Keep your distance? Remote interpreting in legal proceedings: A critical assessment of a growing practice¹

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Abstract

Remote interpreting, whereby the interpreter is physically separated from those who need the interpretation, has been investigated in relation to conference and healthcare settings. By contrast, very little is known about remote interpreting in legal proceedings, where this method of interpreting is increasingly used to optimise interpreters' availability. This paper reports the findings of an experimental study investigating the viability of videoconference-based remote interpreting in legal contexts. The study compared the quality of interpreter performance in traditional and remote interpreting, both using the consecutive mode. Two simulated police interviews of detainees, recreating authentic situations, were interpreted by eight interpreters with accreditation and professional experience in police interpreting. The languages involved were French (in most cases the interpreter's native language) and English. Each interpreter interpreted one of the interviews in remote interpreting, and the other in a traditional face-to-face setting. Various types of problem in the interpretations were analysed, quantitatively and qualitatively. Among the key findings are a significantly higher number of interpreting problems, and a faster decline of interpreting performance over time, in remote interpreting. The paper gives details of these findings, and discusses the potential legal consequences of the problems identified.

Keywords: remote interpreting, videoconferencing, legal proceedings, police interviews, quality

1 Introduction

The last two decades have seen an increase in the use of videoconferencing in legal proceedings. This has also affected the work of legal interpreters, leading, as it has done, to a variety of videoconference-based settings: working through video links between courts and remote witnesses or courts and detainees in police stations, detention centres or prisons is becoming common practice for interpreters in many countries (Braun & Taylor 2012a, 2012b; Ellis 2004; Fowler 2007). This form of interpreting, whereby the interpreter is physically separated from some but not all primary interlocutors, has been termed 'videoconference interpreting' (Braun 2006; Mouzourakis 2006). A related, but different development is the use of videoconference-based 'remote interpreting' (RI) in legal proceedings, whereby it is the interpreter who is linked to the proceedings from a remote location such as a central videoconferencing hub. This means that RI entails the physical separation of the interpreter from *all* primary interlocutors.²

The distinction between the two forms is not simply a matter of differences in participant distribution. There are different underlying motivations, too. Videoconference interpreting is a consequence of using video links between the primary participants: such links are increasingly employed, especially in immigration hearings

and criminal cases, as a means of saving money, reducing delays and overcoming security issues (such as the possibility of a detainee's escape during transport to court). By contrast, the purpose of RI in legal contexts is normally to gain (timely) access to an interpreter and/or to make interpreter deployment more efficient.

RI has been used and studied in conference and healthcare settings (Andres & Falk 2009; Azarmina & Wallis 2005; Moser-Mercer 2003; Mouzourakis 1996, 2006; Roziner & Shlesinger 2010). In legal contexts, it has so far been employed mainly in the US (Braun & Taylor 2012a). A well-known example is the RI service of the 9th judicial circuit in Florida, which started in 2007, using simultaneous interpreting.³ In European and other jurisdictions, the use of RI is still scarce. There are, however, some examples which go against the general trend in this respect. The Metropolitan Police Service in London introduced RI in August 2011, with interpreters working in consecutive mode from centralised videoconferencing hubs linked to London police stations (Clement & Brooker 2011).

In Europe as a whole, the situation might be set to change rapidly. Access to interpreters has become a major concern in the criminal justice system. European Directive 2010/64/EU on the right to interpretation and translation in criminal proceedings,⁴ which has to be implemented in the Member States by 2013, highlights the need for quality in translation and interpreting, and explicitly refers to the possibility of using videoconferencing as a means of gaining access to a qualified legal interpreter (Art. 2.6).

At the same time, research into the use of videoconferencing in legal proceedings has called for the utmost caution until such time as its consequences are fully appreciated (e.g. Federman 2006; Haas 2006; Harvard Law School 2009; Johnson & Wiggins 2006; Poulin 2004; Sossin & Yetnikoff 2007). With regard to cost-saving through videoconferencing, for example, Sossin and Yetnikoff (2007) contend that the availability of financial resources for legal proceedings cannot be separated from the fairness of judicial decision-making. On the question of eliminating delays, the Harvard Law Review warns that the use of videoconferencing may result in a situation whereby "individuals gain speedier entrance [to a court] but fewer receive the opportunity to be heard in a meaningful manner" (Harvard Law School 2009: 1193).

In multilingual proceedings, procedural fairness and "the opportunity to be heard in a meaningful manner" are closely linked to the quality of the interpretation. The question arising is whether the current emphasis on speed and cost-saving is conducive to an environment in which an appropriate quality of interpreting can be achieved.

Such is the context in which the present paper addresses the viability and quality of RI in legal proceedings. It reports on a comparative study of traditional and remote interpreting in police interviews, the aim being to investigate possible differences in the interpreters' performance and assess potential implications for the use of RI in legal contexts.

The study was designed when Directive 2010/64/EU and various official texts that refer to the possibility of RI, such as the Multiannual European e-Justice Action Plan,⁵ were still work in progress. The broader aim was for the outcomes of the study to feed into the development of guidelines for the use of videoconference-based interpreting in criminal proceedings (Braun 2012), in order to mitigate potential risk of miscarriages of justice through the combination of videoconferencing and interpreting.

Against this background, the paper is structured as follows. Section 2 looks at earlier approaches to investigating interpreting quality in RI. Section 3 explains the research design adopted for the study reported here. Section 4 presents its main quantitative and qualitative findings, and discusses their implications. Section 5 concludes the paper with an overview of the key findings, an assessment of their validity and limitations, and questions for future research into the practice of RI.

2 Interpreting quality in RI

In legal interpreting, especially in lower criminal courts, police stations, probation and prison contexts and immigration hearings, the interpreter's presence is normally a very obvious feature. This is because it is highlighted by two factors: the use of consecutive and/or whispered interpreting, and the interpreter's physical proximity to the primary interlocutors, which is traditionally associated with these modes of interpreting. By contrast, RI removes the interpreter from the main communication site. The issues this raises for the quality of the interpretation are only one set of the many questions raised by RI, but it is the set of questions this section will focus on.

The concept of quality in interpreting is itself in need of some clarification (Grbić 2008). In relation to legal interpreting, quality has been addressed indirectly through the observation, description and assessment (mostly focusing on small samples) of current practice (e.g. Berk-Seligson 2000, 2009; Hale 2004; Jacobsen 2008; Krouglov 1999; Mason & Stewart 2001; Pöllabauer 2005; Russell 1992). In other fields of interpreting, quality has been approached through the interpreters' and clients' perceptions of interpreting performance (Bühler 1986; Kurz 2001; Pöchhacker 2000). Studies of this kind have made it possible to establish certain general observations – for example, that the interpreters are more critical in their assessment than their clients, and that client perceptions (and expectations) vary according to the communicative situation. To measure an interpreter's actual performance in a given situation, different approaches have been suggested, ranging from Barik's (1971) early and rather 'narrow' classification of 'errors' to Pöchhacker's (2001) and Kalina's (2002) comprehensive models of quality assessment. Pöchhacker (2001) contends that quality needs to be broken down into different levels of assessment, but that the overarching criterion needs to be successful communicative interaction. Kalina emphasises that "total objectivity" is not possible and that "[w]hat is needed is a model encompassing the communication situation, the intentions and knowledge bases of different actors (including the interpreter), and any conditions liable to affect the interpreted event" (Kalina 2002: 133).

Just as in the study of traditional interpreting, research into the quality of RI has also ranged from interpreters' and clients' 'subjective' perceptions to 'objective' measures of performance. In relation to simultaneous conference interpreting, the impact of RI on the quality of interpreter performance has been investigated in several experiments (reported in Moser-Mercer 2003; Mouzourakis 2006; Roziner & Shlesinger 2010). Most notably, a 1999 study conducted for the International Telecommunication Union (ITU) included six English-French interpreters (Moser-Mercer 2003), and a 2004 study carried out for the Interpreting Service of the European Parliament involved 36 interpreters working in several language combinations (reported in Roziner & Shlesinger 2010): in both cases, the interpreters' performance in traditional and remote interpreting was sampled over a period of several days and analysed in terms of errors (as a basic type of

assessment criterion). In addition, the interpreters were asked to assess their own performance. In the two studies, the interpreters rated their performance significantly lower in RI than in traditional interpreting. By contrast, the only significant difference in the quantitative analysis of errors emerged in Moser-Mercer's study, which found that the interpreters' performance declined faster over time in RI than in traditional interpreting, especially in the second half of a regular 30-minute turn. In the larger-scale study for the European Parliament, a direct comparison of the interpreters' performance in the two conditions resulted in slightly lower ratings for RI: Roziner and Shlesinger believe this difference to be "minor in practical terms" (2010: 241), showing almost no decline in quality over time.

The most striking result of these studies thus seems to be the discrepancy between 'objective' findings and 'subjective' perception, together with Roziner and Shlesinger's observation that the rather minor differences in objective performance do not seem to be capable of accounting for "the interpreters' sense of discomfort" with RI (2010: 242). Roziner and Shlesinger do, however, suggest a link between the low self-ratings and the interpreters' (traditionally rather negative) attitudes towards RI.

Quality in RI has also been investigated to some extent in healthcare settings. Hornberger et al. (1996) compared onsite consecutive interpreting with remote simultaneous interpreting via audio-only link, and found the latter to be more accurate. This is somewhat surprising when compared to the findings summarised above for studies investigating RI in conference interpreting. Some of the differences may admittedly have been linked to differences in the modes of interpreting used, rather than to the method of delivery; it is also possible that the assessment, which was based on Barik (1971), did not capture all interpreting problems.

Clients' perceptions regarding the quality of RI in healthcare settings have been very positive (Azarmina & Wallace 2005). Given the findings in other fields of interpreting, which have shown that clients' expectations tend to be less rigorous than those of interpreters, this is not surprising; and, as Shlesinger (1997) also warns, clients are not necessarily in a position to assess an interpreter's performance.

In the field of legal interpreting, the quality of RI has not yet received much attention. In terms of interpreter self-perception, a recent survey among legal interpreters in Europe examines their views on videoconference-based interpreting: just like their conference interpreter colleagues, the legal interpreters in the survey perceive RI as being more difficult than traditional interpreting and have partially negative attitudes towards RI, although attitudes seem to vary from one country to another (Braun & Taylor 2012b).

Such perceptions are highly relevant in relation to working conditions and change management. However, the crucial question for RI in legal settings is whether the interpreter's physical absence affects the interpreting quality to such an extent that there is a risk of obstructing the course of justice through the use of this method. Given the discrepancy between 'subjective' perceptions (by clients and interpreters) and 'objective' measures of quality in previous studies, as highlighted above, it seems important to investigate the quality of the actual performance rather than subjective perceptions of it. This implies the use of a set of assessment criteria which are appropriate for the legal context. The research reported here made a first step in this direction by investigating the quality of RI in police interviews through a comparative assessment, using criteria specifically developed for the study. The overall study design, including the assessment criteria, will be outlined in the next section.

The police interview was chosen for several reasons. RI is highly relevant in the police context, since time limits for keeping a person in police custody without charge make timely access to an interpreter an important matter. At the same time, the quality of the interpretation in the initial interviewing stages may have a crucial impact on the course a case takes (see also Russell 2002). From a methodological point of view, the police interview seemed a good choice in so far as it is an instance of small-group communication; it also seemed reasonable to begin by assessing the viability of RI in such a situation, before moving on to more complex settings like court hearings.

3 Methodology

One of the major challenges for a comparison between traditional interpreting and RI is the ability to isolate the interpreting problems created by the videoconference condition from those related to other factors. To meet this challenge, the study was designed as a within-group comparative study of traditional interpreting and RI: a single group of eight interpreters was asked to perform each method of interpreting. In addition, the study was based on simulations. This made it possible to create a controlled environment which would support the isolation of relevant problems. The overall design of the study and the procedure for collecting the data are described in section 3.1. Section 3.2 explains how the assessment criteria were derived from a number of different analytical frameworks.

3.1 *Research design and procedure*

One of the first decisions taken with regard to the design was to limit the study to one language pair, so as to ensure that the available resources (to recruit role players, collect, process and analyse the data) would generate sufficient data for a comparative study. The combination of English and French as active languages was chosen, because a sufficient number of qualified legal interpreters with a similar profile was available in the Guildford/London area for this language pair.

To keep a sense of realism in the simulations, real police officers were recruited for the role of the interviewing officer. French native speakers were used for the role of the detainee. Whilst the time commitment required for the role plays made it impossible to use only one person per role for all interviews, the number of role players was kept as low as possible so as to avoid any bias related to individual differences. Three officers and two ‘detainees’ were used.⁶ In addition, the simulations were based on scripts to ensure comparability across the different versions (see below).

The officers were selected because of their extensive experience in working with an interpreter. This was to make sure that problems likely to arise from a lack of such experience would not interfere with the videoconference-specific problems on which the study focused. Both French speakers understood English: this was thought not to represent a major disadvantage, as it is not uncommon for detainees who are native speakers of other languages to have some command of the main language.

The interpreters were eight legal interpreters who had passed the Metropolitan Police accreditation exam and had a minimum of five years’ experience in police interpreting in England. All but one were native speakers of French. They all stated that they worked

regularly in other legal settings, especially in court, and some stated that they worked in other fields of interpreting as well.

Two interview scripts were used: script A was a case of physical assault, script B focused on fraud and obtaining money by deception. Both were derived from anonymised records of authentic police interviews, which had been made available by two police constabularies in England. Whilst the use of scripts had the disadvantage that the role players knew in advance how the interview would proceed and were aware that problems did not necessarily have consequences, this method ensured a maximum of comparability and still made it possible to gauge the potential impact of any communication problems.

Each interpreter was randomly assigned to a police officer and a detainee, who then performed both interviews. Traditional interpreting was used in one and RI in the other, according to the test matrix shown in Table 1. Each interpreter had a 10- to 15-minute break between the two interviews. The mode of interpreting was consecutive, with short turns. Each interpreter did their interviews on the same day and began with RI. This arrangement meant that they would not meet the role players in person before the RI session, as it would be impossible to do so in actual practice when working remotely.

Table 1. Assignment of interpreters to the two interview scripts

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

The officers and detainees were given the scripts some days in advance of the sessions. The interpreters were briefed upon their arrival at the test site: each interpreter first received a short introduction to the videoconferencing equipment and was then given details of the case by the police officer. This briefing included, for example, the alleged offence, relevant names, places and exhibit numbers. In RI, the briefings took place via video link and were also used to check sound and visibility.

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 (Figure 1).

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

In the interviews involving a video link between the interview room and the interpreter, an Access Grid videoconference system based on the H.264 standard was used: the system comprised boom microphones, ensuring high-quality sound, and four cameras. In the interview room, the images were projected onto a wall. In the interpreter's room, a 19" flat screen, one camera and a table microphone were used. Although the interpretation was consecutive, the interpreters wore a headset to avoid disturbances and ensure good sound quality. The officer and the detainee, who were in the 'interview room', faced each other, as in the traditional setting. The wall on to which the video images were projected was to one side of them.⁷ All participants saw four images, as shown in Figure 2. However, the interpreters were offered the option of removing their own image. Some chose this option: the possibility of problems arising as a result of the interpreters' not 'monitoring' themselves is briefly referred to in the discussion of results (see section 4.5).

Figure 2. View on the videoconference screen

During the interviews, video recordings were made in the 'interview room', using two camcorders. A total of eight hours of interpreting were recorded and subsequently transcribed. In addition, the interpreters and police officers completed a pre-session questionnaire eliciting background information. The interpreters were asked to indicate their qualifications, their interpreting and videoconference experience. The officers were asked about their experience in interviewing, working with an interpreter and videoconference use. Both groups also provided feedback after their respective sessions.

3.2 Frameworks of analysis

As explained in section 2, the main instrument of analysis was to be a set of criteria that would be appropriate for assessing the quality of interpreting in legal contexts. To cover as wide a range of interpreting problems as possible (rather than only 'errors' in a narrow sense of the word), Kalina's (2002) comprehensive set of criteria was used as a starting point. These criteria, which mainly refer to conference interpreting, are used for assessing the semantic content, linguistic performance and presentation of the interpreter's output. Here, the approach was adapted to suit the needs of analysing and assessing the interpreting performance in two-way consecutive interpreting in a legal context. The criteria were 'translated' into a coding scheme that could be applied to the corpus, to retrieve and quantify the problems identified. A number of analytical

frameworks, which are associated with legal interpreting in different ways, were considered in this process.

Starting from a *genre-based approach* to communication, the police interview with a suspect was conceptualised as a purpose-driven communicative event with specific goals and moves (Berk-Seligson 2009). This approach implies that, whilst there are different types and styles 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. In accordance with this, the two interviews were divided into six genre 'moves' and sub-moves, which served as basic units for analysis and comparison of the two interpreting methods. The genre moves are as follows:

1. Introduction
2. Caution
3. Preliminary enquiries by the police office
4. Suspect's version of events
5. Police officer's in-depth questions
6. Conclusion of the interview.

In addition, police interviews were understood as instances of *dyadic (two-way) communication*, which can be analysed in terms of how the participants organise turn-taking, how they align themselves to each other (Goffman 1981; Sacks et al. 1974) and how this contributes to the overall meaning and dynamics of the communication. The analysis of the interpreter's involvement was based on models which, by extension of dyadic communication models, conceptualise *dialogue interpreting as a 'triad'*, revealing specific patterns of turn-taking and participant alignment (Mason 2001; Wadensjö 1998). Equally important, the analysis built on previous research into talk co-ordination in videoconference communication, with and without interpreters (Braun 2004; Finn et al. 1997). In line with this, one set of analysis categories was devoted to problems with talk coordination, including categories to capture non-verbal and visual behaviour such as problems with gaze and eye contact.

From the perspective of information processing, interpreting was considered to be a highly *strategic cognitive-linguistic process* of discourse comprehension and production which involves multitasking and strategic decision-making (Gile 1991, 1993; Kalina 1998; Kohn & Kalina 1996). Previous work shows that interpreters often work at the limit of their mental capacity (Gile 1991, 1993) and act in a highly strategic way to balance different requirements (Kohn & Kalina 1996). Following Gile (1991, 1993) and Mead (2002), it was assumed that problems which this 'balancing' might cause with cognitive processing and mental capacity could manifest themselves in: a) linguistic performance problems, such as difficulties with the activation of a target-language expression; and b) presentation problems, such as hesitation and self-repair. Accordingly, the analysis included a range of linguistic categories (i.e. problems with lexis/terminology, idiomaticity, grammar, style/register, pragmatic problems, language mixing) and paralinguistic or presentation categories (i.e. articulation problems, hesitations, repetitions, false starts, self-repairs). As it is often difficult or impossible to distinguish between competence-related linguistic problems (e.g. insufficient lexical knowledge) and performance-related problems (e.g. problems with lexical activation in the target language), all linguistic problems were coded.

At the same time, the analytical framework had to be sensitive to the *specifics of legal interpreting* (see section 2) – for example, by taking into account that the specific

requirements and different norms of legal interpreting in relation to accuracy and completeness impose constraints on the use of strategies commonly accepted in other types of interpreting (e.g. condensation). This was captured in the design and application of the content-related categories of inaccuracy, omission, (unnecessary) addition and coherence. A further consideration was that legal interpreting demands accurate reproduction of different registers and paralinguistic features of the source text (a stutter in the source text may be meaningful). This was accounted for by disregarding seemingly ‘inappropriate’ register choices or hesitations and other paralinguistic features, when these constituted a reproduction of a source text feature. In cases where such a reproduction was missing in the interpreter’s rendition, this was marked as a style/register problem.

The corpus was coded by three raters, each using a given set of categories. The data were rated on the basis of the transcripts and video clips. Whilst this meant that the raters knew about the two different conditions, it ensured that the data were understood and rated appropriately. Apart from preventing misclassification of problems, the use of the video clips in the rating process also helped uncover problems that a solely transcript-based analysis of the situation would not reveal. A discussion was held to make a final decision on cases of disagreement.

On the basis of the consolidated coding, a quantitative analysis was carried out to enable a basic comparison between traditional interpreting and RI. The significance of the differences was calculated, using both Student’s *t*-test for paired samples (a parametric test, i.e. a test assuming normal distribution) and the Wilcoxon signed-rank test (a non-parametric test, i.e. one that does not assume normal distribution). One-tailed tests were used, the rationale being that the sole purpose was to find out whether RI is as effective as – or less effective than – face-to-face interpreting (FTF).

This was followed by an in-depth qualitative analysis of the main problem areas identified, for example to explore the seriousness of accuracy problems and the nature of linguistic problems.

4 Results

In total, 16 interviews were recorded, eight with the interpreter present in the ‘interview room’ and eight with the interpreter in a remote location. The recordings produced a corpus of 66,612 words (including the utterances of all participants), with two subcorpora of interpreter output of nearly equal size (17,573 and 18,428 words for FTF and RI respectively). This section focuses on the analysis of the interpreting problems in these two subcorpora. It first reports the main quantitative results (4.1) and then presents a qualitative analysis of some of the most prominent problems thus identified (4.2-4.5).

In the eight examples analysed below, each transcribed speech turn in French is followed immediately by an English gloss in *italic script*: this clarifies content for the reader, and also provides a ‘yardstick’ against which to highlight possible problem areas in the interpretation.

4.1 Overview: Quantification of problems

The quantitative analysis of interpreting problems resulted in the breakdown shown in Table 2. The frequency of problems is given in absolute numbers, rather than relative to

the size of the subcorpora for the two methods of interpreting. This is because, bearing in mind that all interpretations were based on the same source material, the main quantitative focus was on the absolute number of problems that this source material created for each method of interpreting, irrespective of the number of words in the resulting subcorpora. (As stated above, both subcorpora were actually similar in size, although a closer analysis of differences between the two would in itself be interesting.)

Table 2. Number and distribution of problems in traditional face-to-face interpreting (FTF) and remote interpreting (RI) (figures in square brackets: average per interview)

Type of problem	Face-to-face interpreting (FTF)	RI (RI)	RI / FTF FTF=100%
Problems with message content:			
Inaccuracies	89 [11.1]	110 [13.8]	124%
Omissions	68 [8.5]	108 [13.5]	159%
Additions	10 [1.3]	29 [3.6]	290%
Coherence problems	34 [4.2]	48 [6.0]	141%
Total	201 [25.1]	295 [36.9]	147%
Linguistic problems (lexis/terminology, idiomaticity, grammar, style/register, pragmatic problems, language mixing)			
	170 [21.3]	212 [26.5]	125%
Paralinguistic problems (articulation, hesitation, repetition, false start, self-repair)			
	577 [71.1]	704 [88.0]	122%
Coordination problems (turn-taking)			
	34 [4.3]	110 [13.8]	324%

As a first point to notice, the quantitative analysis of the data reveals that the occurrence of problems was by no means confined to RI. Apart from the questions this raises with regard to interpreting standards, the overall quantitative trend across the two modalities confirms the necessity of a comparative investigation like this – i.e. using the interpreters' performance in traditional interpreting as a 'benchmark' for RI.

The absolute figures show a tendency for all categories of problems to be magnified in RI. Moreover, each of the eight participating interpreters encountered more problems in RI than in traditional interpreting. The differences between FTF and RI were analysed for the four main categories listed above in Table 2. Results of the paired *t*-test show that the mean scores for problems in all four categories are significantly higher in RI at the .05 level of significance: this can be seen for message content (FTF: $M = 25.1$, $SD = 9.30$; RI: $M = 36.9$, $SD = 10.1$; $t(7) = -3.21$, $p = .007$), linguistic problems (FTF: $M = 21.2$, $SD = 10.5$; RI: $M = 26.5$, $SD = 8.98$; $t(7) = -2.32$, $p = .027$), paralinguistic features (FTF: $M = 72.1$, $SD = 16.2$; RI: $M = 88.0$, $SD = 31.7$; $t(7) = -2.40$, $p = .024$), and talk coordination problems (FT: $M = 4.25$, $SD = 3.01$; RI: $M = 13.7$, $SD = 12.4$; $t(7) = -2.06$; $p = .039$). The Wilcoxon signed-rank test also indicates that the number of problems in RI was significantly higher than in FTF for all four categories: message content ($Z = -2.37$, $p < .05$), linguistic problems ($Z = -1.86$, $p < .05$), paralinguistic features ($Z = -2.52$, $p < .05$), and problems with the coordination of the talk ($Z = -2.31$, $p < .05$). These results also mean that, although the number of problems is relatively high

in the traditional interpreting subcorpus (the benchmark corpus), it is still significantly higher in the RI subcorpus.

Whilst the differences within the individual content-related categories (inaccuracies, omissions, unnecessary additions and coherence problems) listed in Table 2 are not all significant at the conventional .05 level, a subsequent analysis of these categories revealed a range of interesting differences in the two data sets. To begin with, in the category of inaccuracies the difference between FTF ($M = 11.12$, $SD = 4.64$) and RI ($M = 13.75$, $SD = 5.09$) is significant according to the t -test, with $t(7) = 1.95$ and $p = .046$. The Wilcoxon signed-rank test indicates the same level of significance ($Z = -1.86$, $p < .05$). An in-depth analysis of all the various types of inaccuracy resulted in the breakdown shown in Table 3.⁸

Table 3. Number and distribution of different types of inaccuracies (figures in square brackets: average per interview)

Type of problem	FTF	RI	RI / FTF FTF=100%
Distortions	19 [2.4]	38 [4.8]	200%
Other (minor) inaccuracies	58 [7.3]	55 [6.9]	95%
Inaccurate names and numbers	12 [1.5]	17 [2.1]	142%
Total	89 [11.1]	110 [13.8]	124%

Distortions, the most problematic type of inaccuracy identified in the data, were twice as frequent in RI. The difference is significant at the level of $p \leq .1$, according to both the paired t -test (FTF: $M = 2.37$, $SD = 2.45$; RI: $M = 4.75$, $SD = 2.71$; $t(7) = -1.60$, $p = .077$) and the Wilcoxon signed-rank test ($Z = -1.47$, $p < .1$). The total of 38 distortions in the RI subcorpus means that the interviews using RI, which had an average duration of 29 minutes, each contained more or less five distortions on average. A qualitative analysis of the distortions, including a discussion of their possible consequences, will be provided in section 4.2.

For omissions, the paired t -test shows that the scores for FTF ($M = 8.50$; $SD = 6.32$) are significantly lower than those for RI ($M = 13.5$, $SD = 9.32$), with $t(7) = -2.23$ and $p = .031$. In the case of coherence problems, the difference between FTF ($M = 4.25$, $SD = 2.66$) and RI ($M = 6.00$, $SD = 3.29$) fails to reach significance, with $t(7) = -1.20$ and $p = .135$. These results are corroborated by the results of the Wilcoxon signed-rank test (omissions: $Z = -1.82$, $p < .05$; coherence: $Z = -0.93$, $p > .1$). However, both omissions and coherence problems tend to be more severe in RI, meaning that they could potentially have more serious consequences for the impression the police officer forms of the detainee.

The much higher frequency of (unnecessary) additions in RI is mostly related to explanations that some interpreters added regarding their appearance via video link, a result which highlights the need for procedural guidance. The difference between FTF and RI is significant at the level of .1 according to the t -test (FTF: $M = 1.25$, $SD = 1.98$; RI: $M = 3.62$, $SD = 4.95$; $t(7) = -1.64$, $p = .073$), and at the level of .05 according to the Wilcoxon signed-rank test ($Z = -2.02$, $p < .05$).

In the category of linguistic problems, the most frequent are lexical/terminological items. As explained in section 3, such problems raise the question of whether they occur

because the interpreter did not know the correct word/term, or whether s/he was unable to activate the appropriate target language item in the given situation. Whilst it is often difficult to establish this with certainty, the RI data set contains some evidence of problems with lexical activation. These will be presented in section 4.3, as a further example of the insights gained from the qualitative analysis.

With regard to paralinguistic problems, the most interesting point is their distribution across the interviews. Given Mead's (2002) observation that paralinguistic problems are indicators of other problems, and Moser-Mercer's (2003) finding that the interpreters' performance in RI declined faster over time, their distribution was analysed separately and will be presented in section 4.4.

Turn-taking problems are the category showing the greatest difference between the two methods of interpreting. One of the crucial issues in this category is the correlation between turn-taking and other problems. For example, turn-taking problems were identified as being a frequent source of omissions, especially in RI, highlighting the potentially critical consequences of problems with the coordination of talk. These will be further analysed in section 4.5.

4.2 *Qualitative analysis: Distortions and their consequences*

As shown above, distortions were much more frequent in RI than in traditional interpreting. Further breakdown and quantification is difficult, because of their often complex nature. As a tendency, however, by far the largest group of distortions are conceptual distortions of what was said, involving confusion of facts and distortions of the speaker's intention.

Examples 1 to 3 are characteristic instances and illustrate potential consequences. They are taken from interview A (the assault case). A taxi driver was arrested because he had allegedly hit his boss, Miss Jones. She had observed a woman getting out of his taxi in front of a doctor's surgery and, after finding out that this journey had remained unaccounted for, she had accused him (in front of other taxi driver colleagues) of using his taxi for doing private jobs. Example 1 shows the detainee's account of events after he was seen at the surgery by Miss Jones. This example is taken from the move 'suspect's version' and the sub-move 'what happened 02'.

Example 1 A_SuspectVersion_WhatHappened_02_RI_intp05

Time: 0:08:02.1

1. Det: Quand on est arrivé, euh, elle m'a vue là-bas, et, euh, quand elle est revenue au bureau, **elle a dit** que je faisais du travail au privé.
When we arrived, uh, she saw me there and, uh, when she got back to the office, she said that I was doing private work.
2. Intp: When we arrived, uh, she saw me there and, um, **she told me** I was doing some private work.

Out of context, the difference between *elle a dit* ('she said') and *she told me* may be minor. Yet, in this example, the detainee wants to establish that one of the reasons for the assault was Miss Jones' confronting him publicly with the accusation of doing private work. By omitting the segment *quand elle est revenue au bureau* ('when she got back to the office') and interpreting *elle a dit* as *she told me*, the interpreter seems to

lose the main thrust of the detainee's claim: since the interpretation contains no indication to the contrary, it suggests the 'default' explanation that Miss Jones and the detainee simply exchanged words in the street and without witnesses. The instance was therefore classified as a distortion.

Example 2 presents the driver's (detainee's) account of Miss Jones's reaction after he had explained to Miss Jones that the woman he had taken to the surgery was his wife, i.e. that the journey in question was not a job.

Example 2 A_SuspectVersion_WhatHappened_05_RI_intp01

Time: 0:08:46.5

1. Det: Alors, elle a dit que **tout-**, elle m'a demandé '**toute personne** qui quitte ta voiture, est-ce que c'est ta femme?'
So, she (=Miss Jones) said that all-, she asked me, 'every person who gets out of your car, is that your wife?'
2. Intp: So she asked me, '**that person** who, who left the car, is it your wife?'

The rendition of *toute personne* ('every person') as *that person* distorts the main point: Miss Jones's offensive reaction becomes a far less charged request for confirmation of the passenger's identity, blunting the insinuation in the source text that the driver's explanation is a lie.

In the extract shown in Example 3, which occurs shortly afterwards, the detainee gives further details about the verbal exchange between him and Miss Jones prior to the assault.

Example 3 A_POQuestions_Details_02_RI_intp01

Time: 0:14:40.6

1. Det: **Quand j'ai dit, 'si tu m'insultes, alors, je-, il y aura des problèmes,'** elle a, elle a demandé 'quel genre du problème?' et elle m'a attrapé...
When I said, 'if you insult me, well, I- there will be trouble', she, she asked, 'what sort of trouble?' and she grabbed me.
2. Intp: **So as I said** – (to Det) stop (*hold on*) – **as I-, as I already said, uh, 'if you insult me, there will be problem', and then** she asked 'what sort of problems?' (to Det) A vous, Monsieur. (*Over to you, Sir.*)

The interpreter does not seem to recognise the reported speech in the first part of the detainee's utterance and also misses the temporal relationship (*quand j'ai dit*/'when I said'... *elle a demandé*/'she asked'...). Instead, she links the utterance to something said earlier by the detainee (*as I already said*). As a result, the rendition becomes illogical.

By altering the contextual meaning of *elle a dit* in Example 1, the meaning of Miss Jones' utterance in Example 2, and the reported speech and temporal sequence of events in Example 3, the interpreters fail to do justice to the detainee's account of the events leading up to his assault of Miss Jones – especially his attempts to show that he felt offended by her utterances. The detainee's illocutionary intentions seem to go unnoticed, and his overall strategy is undermined to some extent.

Other renditions misrepresented the police officer's intentions, at times with multiple effects. Early in interview A, the police officer tried to encourage the detainee to provide information. However, one interpreter rendered the officer's request *I want you*

to confirm what happened, which in effect offered the floor to the detainee, as *Je voudrais vous en parler* ('I would like to talk to you about it'). Following this rendition, the detainee would be unlikely to take the floor and would more probably expect the officer to continue. As explained in section 3.1, such instances did not necessarily have any consequences, since the role players were each aware of what the other was supposed to say and often quickly reverted to the script. However, in a real interview, the police officer might interpret the absence of any response from the detainee as an 'attributable silence' (Sacks et al. 1974), i.e. a silence which is created by someone's failure to produce a reply after having been assigned the floor, and might construe this as a lack of cooperation.

Another type of problem, leading to distortions only in our RI subcorpus, was mishearing. Example 4 shows an instance which is caused by the detainee's unclear articulation and his use of non-standard grammar. This exchange is the continuation of Example 2.

Example 4 A_SuspectVersion_WhatHappened_05_RI_intp01

Time: 0:08:46.5

1. Det: Alors, elle a dit que tout-, elle m'a demandé `toute personne qui quitte ta voiture, est-ce que c'est ta femme?'
2. Intp: So she asked me, 'that person who, who left the car, is it your wife?'
3. Det: Alors, on s'est mis à **disputer**. [*sic*]
4. Intp: Then we started to- (to Det) **disputer ou discuter?**
5. Det: **Disputer**.
6. Intp: **Discuter**. Then we started **talking**.

Turn (3) is not clear for the interpreter, who has possibly been led by 'top-down' processing to expect one of two verb forms: either *discuter* (= 'discuss', 'talk') or the reflexive *se disputer* (= 'argue'). The interpreter's clarification question in (4) is therefore not surprising. What is noteworthy is the ultimate failure to resolve the problem. It goes to show that acoustic problems, which have been highlighted in prior research into RI, may be exacerbated in legal communication, where it is not uncommon for speakers to use non-standard language or speak unclearly.

In her analysis of compensation strategies in videoconference-based interpreting, Braun (2004, 2007) found evidence showing that interpreters invest considerable effort in solving listening comprehension problems, e.g. by using contextual clues, and that they monitor their comprehension and their output (with regard to features like plausibility) by activating additional resources where possible (see also Kalina 1998). In the above example, though the briefing provided a rough outline of what had led to the detainee's arrest, there does not seem to have been enough context for the interpreter to infer that the exchange between the taxi driver and Miss Jones must have been an argument rather than a discussion. What also emerges here (and from other examples presented above) is that no plausibility monitoring seems to have taken place in RI, with the result that that distortions and illogical renditions went unnoticed. This suggests that the interpreters worked very close to the limit of their mental capacities, making it very difficult for them to activate knowledge-based resources beyond the immediate context – for example, the knowledge that an assault is more likely to be preceded by an argument than by a discussion.

The inability to tap into knowledge of this sort may have been compounded by the very short sequences in which the detainee's account was often interpreted, possibly contributing to the interpreter's difficulty in establishing a sense of coherence. Specifically in Example 3, the interpreter is also preoccupied with coordinating the talk between the detainee and herself. The effects of the greater difficulty in coordinating talk in videoconferencing, as evidenced in the significantly higher number of turn-taking problems in RI, will be further analysed in section 4.5.

Cumulatively, the distortions identified in the corpus may have conditioned the primary interlocutors' mutual perceptions of each other and thus have influenced the course of the interview. Given the average of 4.8 distortions per interview in RI (as opposed to 2.4 in FTF: see Table 3), as well as the higher number of omissions and many other problems in RI (see Table 2), the picture that emerges is one of a less faithful rendition in RI: possibly caused by cognitive overload, this trend has potential consequences for the outcome of the interview. Further evidence of cognitive processing difficulties can be found in lexical problems, which will be analysed in the next section.

4.3 Qualitative analysis: Insights from lexical problems

Problems with lexical activation can be observed in the following series of examples from interview B (fraud). In the case underlying this interview, the detainee, a student, got involved with two men who promised her that she could earn a lot of money. They said they would provide her with false passports and then ask her to obtain false student ID cards, open student bank accounts under those false identities and acquire the overdraft authorised by the bank. Example 5 shows how one of the interpreters rendered the three occurrences of the key term *découvert* ('overdraft').

Example 5 B_RI_intp02

- a) 1. Det: Euh, ils m'ont dit d'y aller, de dire que j'étais une étudiante, et...
Uh, they (=the two men) told me to go there (=to the bank), to say that I was a student and...
2. Intp: They told, they told me to go and to say that I was a student.
3. Det: Et la banque allait me donner un compte avec un découvert de mille pounds que je pouvais prendre.
And the bank would give me an account with an overdraft of one thousand pounds that I could take.
4. Intp: And that the bank would give me an account with, **uh, a thousand pounds, uh, credit**, which I could use.
- b) 1. Det: Et, euh, j'ai retiré tout l'argent des overdrafts que la banque m'a-, des découverts que la banque m'a donnés.
And, uh, I withdrew all the money from the overdrafts [EN] that the bank- the overdrafts that the bank had given to me.
2. Intp: And I withdrew **all the, uh, overdraft** that, uh, the bank had authorised me to take, to have.
- c) 1. Det: Donc, après, euh, après avoir-, après l'ouverture de tous ces comptes, euh, on a retiré tous les découverts de mille pounds.
Well, after, uh, after having-, after opening all these accounts, uh, we withdrew all the overdrafts of one thousand pounds.
2. Intp: And uh, after, uh, having opened all these accounts, we, uh, withdrew, **all the, uh, thousand pounds overdraft**.

When the term occurs for the first time (in a3), the interpreter seems to have difficulty finding the correct equivalent: this difficulty is indicated not only by the incorrect rendition (*credit*), but also by the accompanying hesitation. In the second instance, although the detainee has used the English term and has thus offered a ready-made ‘prompt’ for the interpretation of this turn, the interpreter still hesitates: this is probably because she is trying to activate and ‘approve’ the term in her own mind. It is not until the term occurs for the third time that the lexical activation is successful, although the hesitations suggest that the interpreter is still struggling with the term. Interpreter 8 has similar activation problems, as seen in the following example.

Example 6 B_RI_intp08

- a)
 - 1. Det: ... la banque me donnera un découvert de mille livres ...
 - 2. Intp: ... the bank was going to give me, **uh, a loan, up to a thousand pounds...**
- b)
 - 1. Det: Puis je leur ai remis tout l'argent du découvert ...
 - 2. Intp: Then I, uh, gave to them **all the money, uh, overdraft money...**
- c)
 - 1. Det: ... ces mille livres de découvert...
 - 2. Intp: ... **the amount of overdraft, which was a thousand pounds...**

As in Example 5, the activation process is ‘visible’ here through the hesitations and self-corrections in a2 and b2, whilst the subsequent delivery in c2 is smoother. Of the other two interpreters using RI in this interview, one rendered all three instances correctly, albeit with some hesitation, whilst the other rendered them all incorrectly (making it impossible to say whether or not she knew the correct term). By contrast, the four interpreters who used traditional interpreting in this interview rendered all instances correctly and with little or no hesitation.

Such examples provide further evidence of the high cognitive load of the interpreter. The differences between the two data sets with regard to lexical activation problems, although difficult to quantify exactly, suggest that the load is higher in RI. This is corroborated by another aspect of the data analysis, the distribution of problems on a timeline through the interview and the differences between FTF and RI in this respect, which will be looked at in the next section.

4.4 *Distribution of problems on a timeline*

Following Moser-Mercer’s (2003) observation of a faster decline of quality in RI, it was thought that the distribution of problems on a timeline would offer interesting information on interpreting quality in the two subcorpora. In addition, one objective of the study was to find out how the problems were distributed across different genre moves as explained in section 3.2. Interpreting problems in each genre move were therefore counted separately and analysed by genre move (and hence, indirectly, on a timeline through the interview), as shown in Figure 3.

Figure 3. Interpreting problems in interviews A and B by genre move in traditional face-to-face interpreting and remote interpreting

What can be seen at first glance is an increase in interpreting problems towards the middle of the interviews. However, since the genre moves at the beginning and end (introduction, caution, preliminaries and conclusion) were much shorter than the fourth move ('suspect's version') and fifth move ('PO's detailed questions'), this is not surprising. The interesting point is that at the transition from the fourth to the fifth move (highlighted in Figure 3), which occurs approximately two thirds into the interviews, the patterns in the two sets of data begin to diverge. The greatest differences occur in relation to the categories of paralinguistic, coherence and linguistic problems, i.e. categories of problem that can be associated with a lack of focus. These differences could thus be indicative of a more rapid increase in fatigue during RI, as was found by Moser-Mercer (2003) for remote simultaneous interpreting in a conference setting. Feedback from the interpreters and the responses to our survey among legal interpreters (see Braun & Taylor 2012b) corroborate this assumption.

What this finding suggests is that performance problems may arise in a real-life situation, unless the communication is of very short duration. In this respect, it is important to bear in mind the differences in length between the two sets of interviews: those using traditional interpreting had an average duration of 24 minutes, whilst the interviews using RI took 5 minutes (19%) longer on average.

The points raised in this section and the previous section are particularly relevant for police interviews, which often leave little or no time for preparation whilst potentially drawing on unpredictable topics. The increasing demand for interpreting services 'at the push of a button' compounds the interpreter's difficulties here. Such a scenario requires optimal working conditions, allowing the interpreter to reserve as much mental capacity for knowledge activation as possible. As indicated by our data, however, RI in the legal context may be cognitively more demanding and more fatiguing than its traditional counterpart, preventing this optimal use of additional knowledge.

At the same time, the quantitative analysis of the two data sets (summarised in Table 2 and Figure 3) shows that the differences between traditional and remote interpreting in the various problem categories are not entirely uniform, as one might expect if fatigue and cognitive overload were the sole or main reasons for the differences. It is possible that there are other reasons contributing to the differences. Section 4.5 will analyse the correlations between two of the categories, turn-taking and omissions, to illustrate a possible further source of differences between FTF and RI.

4.5 Turn-taking problems and their consequences

One relevant observation in relation to turn-taking is that problems in this area had a tendency to co-occur with other types of problem. As illustrated in Example 2, the interpreters' explicit efforts to coordinate the communication in some instances may have been responsible for some of their problems in ensuring accuracy.

A strong correlation was found between turn-taking problems and omissions, more so in RI than in traditional interpreting. Thus, as shown in Table 4, only three of the 34 turn-taking problems identified in traditional interpreting (i.e. 9%) entailed an omission in the target text; according to a conservative count, 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 led to a loss of information.

Table 4. Frequency of omissions in relation to the frequency of turn-taking problems

	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%

The most common type of turn-taking problem was overlapping speech between the interpreter and one of the primary interlocutors; this was also the type underlying all omissions associated with turn-taking problems. Example 7, taken from interview B (fraud), provides a good illustration of this (with overlapping speech segments indicated in square brackets).

Example 7 B_SuspectVersion_WhatHappened_03_RI_intp04

Time: 0:09:00.3

1. Det: Et je travaillais à H et M l'année passée, à [mi-temps.]
And I worked at H&M last year, part-time.
2. Intp: [Last year], I, I worked with H and M.

The interpreter uses a common interpreting strategy here. She begins to interpret while the detainee is about to complete her utterance. In traditional settings, this technique saves time and is also an efficient way for the interpreter to gain the floor without having to indicate explicitly that she wants the speaker to stop. In a conversation analysis framework, this would be described as a non-competitive way of gaining the floor (Sacks *et al.* 1974). In the sessions using RI, however, this did not work

effectively, because it sometimes prevented the interpreter either from clearly understanding the overlapped part of the utterance or, worse, from even noticing that something else had been said. This is the case in the example above, where the information that the detainee worked part-time was lost.

The context of the omission helps to highlight its potential consequences. In the case of the alleged fraud, the financial circumstances of the detainee (working full-time *vs.* part-time) may be especially important. It may, of course, be argued that the police officer would probably have asked about this; but, at the very least, the interpreter's omission slightly misrepresents the detainee's intention (stated earlier in the interview) to be completely open and honest about everything. This is the case in the final example, given below.

Example 8 B_POquestions_Details_05_RI_intp04

Time: 0:21:15.8

1. PO: So, 5 Cherry Close is your parents' address?
2. Intp: Donc, 5 Cherry Close, c'est l'adresse de vos parents?
So, 5 Cherry Close, is this the address of your parents?
3. Det: Oui, c'est l'adresse de mes parents. [**C'est là où tout ça est arrivé.**]
Yes, this is the address of my parents. This is where all this happened.
4. Intp: [Yes, my parents'] address.

The omission of the detainee's explanation *c'est là où tout ça est arrivé* ('*this is where all this happened*') once again thwarts her effort to be open and, at this particular point, to provide some clarification for confusion over different addresses.

The interpreters may not always have been fully aware of the loss of information caused by overlapping speech segments, but their feedback makes it clear that they did realise the disruption which these overlaps created in RI. As Wadensjö (1998) has argued, the way in which the interpreter controls the floor can be seen as more or less cooperative. The question that then arises is why the interpreters used a strategy they knew could be perceived as uncooperative. An analysis of non-verbal behaviour reveals that common non-verbal strategies used by interpreters to gain the floor, especially hand-raising, often failed, either because the interpreter's hand was offscreen (in the case of one interpreter who chose not to see her own image) or because the primary interlocutors did not look towards the screen at the relevant moment. In FTF, peripheral vision would allow the primary interlocutors to notice hand-raising even without looking directly at the interpreter; this is less likely in a videoconference, where visual information is presented two-dimensionally. As a result, there are many instances in the RI subcorpus where the only way of stopping a speaker was to intervene verbally.

This final point highlights the close link between the viability of RI and the design of the videoconferencing solution (in our case, the position of the interpreter's screen in relation to the primary interlocutors). Should the interpreting quality in RI be deemed robust enough in principle for the purposes of legal communication, the next step must therefore be to optimise the design of videoconference solutions used for RI.

5 Concluding remarks

The main aim of the study reported here was to analyse and assess the quality of remote interpreting in police interview situations. A group of legal interpreters, based in the UK and working between French and English, performed two tests in role-play simulations, one in traditional interpreting and one in RI. The quantitative analysis reveals a significantly higher number of problems for RI in all major categories, i.e. message content, linguistic items, paralinguistic features and coordination of talk, and a faster decline of performance in RI over time. Turn-taking problems (overlapping speech) and omissions (loss of information) tend here to co-occur more frequently in RI.

The qualitative analysis of the data suggests that cognitive processing problems are more prominent in RI, potentially creating greater difficulties for the interpreter in grasping the details of the case. This, in turn, may give the interpreter less chance to identify misrepresentations of speakers' intentions, illogical renditions and mishearings, and/or to apply compensatory or remedial strategies. The interpreters who participated in our tests were often preoccupied with turn-taking problems and sometimes 'trapped' by the tradition of interpreting in extremely short chunks. As a consequence, they were probably at times left without sufficient mental capacities to grasp the full meaning of what was said, gain a sufficient sense of coherence and continuity, and monitor the plausibility of their renditions. As was reported in section 1, prior research has highlighted the possibility that the use of videoconferencing in legal proceedings reduces the meaningfulness of the proceedings (Harvard Law School 2009). The findings reported here suggest that this may be even more likely when proceedings combine videoconferencing and interpreting.

At the same time, Braun (2004, 2007) has found that interpreters are, to a certain extent, able to adapt to the conditions of working in a videoconference, especially with regard to the coordination of talk. Bearing in mind that turn-taking problems in RI were often the source of other problems, ability to address any issues with turn-taking (e.g. through training, and the development of alternative turn-taking strategies) may go some way to mitigating videoconference-induced communication problems.

To assess the findings presented in this paper, the limitations of the study have to be borne in mind. Two of the main limitations were the small size of the sample and the use of only one language pair. However, other partners in the collaborative project underlying this research conducted various comparative studies of different forms of videoconference-based interpreting, with different language pairs, and came to similar conclusions (see Braun & Taylor 2012c).

Another important point is that this study has focused on interpreting quality as such. This is only one step towards a more comprehensive assessment of the viability of videoconference-based remote interpreting in legal proceedings. The potential impact of any differences in quality between traditional and remote interpreting on other aspects of the communication, especially the overall dynamics and the outcomes of the proceedings, requires further analysis. Bearing in mind the correlations between problems, more work is also required on isolating the different factors affecting the quality of interpreting – including the design of the videoconferencing solution, the mode of interpreting used, the videoconferencing literacy of the participants, and the training they have received.

Given the specific requirements of legal interpreting, the problems identified in this study seem to put constraints on the use of videoconference-based remote interpreting in legal proceedings. At least, it seems reasonable to restrict its use to the simplest cases until further knowledge has been gained, and until training opportunities and minimum standards and guidelines are available.

Notes

1. The study reported here was conducted with financial support from the Criminal Justice Programme of the European Commission. The author wishes to thank Judith Taylor for her help with the data collection and analysis.
2. The term ‘remote interpreting’ is also used to refer to interpreting via telephone (Roziner & Shlesinger 2010). However, the present paper focuses on RI via videoconference. The term ‘videoconference-based remote interpreting’ is used to distinguish it from ‘video remote interpreting’, the term used for its counterpart in the field of sign language interpreting.
3. A description and demo video clips of this service can be found at <http://www.ninthcircuit.org/programs-services/court-interpreter/centralized-interpreting/>
4. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010L0064:EN:NOT>
5. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:075:0001:0012:en:PDF>
6. The officers were volunteers from the Metropolitan Police Service in London.
7. This layout was chosen, because it was the layout being implemented at the interpreter hubs of the Metropolitan Police Service in London at the time of the tests, i.e. it was to be used in real-life situations.
8. This analysis was conducted at a later stage, i.e. is not based on the original coding by the three raters.

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