

AVIDICUS comparative studies – part I: Traditional interpreting and remote interpreting in police interviews

1 Introduction

One of the major aims of the AVIDICUS project was to assess the viability and reliability of video-mediated interpreting in criminal proceedings from an interpreting perspective. There are already many instances of video-mediated interpreting in criminal proceedings (and other legal proceedings), and given the new European Directive on the rights to interpretation and translation in criminal proceedings,¹ which allows the use of videoconferencing to gain access to qualified legal interpreters, the extent of video-mediated interpreting in this area of justice is likely to rise. However, there is a dearth of systematic research in this area. To the best of our knowledge, no study has systematically investigated the quality of the interpreters' performance in video-mediated interpreting in criminal proceedings. In addition, research on video-mediated interpreting conducted in other areas has generated mixed findings, depending on the setting investigated and the research methods used (see Braun & Taylor's contribution on current practice in this volume for an overview).

Videoconferencing technology is often introduced in the judicial system to save costs. Sossin & Yetnikoff (2007: 248) argue (albeit with reference to immigration) that "questions of financial resources and structures" cannot be separated "from the question of fairness and reasonableness" of judicial decision-making. Procedural fairness is closely linked to the quality of the communication, and in national and transnational cases involving more than one language the quality of the interpretation is a crucial element.

A sufficient quality of interpreting performance must therefore be regarded as a *conditio sine qua non* for the use of video-mediated interpreting in criminal proceedings. The question of the viability of video-mediated interpreting must override all considerations of potential financial savings, especially if it turns out that the use of video-mediated interpreting changes the proceedings beyond what is acceptable to ensure procedural fairness.

At the same time, the potential benefits of videoconferencing, when appropriately used, must not be cursorily dismissed, especially at a time when the European effort to strengthen the rights of European citizens to translation and interpreting in criminal proceedings and the ensuing likely growth of demand for legal interpreting in Europe coincide – and sometimes compete – with financial constraints imposed on Public Service institutions.

It was with a view to the absence of research-based guidance and in anticipation of the increasing use of video-mediated interpreting in criminal proceedings that the AVIDICUS project set out to investigate the quality of interpreting in such circumstances.

¹ Directive 2010/64/EU of the European Parliament and of the Council on the right to interpretation and translation in criminal proceedings. Available at <http://www.europarl.europa.eu/oeil/file.jsp?id=5840482>. See also Morgan (in this volume).

After reviewing current and planned uses of video-mediated interpreting in a number of European countries and identifying those settings in the justice sphere in which the use of videoconferencing in connection with interpreting is most likely (see Braun & Taylor's contribution on the AVIDICUS surveys in this volume), the project consortium designed a series of experiments to compare the quality of traditional interpreting in such settings with different forms of video-mediated interpreting.

The present chapter focuses on part I of this comparative study, the part conducted by the University of Surrey. However, section 2 will first of all give an overview of the study as a whole, including its rationale, aim and the overall approach. Section 3 will outline the specific aims and the theoretical framework of the study conducted by the University of Surrey, section 4 will describe the methodology used for this part of the study, section 5 will present the major findings, and section 6 will conclude this chapter.

2 The AVIDICUS comparative studies

As was pointed out in Section 1, the rationale behind the comparative studies was that interpreting quality is the key to any conclusion regarding the usability of video-based interpreting in criminal justice. The studies were conducted at three test sites (Surrey – Great Britain; Antwerp/Utrecht – Belgium/Netherlands and Warsaw – Poland).

The AVIDICUS comparative studies have distinguished two forms of video-mediated interpreting: Videoconference interpreting (VCI) is the form of interpreting that is used when the proceedings take place at two different locations (e.g. court and prison) that are video-linked, with the interpreter being situated either at the main site (variant A) or at the site of the other-language speaker (variant B). Remote interpreting (RI) is the form of interpreting that is used when the proceedings take place at a single location (e.g. a courtroom), with the interpreter working via video link from a remote location (e.g. another courthouse).

The aim of the studies was to provide a quantitative and qualitative assessment of the interpreting performance in criminal proceedings that involve a video link (either to link two judicial locations or to link a judicial location and an interpreter). The focus was on the identification of critical instances in the interpretations.

Given the lack of an agreed research method for this novel area of research, it was decided to adopt an eclectic approach to the collection and analysis of the data, albeit with a common core, which consisted of the following elements:

1. All studies should be comparative in nature, comparing one or more forms of video-mediated interpreting with traditional face-to-face interpreting in the same setting.
2. All studies would be based on simulations, using legal practitioners, legal interpreters and role players as suspects or witnesses.
3. The focus should be on the early stages of proceedings, because it had been found that the small body of research on video-mediated interpreting in a legal context had focused on court proceedings (see Braun & Taylor's overview of current practice in this volume).
4. A further reason for focussing on the early stages of proceedings was that these stages were anticipated to require increased attention in the near future because

of the reinforced right to translation and interpreting in criminal proceedings, as reflected in the new EU Directive.²

5. The focus should be on small-group communication as a first step before testing more complex settings such as court proceedings.

In line with these premises, the following research designs were used:

- The **Surrey site** conducted an in-depth comparison of traditional face-to-face interpreting and remote interpreting, using a police interview setting and comparing eight instances of each type of interpreting, resulting in a total of 16 interpreting sessions (see sections 3-5 below).
- The **Antwerp/Utrecht site** expanded the comparison to include face-to-face interpreting, remote interpreting and videoconference interpreting variants A and B. The setting was also a police interview, and four instances of each were compared, resulting in a total of 16 interpreting sessions (see Balogh & Hertog in this volume).
- The **Warsaw site** compared traditional face-to-face interpreting and the two forms of videoconference interpreting (variant A and B) in a prosecution setting, comparing 3 instances of each, i.e. a total of nine instances (see Miler-Cassino and Rybińska in this volume).

Thus, each of the three relevant forms of video-mediated interpreting was covered at two sites, with a combination of different small-group communication settings (police and prosecution). A total of 41 interpreting sessions was conducted, of which 12 included remote interpreting, 14 used the two variants of videoconference interpreting and 15 involved face-to-face interpreting. All sessions were video-recorded, transcribed, and then analysed quantitatively and qualitatively, using the transcripts and video recordings. The analysis was based on a set of analysis criteria drawn from research into interpreting quality, verbal, non-verbal and visual communication. In addition, semi-structured interviews with the participants were conducted to elicit further qualitative data.

Distinctions were made with regard to the focus of comparison. Since remote interpreting (RI) is perceived by many interpreters to be the most difficult form of video-based interpreting (see Braun & Taylor's contributions on current practice and on the AVIDICUS surveys in this volume), it was decided to conduct one in-depth study on this form of interpreting (Surrey). Moreover, the study of RI is important because it may be the form that is in highest demand, especially in the initial stages of criminal proceedings (interviews with suspects, witnesses), but also in other settings (e.g. healthcare). At the same time, a comparison of all forms of video-mediated interpreting was envisaged, hence the studies in Antwerp and Warsaw. These studies took into account the need for cross-border videoconferencing with distributed participants, and focused on different settings (police and prosecution interviews [at pre-trial stage], see Balogh & Hertog and Miler-Casino & Rybińska in this volume respectively).

² In addition to the directive on the right to translation and interpreting in criminal proceedings, the European 'Roadmap for strengthening procedural rights of suspected or accused persons in criminal proceedings' (see Morgan in this volume) also foresees further rights, such as the right to legal aid and the right to information, whose implementation may have an impact on the extent of interpreting services needed especially in the early stages of criminal proceedings.

3 The Surrey study: Aim and relevant theoretical framework

The specific aim of this part of the comparative study was an in-depth analysis of the interpreting quality in police interviews with suspects involving remote interpreting compared to the interpreting quality in interviews using traditional interpreting, in order to assess the viability of remote interpreting in the context of criminal justice.

The study drew on a variety of complementary theoretical frameworks relating to communication, interpreting and videoconferencing. Using a genre-based approach to communication, the police interview with a suspect is conceptualised here as a purpose-driven communicative event with specific goals and hence specific moves and 'rules' (see e.g. Berk-Seligson 2009 and Rombouts in this volume). This implies that whilst there are different types of interview, core elements such as eliciting a suspect's version of events and asking in-depth questions constitute common 'moves' in most suspect interviews. Furthermore, police interviews are understood here as instances of dyadic, i.e. two-way communication, following basic rules of communication management, especially rules of turn-taking and alignment of the participants (Sacks *et al.* 1974; Goffmann 1981, Gumperz 1982; Schiffrin 1994), which contribute to the meaning and the dynamics of the communication.

The use of an interpreter in a police interview inevitably changes the dynamics of the interview to a certain extent, for two reasons. The first and perhaps most obvious of these is that the type of interpreting normally required in police interviews, i.e. two-way consecutive interpreting, is a type of interpreting that gives the interpreter relatively high 'visibility' (compared to e.g. simultaneous conference interpreting, where the interpreter works in a booth). Two-way consecutive interpreting is therefore normally perceived as a 'triadic' situation with specific patterns of communication management, and the interpreter has been shown to play an important part in the alignment of the participants and the coordination of the talk in such situations (Wadensjö 1998; Mason 1999, 2001).

The other reason for the change in the dynamics of the communication is that interpreting is a highly strategic cognitive-linguistic process of discourse comprehension and production (Alexieva 1998; Gile 1991, 1993; Kohn & Kalina 1996; Kalina 1998; Mead 2002; Braun 2004; Riccardi 2005) in which the interpreter forms his/her (own) understanding of the source text and produces his/her version of this in the target language. In other words, each interpreter will produce a different version. Due to the cognitive complexity of interpreting, involving multitasking (Gile 1991, 1993) and rapid decision-making (Alexieva 1998), interpreters often work at the limit of their mental capacity and have to act highly strategically to balance different requirements such as the accuracy and completeness of the message, the appropriateness of expression and register, and the fluency and timeliness of delivery. At the same time, the specific requirements of legal interpreting (see e.g. Berk-Seligson 1990, 2009; Hale 2007, Hertog 2001, 2003; Kadric 2001; Mikkelsen 2000; see also Braun in this volume), for example, in terms of accuracy and completeness, impose constraints on the use of some common interpreting strategies, especially coping strategies such as generalisations or omissions of parts of the message. Legal interpreting commands special emphasis on achieving accuracy, completeness and avoidance of misunderstandings, e.g. through asking for clarification of meaning. It also requires the accurate reproduction of different registers and of features of the source text delivery, since the choice of register (e.g. colloquial language) may be as meaningful in a legal context as a stutter or hesitant delivery. Any

potential change in the dynamics or meaning of the communication needs to be minimised.

Prior research suggests, however, that in video-mediated communication and video-mediated interpreting it may be even more difficult than in traditional interpreting situations to grasp and relay meaning reliably and that the technological mediation may change the dynamics of the communication even further, depending, for example, on the distribution of the interlocutors and the interpreter (see Braun & Taylor's overview of current practice in this volume for an overview of prior research on video-mediated communication and interpreting).

What was unknown prior to commencing this study was to what extent traditional and video-mediated legal interpreting would differ in terms of quality, and whether video-mediated legal interpreting would be reliable enough especially for evidential purposes (see also Corsellis 2006). These were the major research questions of the study reported here.

The challenge was to develop a methodology that would enable the researchers to isolate those problems of video-mediated interpreting that are specifically caused by the technological mediation rather than by the challenges of legal interpreting or interpreting as such. To this end, a comparative study was designed, and existing approaches to assessing interpreting quality (Kalina 2002, 2005; Kurz, 2001, Pöchhacker 1994, Shlesinger 1997) were adapted to suit the needs of assessing the quality of interpreter performance in video-mediated interpreting in a legal context. One aspect that was given particular attention was prior work on non-verbal and visual communication in the context of interpreting (Bühler 1985; Poyatos 1997; see also Knapp & Hall 2009⁵). The role of this prior work and the category system derived from it will be explained in the following section, which outlines the research methodology used in the Surrey study.

4 Method

4.1 Informants and design of the study

The study was based on a simulation of police interviews. It involved

- eight experienced legal interpreters working between French and English,³ all with a minimum of five years experience interpreting in police interviews,
- three English police officers with experience in working with interpreters
- two French native speakers in the role of a 'detainee'

Two interview scripts were used, one based on a case of physical assault, another based on fraud and obtaining money by deception. The scripts were based on anonymised records of real police interviews from two police constabularies in England.

The interpretation was delivered sequentially in short-consecutive mode. Each interpreter worked with one interview in the face-to-face session and another one in the videoconference session. The two interviews were used as shown in the test matrix in Table 1.

³ All but one of the interpreters were native speakers of French.

Interpreter		1	2	3	4	5	6	7	8
Traditional interpreting	interview script:	A	B	A	B	A	B	A	B
Remote interpreting	interview script:	B	A	B	A	B	A	B	A

Table 1: Test matrix

In the traditional setting, the police officer and the detainee faced each other, and the interpreter sat next to the detainee, as is common practice in police interviews in England (see Figure 1).

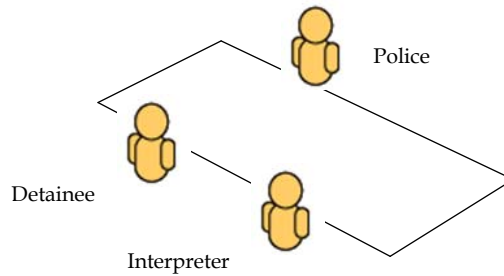


Figure 1: Seating order in the face-to-face sessions

In the interviews that involved a video link between the interview room and the interpreter, an Access Grid videoconference system, based on H.264 standard, with high-quality sound, boom microphones and four cameras was used. In the interview room, the images were projected onto a wall. In the interpreter’s room, a 19” screen flat screen, one camera and a table microphone were used. Although the interpretation was consecutive, the interpreters wore a headset to ensure good sound quality and to avoid disturbances.

The police officer and the detainee, who were in the ‘interview room’, faced each other, as in the face-to-face interviews. The wall onto which the video images were projected was perpendicular to them. All participants saw the following (see Figure 2): an overview of the interview room with police officer and detainee, a close-up of the police officer and the detainee, and a close-up of the interpreter. However, the interpreters were able to choose whether or not they wanted to see their own image. Some interpreters chose not to see it, which led to problems during the session (see below).



Figure 2: View on the videoconference screen

4.2 Data collection and analysis

Video recordings of interviews were made in the ‘interview room’, using two camcorders. A total of eight hours of interpreting were recorded and subsequently transcribed, amounting to a data corpus of 67,000 words. In addition, the participating interpreters and police officers completed a pre-session questionnaire and were interviewed after their sessions to elicit their views on how the sessions went.

Based on Kalina’s (2002) criteria for the assessment of interpreting performances, a comprehensive category system which mainly refers to conference interpreting, a set of analysis categories was developed which included categories that were adapted to two-way consecutive interpreting in a legal context. Moreover, categories for the analysis of non-verbal and visual communication were added.

The following steps were carried out in the analysis:

1. The two police interviews were divided into genre ‘moves’, i.e. small, meaningful units of interaction, including:
 1. Introduction
 2. Caution
 3. Preliminary Enquiries
 4. Suspect’s version
 5. Police Officer’s in-depth questions
 6. Conclusion of the interview
2. As stated above, a category for the analysis of communication problems and interpreting quality was devised, including:
 - Language-based categories, e.g., omissions, additions, inaccuracies, lexical/terminological problems, turn-taking problems
 - Non-verbal + visual categories, e.g. problems with gaze, being out of shot
3. Using these categories, the interviews were coded by three raters, and a final agreement was achieved in subsequent discussions between the raters.
4. A quantitative analysis was carried out, i.e. a comparison between data from face-to-face and remote interpreting.
5. An additional qualitative analysis was conducted to assess the scale of the emerging problem areas and identify critical instances.
6. The data were triangulated with the survey results and post-test comments made by the interpreters and police officers.

The following section reports the main results of the study.

5 Main results

5.1 Overview: quantification of problems

The quantitative analysis of the 16 interviews (8 in face-to-face mode and 8 in remote mode; 67000 words in total) in terms of the major categories of problems resulted in the breakdown shown in Table 2.

	Face-to-face interpreting (FTF)	Remote interpreting (RI)	RI / FTF FTF=100%
Inaccuracies	89 (11.1)	110 (13.8)	124%
Omissions	68 (8.5)	108 (13.5)	159%
Additions	10 (1.3)	29 (3.6)	290%
Linguistic problems: lexis/terminology, idiomaticity, grammar, style/register, coherence, language mixing	204 (25.5)	260 (32.5)	127%
Paralinguistic problems 1: articulation, hesitation, repetition	316 (39.5)	417 (52.1)	132%
Paralinguistic problems 2: false start, self-repair	261 (32.6)	287 (34.9)	110%
Synchronisation problems (turn-taking)	34 (4.3)	110 (13.8)	324%

Table 2: Distribution of problems (in brackets: average per interview)

The focus of the analysis categories was in line with the priorities of the specific requirements of legal interpreting as outlined in Section 3. Among the major categories were, therefore, for example, omissions, additions and inaccuracies. The expectation was that the number of problems would be higher in remote interpreting in all of these categories, and this expectation was confirmed by the analysis, albeit to varying degrees. In the category of inaccuracies, for example, the difference between the two forms of interpreting seems to be small, with 89 inaccuracies in traditional interpreting and 110 in remote interpreting. However, an in-depth analysis of the instances in this category revealed a number of important differences, as shown in Table 3.

	FTF	RI	RI / FTF FTF=100%
Distortions	19 (2.4)	38 (4.8)	200%
Minor distortions	15 (1.9)	15 (1.9)	100%
Minor other inaccuracies	43 (5.4)	40 (5.0)	93%
Inaccurate names and numbers	12 (1.5)	17 (2.1)	142%
Total	89 (11.1)	110 (13.8)	124%

Table 3: Distribution of different types of inaccuracies (in brackets: average per interview)

Distortions, the most problematic of all of the 'inaccuracy' categories, were twice as frequent in the remote mode. On average, each interview that used remote interpreting contained 5 major distortions. These were mainly caused by one more of the following:⁴

⁴ PO = police officer; INTP = interpreter; DET = detainee; in italics: English gloss

- Conceptual misunderstandings of what was said:
 - PO: I want you to confirm what happened.
 - INTP: Je voudrais vous en parler.
I would like to talk to you about this.
- Mishearings:
 - DET: Elle m'accusait devant tout le monde.
She was accusing me in front of everybody.
 - INTP: And she was abusing me in front of everybody.
- Misrenderings, i.e. apparently correct understanding but wrong rendition:
 - PO: This is the rule that was seized today.
 - INTP: C'est donc la règle qui a été utilisée aujourd'hui.
This is the rule that was used today.
- Misrepresentation of the speaker's intentions:
 - PO: Is there anything else you want to know before we start?
 - INTP: Est-ce que vous voulez, euh, est-ce que vous me comprenez bien? Est-ce que vous m'entendez bien?
Would you like, uh, can you understand me well? Can you hear me well?
- Summary renditions:
 - PO: Then I said, 'The people at the cab office said you did [hit Ms Jones]'.
 - INTP: Ensuite-, ensuite, euh, j'ai dit, euh, ce que les employés à la station de taxi ont dit.
Then, then, uh, I said, uh, what the employees at the taxi stand said.

The in-depth analysis of other categories such as omissions and additions shows a similar picture. Given the specific requirements of legal interpreting, the problems identified in this study seem to put constraints on the use of video-mediated interpreting in criminal proceedings. At least, it would seem reasonable to restrict its use to the simplest cases of low impact crime until further knowledge has been gained, for example, about how the design of videoconference systems and the training of interpreters and legal practitioners may help to reduce the problems currently arising (see also van Rotterdam & van den Hoogen and Esteban Causo in this volume on system design, and Braun in this volume on recommendations for the use of video-mediated interpreting in criminal proceedings).

5.2 Correlations between categories

Some types of problem had a tendency to co-occur with other types of problems. In particular, there was a strong correlation between turn-taking problems and omissions, and this correlation was stronger in RI. Thus, as shown in Table 4, only 3 of the 34 turn-taking problems identified in FTF (i.e. 9%) entailed an omission in the target text, whilst as a conservative estimate at least 16 of the 110 turn-taking problems identified in RI (i.e. 15%) caused an omission in the target text. In most of these cases, the omission went unnoticed and therefore led to a loss of information.

	FTF	RI
Omissions	68	108
Turn-taking problems	34	110
Turn-taking problems with omission	3	16
Proportion of all omissions	4%	15%
Proportion of all turn-taking problems	9%	15%

Table 4: Correlation between turn-taking problems and omissions

The most common type of turn-taking problem, and the source of all related omissions as shown above, was overlapping speech between the interpreter and one of the primary interlocutors, as in the following example (the square brackets indicate overlapping speech):

DET: Et je travaillais à H et M l'année passée, à [mi-temps.]
And I worked part-time for H and M last year.

INTP: [Last year], I, I worked with H and M.

The interpreter uses a common interpreting strategy here. She begins to interpret while a primary interlocutor (here the detainee) is still talking but about to complete his/her utterance. In traditional police interpreting, this technique saves time in the communication and is also an efficient way for the interpreter to gain the floor, i.e. to indicate directly that she wants the detainee to stop. In the interviews that were interpreted via video link this did not work so effectively, because overlapping speech normally caused disruption and uncertainty.

Similar problems with overlapping speech in dialogue interpreting via video link were also found by Braun (2004, 2007) and in the 2010 Virtual Court pilot in England (Ministry of Justice 2010). The recurrence of overlapping speech in different settings⁵ and its potentially serious consequences suggest that the avoidance of overlapping speech is a particularly important aspect for guidelines and training.

5.3 Distribution of problems on a timeline

Another part of the analysis focused on the distribution of interpreting problems on a timeline. For this purpose, the interpreting problems in each genre move were counted separately, as shown in Figure 3 below.

⁵ Unlike the present study, interpreting in the Virtual Court pilot is an instance of 'videoconference interpreting' with two participant locations and the interpreter being at one of these. However, the mode of interpreting used in the Virtual Courts is consecutive, as in the present study. By contrast, Braun's (2004/2007) setting involved three locations: The primary interlocutors were at two different locations, and the interpreter was at a third location, and the mode used was simultaneous interpreting. In spite of the simultaneous mode, overlapping speech occurred in this setting, for example, when the interlocutors talked over the interpreter, believing that s/he had completed rendering the previous speaker's turn, whilst the interpreter just paused.

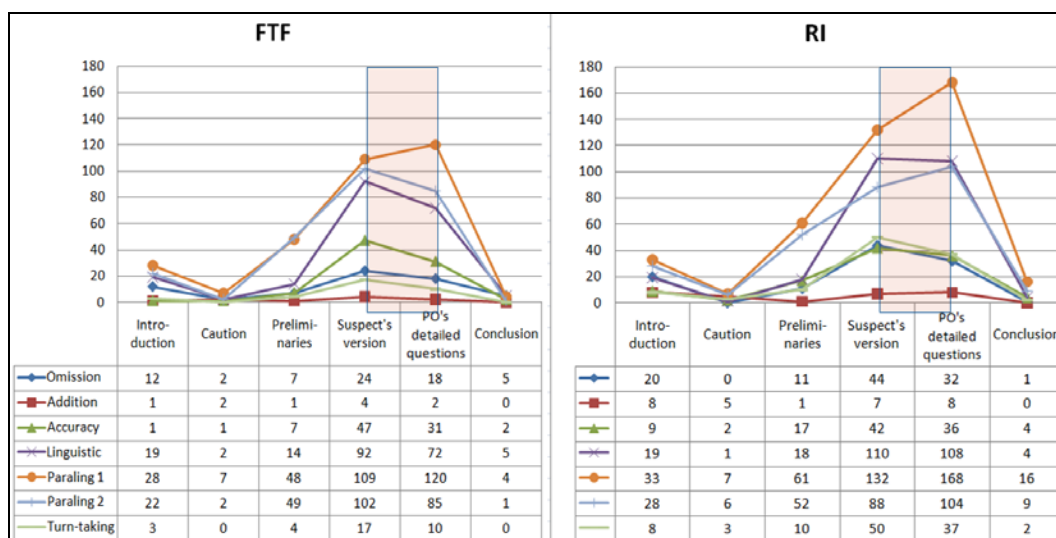


Figure 3: Interpreting problems on a timeline in traditional face-to-face interpreting (FTF) and remote interpreting (RI) in the simulated police interviews

What can be seen at first glance is an increase in interpreting problems towards the middle of interviews. However, since the genre moves at the beginning and end (introduction, caution and conclusion) were much shorter than the moves in the middle, this is not surprising. The interesting point is the second observation: At the transition from the genre move entitled ‘Suspect’s version’ to the move entitled ‘PO’s detailed questions’ (highlighted in Figure 3), the number of problems in face-to-face interpreting drops in most categories or at least stops rising steeply (paralinguistic problems 1). By contrast, in the interviews using remote interpreting, the problems in some of the categories (paralinguistic problems 1, omissions and additions) continued to rise, and in the case of the paralinguistic problems, the increase is steep. In other words, the patterns in the two sets of data begin to diverge in the second half of the interview. In the sessions using remote interpreting, the number of problems does not drop as much as in the sessions using traditional interpreting.

Gile (2009) and Mead (2002) have pointed out that paralinguistic problems are often indicative of other, underlying problems with the interpreter’s processing capacity. Given the feedback from the interpreters in the comment sessions and also the responses of interpreters to the AVIDICUS survey among legal interpreters (see Braun & Taylor in this volume), the likeliest reason for the steeper increase of problems in remote interpreting in the second half of the interviews is the onset of fatigue half way through the interview.

Given that the simulated sessions were on average 30 minutes long, the findings suggest that problems may arise with the interpreting performance in a real-life situation unless the communication is of very short duration. This result becomes even more critical in view of the differences in length between face-to-face and video-based sessions, which will be reported in the following section.

5.4 Length of interviews and word count

On average, the interviews conducted using remote interpreting were 19% longer than the interviews using traditional face-to-face interpreting. By contrast, the word count of

the two sets of interviews was not significantly different, with the result that the average speech rate in the interviews conducted using remote interpreting is lower than the speech rate in the face-to-face sessions.

Word count	FTF	RI	RI / FTF FTF=100%
Total number of words	32681	33931	104%
Police officer	6783	7106	105%
Detainee	8325	8397	101%
Interpreter	17573	18428	105%
Length of interviews in minutes	193	230	119%
Average speech rate (words per minute)	170	147	87%

Table 5: Basic statistics of the interviews

The lower speech rate in the video-based sessions, i.e. the fact that the participants spoke more slowly and/or made more frequent pauses, may have been caused in part by frequent instances of speaking louder than in the face-to-face sessions. Judging by the number of problems in the video-based sessions, however, neither the lower speech rate nor the interlocutors' tendency to speak louder seems to have helped the interpreters with their interpreting task. Conversely, the rise in the number of problems in the second half of the video-based sessions, suggests that the lower speech rate in connection with a raised voice may even have been more tiring for the interpreters to listen to than the more naturally flowing speech in the face-to-face sessions.

Furthermore, whilst the lower speech rate goes some way to explain the longer duration of the video-based sessions, it may not have been the only reason. A more detailed qualitative analysis of the data shows that the video-based sessions also required what Olson, Olson & Meader (1997: 170) called a greater "process overhead", for example to coordinate the communication or to resolve comprehension problems. This would explain why all groups of participants used a slightly higher number of words in the video-mediated sessions. Braun (2004, 2007) also found that videoconference participants (in interpreted videoconferences) were repetitive, their speech marked by redundant expressions. This finding was not replicated by the present study, but it may be argued that the tendency to use redundant expressions was constrained by the fact that the police officers and detainees followed a script. Further research will be required to show whether different conditions will produce more redundant speech in video-mediated criminal proceedings, or whether the communication genres that are relevant in criminal proceedings will counteract this tendency.

In any case, the clear differences in length suggest that the video-based sessions were on the whole less efficient than the face-to-face sessions. This is corroborated by a number of other observations which are more difficult to quantify. Some of these will be discussed in following section.

5.5 Dynamics of the communication

One problem area that is much more difficult to quantify in a meaningful way is the dynamics of the communication. This includes the ways in which turn-taking is coordinated, but it is not confined to this. Another important dimension of the dynamics of the communication is the ‘rapport’ or communicative bond between interlocutors. As Gumperz (1982) has shown, the creation of rapport relies, for example, on the use of a variety of verbal and non-verbal signals (e.g. a quick glance at an important point in the conversation to check whether the message has been understood), and on the addressee’s well-timed reactions to such signals (e.g. meeting someone else’s quick glance as a way of confirming understanding). When successful, such signals may promote cooperation, agreement and common understanding. By implication, a lack of rapport can contribute to misunderstandings or at least make communication more difficult.

In a videoconference, some of the rapport-creating signals seem to be more difficult to employ effectively, and timely reactions to each other seem to be more difficult to achieve. In particular, gaze and eye contact are very difficult to control even with the best possible positioning of cameras and screens. In one of the interviews conducted using remote interpreting, for example, the interpreter hesitated when rendering the charge. She appears to be searching for the correct expression. The police officer noticed the pause and looked at the screen towards the interpreter, but seemed unable to detect that the interpreter had a problem. After a short while, he continued his utterance without giving the interpreter enough time to complete her interpretation.

To return to turn-taking, Wadensjö (1998) has argued that the way in which the interpreter controls the floor can be seen as more or less cooperative and hence can either strengthen or weaken the communicative bonds. If the interpreter succeeds, for example, in starting to speak while the detainee is completing his or her sentence, and in using this to indicate very ‘gently’ to the detainee that s/he should stop talking, this is a good communicative achievement, as it avoids disruption and ‘fighting’ for the floor. However, as was noted in Section 5.2, there were problems with this strategy because of the general problems with overlapping speech in videoconferences. At the same time, another common strategy used by interpreters to gain the floor, raising their hand, also failed at times, because the interpreter’s hand was out of shot (one interpreter in particular had chosen not to see her own image and therefore had no control over whether or not her hand was captured by the camera). The only solution for the interpreter to stop a speaker was, therefore, often to intervene verbally. This caused considerable disruption in places, because the interpreter had to raise his/her voice in order to be noticed, with the likely result that the interpreter was perceived as uncooperative or even incompetent.

Furthermore, the problem mentioned in Section 5.4, that the interlocutors, especially the police officers, often raised their voices, is also likely to have an impact on the overall dynamics of the communicative situation, as is the fact that because of the room layout used in this study (officer and detainee facing each other, screen perpendicular to them),⁶ the officer and the detainee often looked towards the screen (i.e. towards the interpreter) rather than at each other. The possible impact of these problems on the dynamics and the

⁶ This layout was chosen, because it is currently being implemented at the interpreter hubs of the Metropolitan Police Service in London, and will therefore be used in real-life situations soon.

outcome of the communication as well as the extent to which the interlocutors are able to adapt their behaviour have to be investigated further.⁷ In the meantime, it will be important to make reference to such problems in guidelines and training.

6 Conclusions

Broadly speaking, remote interpreting was found to magnify known problems of (legal) interpreting to a certain extent. This includes linguistic and cultural problems (terminological issues, culture-bound references) as well as problems associated with an overload of the interpreter's cognitive processing capacity (e.g. paralinguistic problems such as hesitations and repairs). As a consequence, the number of serious interpreting problems (e.g. omissions, additions, distortions, lexical/terminological problems, paralinguistic problems, turn-taking problems) was higher in remote interpreting compared to face-to-face interpreting. Furthermore, a range of additional problems for the interpreter were observed including, for example, problems with gaze and eye contact, sound and listening comprehension, communication management and the coordination of the talk, and rapport with the remote interlocutors.

In line with prior research on remote conference interpreting by Moser-Mercer (2003), the number of problems was found to increase faster during the videoconference sessions than in the face-to-face sessions, suggesting an earlier onset of fatigue of the interpreter.

One of the dilemmas was that familiar interpreting strategies (e.g. the use of visual signs to control the floor), did not always work well in the videoconference situation, whilst their replacement by other strategies (e.g. verbal intervention) seemed to be disruptive or to cause uncertainty.

To interpret these findings, the limitations of the studies have to be borne in mind. Firstly, the study is based on simulations, because real-life data were not available at the time of conducting this research. However, there are also a number of advantages associated with the use of simulations, e.g. the control of variables, which was an advantage at the present stage of the research. Another possible limitation was the use of scripts in the simulations, which meant that interpreting problems did not always have real consequences because the participants tended to return to the given storyline even if it had been distorted by an inaccurate or incomplete interpretation. However, the initial problems could still be analysed, making it possible to extrapolate the scale of problems in real-life situations.

The small size of the sample makes it difficult to assess (and calculate) the significance of the differences found between the two forms of interpreting and puts a limitation on the validity of the findings, although the general trend is that remote interpreting is more difficult and creates more problems than traditional face-to-face interpreting. One further limitation is that only one language pair was involved. However, the other partners in the AVIDICUS Project carrying out comparative studies used different language pairs and came to similar conclusions (see Balogh & Hertog and Miler-Cassino & Rybińska in this volume).

Moreover, this study has focused on one particular setting, a police interview, which is normally highly regulated and formulaic. It remains to be seen what kind of

⁷ These aspects are currently being investigated in AVIDICUS II (EU DG Justice grant, JUST/2010/JPEN/AG/1558, 2011-2013).

(additional or different) problems other, less regulated settings such as lawyer consultations would generate.

Finally, the analysis in this study has focused on interpreting quality as such. This is only one step on the way to a more comprehensive assessment of the viability of video-mediated criminal proceedings that involve an interpreter. What needs to be analysed in future are further possible changes in the dynamics of the communication beyond the changes described in Section 5.5, and the potential impact of such changes on the specific goals of the communication in criminal proceedings.

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