

The effect of interpreting modes on witness credibility assessments

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Research into court interpreting has shown that interpreters can have an impact on the case in many different ways. However, the extent to which this occurs depends on several factors, including the interpreter's competence, ethics and specialized training in court interpreting, as well as working conditions. One little explored aspect is whether use of consecutive vs. simultaneous interpreting can impact jurors' perception of a witness or other interpreted party. This paper reports on the results of a large-scale experimental study, with a simulated trial run in different conditions, involving a total of 447 mock jurors. The aim was to identify any differences in the way jurors in Australian courts might assess the evidence of an accused called as a witness, in a monolingual hearing as well as when interpreted consecutively and simultaneously from Spanish to English. Overall, jurors' recollection of case facts did not differ significantly for the three conditions, though it was lower for consecutive during the afternoon. Jurors also found consecutive more distracting; on the other hand, the consecutive mode was associated with significantly more favourable perception of the accused's evidence than simultaneous interpreting or monolingual communication. Although jurors found the prosecution to be less convincing when the accused's evidence was interpreted consecutively compared to the other proceedings, the interpretation mode made no difference to the verdict.

Keywords: court interpreting, witness credibility, consecutive interpreting, simultaneous interpreting, interpreter position

1. Introduction

Bilingual trials where there is an interpreter present will always be different from monolingual ones where no such third party is required. Substantial research has demonstrated the impact of interpreters upon cases, including the way they can influence verdicts by either juries or judicial officers (Berk-Seligson 1990/2002; Hale 2004). However, the extent to which an interpreter influences the outcome of a case may differ depending on a number of factors, including the interpreter's competence, adherence to professional ethics, specialized training in court interpreting (Hale 2007), as well as the conditions under which they work (Hale & Stern 2011).

One aspect that has not yet been explored is whether the mode of interpreting, either consecutive or simultaneous, can affect the way jurors perceive a witness or other party giving evidence. In Australia, the Commonwealth Attorney General's Department (1991) declares that the role of the interpreter is to place the non-English speaker in the same position as an English speaker. Whether that goal is possible has never been empirically tested. This paper will report the results of a large-scale experimental study, based on a mock trial which aimed to discover if there were significant differences in the way individuals eligible for jury duty in Australian courts assessed witnesses with and without interpreters, in the consecutive and simultaneous modes.

1.1 Court interpreting practices

Both the consecutive and simultaneous modes of interpreting are generally seen as having a place in contemporary judicial processes. To interpret witness evidence interpreters commonly interpret in a two-directional (short) consecutive mode, either sitting next to the witness in the witness box or remaining in close proximity to it. When interpreting for the defendant in order to make him or her linguistically present at all times during their case, for example while others are giving evidence or lawyers are debating issues with the bench, interpreters use the whispered simultaneous mode (*chuchotage*), usually without equipment. To do so they sit close to the defendant in the dock, sometimes for many hours or even days of trial, and in many cases without any relief, as court interpreters tend to work alone.

Domestic courts in most countries, however, were not designed to conduct interpreter-mediated hearings; as a result, interpreters are typically seen as outsiders who visit the court rather than as officers of the court (Lee 2009), and it has been argued that most lawyers and judiciary "have no proper understanding of the interpreting process and do not really know how to work efficiently with interpreters" (Hertog 2002: 150). When in court, in most jurisdictions, interpreters do not

usually have a dedicated place or even a desk on which to place their notes while interpreting consecutively, or any equipment when interpreting simultaneously. This peripheral presence (as a “necessary evil”) may have consequences for their performance and their effect on the judicial process. In many cases interpreters find it difficult to hear what is being said and are required to stand or sit in uncomfortable positions when they interpret for the witness, complaining of poor acoustics, unclear speech of judges and counsel, voice strain and background noise (Hale 2011; Hale & Napier 2016; Stern 2012). Colin and Morris (1996: 90) conclude that, during lengthy proceedings and legal arguments, only summary interpretation can be realistically provided to the defendant in the whispered simultaneous mode. Interpreters have reported dissatisfaction with poor working conditions, low status, lack of trust and a limited understanding of their role and their needs by other court participants (Hale 2011; Ozolins 2004; Stern 2012; Stern, Ozolins & Hale 2015). Only in some courts (e.g. USA Federal, Singapore Supreme, Japan lay-judge courts) are interpreters regularly provided with a workstation and/or portable equipment that allow them to work comfortably away from the defendant.

Simultaneous interpreting in booths has been occasionally used by some domestic courts when running high-profile cases of international resonance. The choice of this interpreting mode has been triggered by interest from the international community and the media, as well as with a view to saving time (Morris 1998: 5). However, experience has shown that it is not sufficient to simply install interpreting booths in court and employ interpreters who have not been trained in court interpreting to do the work, in a setting normally characterised by inadequate working conditions and poor understanding from all the court participants on how to work with interpreters. Lotriet reports that during the Amnesty Committee hearings of the South African Truth and Reconciliation Commission, interpreters trained in the simultaneous mode during a short course struggled to achieve the required register and accuracy when dealing with legalese, statements and decisions read out in court, as well as the fast pace of cross-examination: lawyers were dissatisfied with their interpretation, expecting an almost word-for-word translation (2002: 97–98).

The Israeli Demjanjuk trial (1987), the Scottish/Netherlands Lockerbie trial (2000–1) and the Spanish Madrid train bombing trial (2007) all suffered from a lack of “across-the-board team work” (Morris 2001: 13 in Martin & Taibi 2012: 160), with little understanding from the court participants and court administration either of what interpreting involves or of interpreters’ professional requirements. In all three trials, the legal professionals did not accommodate the interpreters’ working needs: they spoke quickly, often without waiting for the end of the interpretation, did not provide any preparation materials (Morris 1989a: 32–33; 1989b), and lamented their lack of control over the interpreter and the

interpreting process (Martin & Ortega Herráez 2013: 112–113). One positive outcome of the Lockerbie case was that the court was compelled to revise and improve interpreting conditions, and as a result attempted to slow down the speakers by introducing a signal button, allowed interpreters to self-correct and provided preparation materials (Gzour 2001).

In international settings, practices differ greatly from what is experienced in domestic settings. Following the precedent of the 1945–6 Nuremberg trials, international courts and tribunals have opted for the time-saving simultaneous mode in soundproof booths with interpreting equipment (Gaiba 1998). This remains the preferred model for today's multilingual international courts and tribunals (Stern 2011, 2012), despite the lack of research findings in support of adopting this mode for court interpreting. The expectations of interpreting quality in international courts and tribunals are very high, leading to adjustments in court practices so as to improve interpreters' working conditions. These include provision of soundproof booths and adequate equipment, teamwork arrangements, regular turn-taking, breaks, advance preparation and access to documents such as prior witness statements, opening and closing addresses and judges' decisions. Despite occasional challenges to interpretation accuracy, requests for quality verification and some interpreter scapegoating, mainly by the defence, there is a general satisfaction with the high quality of simultaneous interpreting, notwithstanding the pressures placed on multilingual hybrid-jurisdiction international courts by court participants and the distressing nature of evidence (Stern 2011: 332).

1.2 Research on consecutive vs simultaneous interpreting

Research on the different degrees of accuracy and appropriateness of simultaneous and consecutive interpreting in various settings is very limited, even in the field of conference interpreting with its long-standing use of both modes; and only a few individual studies have looked at this question in the context of courts and legal interpreting. This dearth of research may be related to the issue that simultaneous and consecutive interpreting play somewhat different roles in conference interpreting and in interpreting more generally. With the advent of technology and the widespread use of simultaneous equipment, simultaneous interpreting has come to dominate. Consecutive interpreting is no longer used widely in international contexts, thus obviating the problems of having a considerable hiatus in proceedings while speeches are interpreted consecutively into one or more languages (Baigorri-Jalón 2000/2014). Efficiency and time saving, the winning factors for simultaneous interpreting, must also be considered when looking at interpreting in courts (see also Mikkelsen 2010, on the choice of modes in today's UN, in Section 1.2.2).

In international conferences, the consecutive mode has come to play a more restricted role, usually being used for occasional formal situations such as delegation greetings, one-on-one interpreting between heads of delegations, dinners and banquets or other settings where formality is paramount, or where simultaneous equipment (such as booths and headphones) is inappropriate or intrusive, or in situations where very detailed wording of documents (e.g. agreements or resolutions) is closely debated.

An important starting point for the research described below is Gile's (2001) study of how 20 professional conference interpreters interpreted a recorded speech by a leading international businessman and CEO, the focus being a comparison between simultaneous and consecutive interpretation (10 interpreters for each mode). The study showed that, despite the widespread assumption in the profession that consecutive interpreting must be more accurate than simultaneous (as the consecutive interpreter can take notes and has the advantage of having heard the whole speech, or an appreciable part of it, rather than going along with an often unpredictable and difficult-to-follow speech in simultaneous mode), a panel of judges found the simultaneous interpretations closer to the spontaneous speech of the speaker, faithfully reproducing false starts, uncertainties and hesitations. By contrast, consecutive interpreters, having listened at some length before interpreting, may tend to gloss over such issues as false starts, and are less likely to indicate pauses, hesitations and uncertainties, as well as intonation and stress – all vital items in a witness's style of speech and ultimate credibility (see Berk-Seligson 1990; Hale 2004). It should be noted, however, that in Gile's (2001) experiment and in general conference interpreting practice, consecutive interpreting is undertaken on relatively long speeches. The short consecutive mode used in court, where interpreters interpret turn by turn while taking account of both content and manner, with use of notes only for details such as numbers and names, lends itself to greater accuracy.

1.2.1 *Consecutive vs simultaneous in healthcare interpreting*

Gany et al. (2007) conducted an experiment in a US hospital, recruiting the interpreters working in that hospital to interpret in one of four different modes. The interpreters received 64 hours of prior training for the first three of the four modes: remote simultaneous by telephone, remote consecutive by telephone, and face-to-face consecutive. Ad hoc face-to-face interpreting, the fourth mode, was used by a control group of interpreters from the hospital who received no training.

A panel found that the remote simultaneous encounters took markedly less time and were also significantly more accurate, with far fewer mistakes both linguistically and clinically; the other modes showed up to twelve times as many errors (sometimes crucial, even life-threatening) as the simultaneous remote mode.

While the authors acknowledged that they had no data enabling them to determine the reasons for such a discrepancy in accuracy, they posited the following explanation:

Interpreters do not need to recall large amounts of information. Furthermore, the minimal time allowed to interpret in [remote simultaneous] may also inhibit editing or advocacy by the interpreters. (Gany et al. 2007: 322)

It should be noted that the interpreting in this study was not of long speeches, but of a dialogue during medical interviews. While obviously not adversarial in nature, these situations demanded quick switching between languages and a high degree of precision, for both of which simultaneous interpreting proved better. Unfortunately, the authors do not give details of the training provided.

1.2.2 *Consecutive vs simultaneous in court settings*

Turning to the few studies of court interpreting that look at the two modes, the preference for simultaneous becomes more problematic. Two studies that contained direct comparisons between consecutive and simultaneous interpreting in courts gave a preference to consecutive as the more accurate; two other studies looked at logistics and efficiency, considerations that may support a preference for simultaneous (Berk-Seligson 1999; Russell 2003).

Berk-Seligson's (1999) study of consecutive and simultaneous interpreting in American courts looked specifically at the varying degrees of coerciveness with which attorneys ask leading questions, particularly in cross-examination. Taking four Federal and State superior court criminal proceedings, she analysed the leading questions that attorneys asked, and the accuracy with which they were conveyed.

The interpreters coped very well with questions of the *wh*-type, but leading questions intended to elicit particular answers posed considerable difficulties for both consecutive and simultaneous interpreting (Berk-Seligson 1999). These were statements with tag questions (e.g. "The car was red, wasn't it?"), or negative yes/no questions (e.g. "Wasn't the car red?"). Not all such questions are easily translated into other languages¹ and interpreters will often have to decide what forms in the target language will have a similar effect to the English tag. A further source of difficulty is that negative questions can become very confusing, making them difficult to understand and to interpret (e.g. "It wouldn't be true, would it, that you entered the house at that time?").

In addition, Berk-Seligson (1999) found that many interpreters did not convey the coercive impact of the questions, often softening it but in a few instances actually strengthening it. Overall, in her quantitative analysis she found that around

1. Berk-Seligson used an English-Spanish corpus exclusively, as did Hale (2001).

half of all the 945 coercive questions analysed were interpreted inaccurately; for consecutive the general level of accuracy was 70.6%, as against 33.0% for simultaneous. Interestingly, the author found that accuracy was higher for trials than for other proceedings (e.g. depositions, preliminary hearings). For trials, the consecutive interpreters conveyed leading questions accurately some 82% of the time, as opposed to 55% of the time in other proceedings. With simultaneous interpreting, however, accuracy levels were reversed: simultaneously interpreted leading questions were accurately rendered 35% of the time in trials, but this rose to 50% for other proceedings. Berk-Seligson speculates that this greater accuracy for consecutive in trials may have been due to the greater degree of prominence the interpreter has in this context, with all eyes upon them and accuracy at a premium. There was no suggested explanation for the greater accuracy of simultaneous interpreting in proceedings other than trials.

Very similar overall results are reported by Russell (2003), also in North America, in the case of American Sign Language (ASL) interpreting. This is somewhat surprising, as simultaneous interpreting is the default method employed by ASL interpreters in most court settings. While Berk-Seligson's work was based on actual recorded proceedings, Russell (2003) designed an experimental study, using experienced and mostly certified interpreters working in pairs, and native ASL signers. Interpreting in four video-recorded mock trials was examined in three different discourse events – the giving of direct evidence (“evidence-in-chief”), cross-examination, and expert witness testimony. Russell (2003) found that across the four trials and three discourse events consecutive interpreting was consistently more accurate, with fewer errors committed by the interpreters. For example, in cross-examination in the two trials held in consecutive mode, interpreters made one error out of 157 (0.6%) total utterances, but in the two trials with simultaneous interpreting the error counts were 15 out of 188 (8%) utterances and 17 out of 175 (9.7%) utterances. Errors were made in both directions, slightly more so when going into ASL than into English.

It was also noted that there were fewer errors during the cross-examination than in the direct evidence or expert witness discourse events, a result that Russell (2003) argued was not surprising, as the interpreters had already interpreted the direct evidence, and thus would have been familiar with the basic narrative and many details of it. This itself is an interesting observation, as cross-examination is sometimes regarded as the most difficult form of court discourse to interpret, but in fact much of the groundwork for understanding what can come up in cross-examination has already been laid down in the direct evidence. For the purpose of her study, Berk-Seligson's concern for accuracy was limited in scope to pragmatic force (1999: 39). Russell (2003), however, does not tell us if coerciveness or style

were examined in her study. The criteria used to assess accuracy are an important factor to consider when making any such comparisons.

All participants in Russell's mock trial were surprised by the results, as simultaneous interpreting was what they were used to (interpreters and deaf witnesses) or was seen as more efficient (judges and lawyers).

Questions of efficiency, communicative efficacy and logistics in the courtroom are also salient for a number of other studies on court interpreting. Jacobsen (2012) looked at the consecutive and simultaneous modes in Danish courtrooms, noting no clear or coherent trend in terms of practical preference for one or the other. The Danish court system officially recommends that, in conveying questions to witnesses and answers back to lawyers, the short consecutive mode be employed. At other times, a non-Danish-speaking accused is kept informed of court proceedings by an interpreter who sits next to him or her and uses chuchotage. In observing trials, Jacobsen (2012) nevertheless found that many interpreters used chuchotage for interpreting questions directly to the non-Danish-speaking accused, and also for interpreting their answers back to the judge or lawyers in a semi-simultaneous mode. More than half of the interpreters surveyed said that they use both the simultaneous and consecutive modes at various times for conveying questions, while some 20% reported never using the consecutive mode. Moreover, just under half reported using only the consecutive mode for interpreting answers, while around 40% used a mix of simultaneous and consecutive for this purpose. In addition, over two thirds of the interpreters declared they themselves determined the mode of interpreting to be used, with a few stating that this is worked out cooperatively with court personnel, and only a few reporting ever being directed to interpret in a particular mode. It should be noted that simultaneous interpreting is always done without equipment, so that it is audible only to the person immediately addressed. It is also important to note that, for the very same reason, the interpreter must be placed very close to the witness or defendant and be seen by all present in the court.

Jacobsen (2012) commented on a number of logistical, efficiency-related and contextual issues that bear on what she regards as unusual behaviour in going against the official stipulations of how to interpret. Firstly, the low status of interpreters in the court is reflected in the estimation that some 75% of all court interpreting in Denmark is done by unauthorized interpreters, without certification for court interpreting. Given what Jacobsen (2012) reported as the bad publicity that has attended various reported interpreting cases in Denmark, many interpreters saw consecutive as taking up too much time and therefore used simultaneous. This was reinforced by the courts' general tolerance of such practice – again on the grounds of efficiency. Secondly, when asked about note-taking techniques, which would help their short consecutive interpreting, the majority

of interpreters reported having no note-taking technique or never using notes; another reason for using the simultaneous mode was to avoid overtaxing their memory. Thirdly, as almost none had any training in simultaneous interpreting, Jacobsen argued there must be serious doubts about quality, as demonstrated in her extracts from an actual trial (2012: 220–222). Nevertheless, acknowledging the pressures on interpreters to be efficient, Jacobsen considered that courts are remiss in not looking at the possibility of using simultaneous equipment to make all evidence audible.

Again trying to weigh up logistical and accuracy issues, Mikkelson pointed out that “the most important consideration is the conservation of meaning and the protection of the record” (2010: 4) and confirmed that, as in Denmark, the US code for federal court proceedings mandates consecutive interpreting for witness testimony unless otherwise authorised by the court in the interests of justice. Mikkelson (2010), however, pointed to the increasing use of technology in many aspects of court administration, observing that the use of simultaneous interpreting equipment has long been advocated by professional interpreters. The advantages cited include the time factor, the immediacy of simultaneous in conveying a witness’s response, and the likely reduction of requests for repetition, as longer passages do not need to be memorised.

Mikkelson (2010) also mentioned one method which combines the two modes, a method so far used sparsely but which is gaining increasing attention: the use of a recording device (currently either an MP3 player or a “digital pen”), linked to an interpreter’s earphone, which records a question or answer. This allows a turn-by-turn consecutive interpretation, based on the recording: the interpreter listens to the recording while interpreting, thus obtaining a second hearing of the utterance and enhancing precision. This method has been well described by Lombardi (2003), Camayd-Freixas (2005), and Hamidi and Pöchhacker (2007), who reported on an experimental research project showing enhanced accuracy with this method. Orlando’s study (2014) comparing the performance of four interpreters using the consecutive and the hybrid mode with a smart pen, also found a higher level of accuracy with the combined method. Given the exponential growth of technological solutions in all areas of communication, and greater use of technology in courts, this could be a pointer to the future resolution of the debate over consecutive or simultaneous, though it is dependent upon having interpreters who are trained and proficient in this mixed mode.

Returning to Mikkelson’s line of argument, while acknowledging the considerations that make simultaneous interpreting attractive, she closely followed Russell (2003) and reiterated that, for absolute accuracy, consecutive must be favoured for the reasons already discussed above. Even in international relations, Mikkelson (2010) reported that the consecutive mode was still used, for example,

in the United Nations Security Council, where often very detailed wording is argued over in important drafts or debates, while the General Assembly will always use the simultaneous mode.

What little research there is into the differences between consecutive and simultaneous interpreting has concentrated on the impact of mode on accuracy, producing divergent results and a number of related considerations, particularly regarding the interpreters' training and competence. No research to date, however, has looked at the impact of mode on the evaluations of a witness's or other interpreted party's credibility, as our current study does.

1.3 Witness credibility in monolingual and bilingual cases

In the adversarial system, witness testimonies form the core of a case. Oral evidence is presented by lay witnesses who answer questions in relation to what they heard or saw that may be of relevance to the case, and by expert witnesses who are consulted by the court on related issues. This means that the outcome of any case depends to no small degree on witness credibility, related not only to what is said but also to the speaker's appearance and behaviour. Indeed, early research on jury decision-making showed that jurors were inclined to attend to impressions of the speaker rather than the content (Chaiken 1980). Generally, when jurors were not motivated, the testimony was complex or they were undecided about an argument, they seemed to focus on factors other than content of testimony, namely their perceptions of the witness (see Boccaccini 2002; Cooper et al. 1996; Mondak 1990). Research on juror perception of witness credibility has shown that confidence, trustworthiness, likeability, and knowledgeability were valid factors of credibility (e.g. Brodsky et al. 2010; Ruva & Bryant 2004). These were, in turn, associated with other personal characteristics, such as attractiveness, and seen to play a role in shaping jury decisions, namely verdict. Against this background, the Witness Credibility Scale (Brodsky et al. 2010) was used in the present study to test the perceived credibility of the interpreted party (here, the accused) through different interpreting modes.

Some researchers have argued that non-verbal behaviour and non-verbal communication are also important in courtroom settings (e.g. Boccaccini 2002; Conley et al. 1978; Smith & Malandro 1985). These can include facial expressions, body movements, and patterns of non-verbal behaviour, such as fidgeting or eye movement (Boccaccini 2002). Different studies have demonstrated that these non-verbal communication cues impacted on perceived witness credibility (for a thorough review, see Boccaccini 2002). Similarly, the higher the individual's perceived attractiveness, the greater the likelihood that s/he would also be seen as honest, warm, and intelligent. Finally, witness confidence was shown to be related

to perceived witness credibility, for both lay and expert witnesses (Brodsky et al. 2009; Lindsay et al. 1989; Luus & Wells 1994).

In trials where witness testimony is interpreted in the consecutive mode, the interpreter's presence and visibility may interfere with jurors' perceptions of the witness. There is no research to show whether jurors observe the interpreter or the witness when they are giving evidence, or whether the position of the interpreter in relation to the other participants can affect the dynamics of the interaction and the way the witness is perceived. When interpreters use the consecutive mode, they stand or sit next to the witness they interpret for; in such cases jurors might transfer the verbal and non-verbal communication provided by the interpreter, as well as the interpreter's appearance and gender, to their perception of the witness.

Discourse analytical research into court interpreting, based on both authentic and experimental data, has found that the way witnesses are perceived by jurors can change when interpreters do not achieve accuracy of content and manner. Linguistic items assessed for this purpose include seemingly superfluous features, such as hesitations, fillers, hedges and mistakes (referred to as powerless features by O'Barr 1982), as well as vulgar language, pragmatic force or levels of politeness (Berk-Seligson 1990/2002; Hale 2001, 2004).

2. The study

This paper reports the results of the experimental part of a large multidisciplinary, mixed methods study.² The experiment was the main part of the study. Prior to the experiment, the research team conducted field observations in court, interviews and focus group discussions (see Stern et al. 2015), as well as a survey of practising court interpreters (see Hale & Napier 2016). The study aimed to fill the gap in knowledge of how the presence of an interpreter can affect the interpreted party's credibility when giving evidence in court. To our knowledge, it is the first large-scale study of its kind, using a mock trial in a real courtroom with jurors

2. Research project funded by the Australian Research Council Linkage Program 2011 Round 2 (LP110200394) and the following partner organisations: Australasian Institute of Judicial Administration (AIJA), Department of Attorney General and Justice (NSW), Department of Justice (Vic), PTW Architects, ONCALL Interpreters and Translators, Australian Federation of Deaf Societies/Sign Language Communications, Department of Justice and Attorney General (Qld), ICE Design Australia Pty Ltd. The project was led by Professor Sandra Hale from the University of New South Wales. The other investigators were Professor David Tait (UWS), Dr Meredith Rossner (UWS), Professor Jane Goodman-Delahunty (CSU), Associate Professor Ludmila Stern (UNSW), Associate Professor Uldis Ozolins (UWS) and Professor Jemina Napier (HWU).

randomly assigned to three different conditions: monolingual communication; consecutive interpreting, with an interpreter sitting next to the accused when he is (cross-)examined as a witness for the defence; and simultaneous interpreting from a booth, with jurors listening via headphones. The content and design of the experiment were informed by the preliminary phases of the large-scale project, which included interviews with lawyers, a focus group with court officers (Stern et al. 2015), and a nationwide survey of practising interpreters (Hale & Napier 2016).

2.1 Methods and experimental design

The experiment consisted of a simulated drug trial. The script was adapted from a real case, and it contained the following sections: judges' directions to the jury and the interpreter; opening addresses by both sides; examination-in-chief and cross-examination of a Spanish-speaking accused called as a witness; and final summations and judge's directions. The study incorporated pre-test and post-test measures. The pre-test measures were completed online, approximately one week prior to the experiment. Before observing the mock trial, the mock jurors completed a written questionnaire with basic demographic information as well as their attitudes about justice, drug offenders, migrants from different language backgrounds, and interpreters. Following the trial, the mock jurors were asked to evaluate the accused's credibility on the Witness Credibility Scale (Brodsky et al. 2010), as well as the reliability and relevance of the evidence he had given during the proceedings. Credibility of the interpreter (where used) was also investigated in the post-trial survey, focusing on whether the mock jurors perceived her as biased or neutral, as well as how they judged her performance and accuracy. They were also asked to indicate whether they would convict or acquit the accused.

A pilot mock trial was conducted two months prior to the final trial, with 33 randomly selected jury-eligible individuals who were required to watch the live acted mock trial and complete the pre-trial and post-trial questionnaires. A focus group discussion was held with the mock jurors upon completion of the pilot trial, to seek feedback on any aspect of the questionnaires or the procedures that may have needed amendment. All relevant amendments were implemented in the final mock trial and the accompanying questionnaires for the mock jurors.

2.1.1 *The characters*

The simulated trial was as realistic as possible, with professional actors trained to play the accused, interpreter, judge and counsel. Using actors minimised accidental variations between conditions. The accused was a male from Argentina, charged with having been knowingly involved in the importation of illegal drugs to Australia. An English translation of all his turns in Spanish was prepared

beforehand, maintaining accuracy of content, style and manner of delivery, by two university-trained translators with many years' experience.³ This translated script was used by the interpreter in both the interpreted conditions, for consistency of content. The actor playing the interpreter rehearsed her parts of the script well, so as to imitate the intonation, emotions and pitch of the speakers. She was also from Argentina, thus avoiding any suspicions from the jury about potential misunderstandings between the accused and the interpreter. Middle-aged with a slight foreign accent in English, she reflected the characteristics of most Spanish court interpreters in Australia. Having her wear a dark suit, with her hair up, guarded against her attracting any unnecessary attention to herself when present in the court for consecutive interpreting. The accused was male and the interpreter female, following the typical gender distribution in court cases. The study did not evaluate the effect of different languages on witness evaluations. Spanish was used here because it was the language of the authentic case on which the simulated trial was based.

The court officer was a professional court officer from the Western Sydney Trial Courts, in Parramatta, Sydney, New South Wales, where the mock trial took place. This ensured that all court protocols and procedures were followed, as in an authentic case. The only changes to protocol were in relation to the interpreter, these being based on the results of the interpreter survey about current working conditions and the resulting suggestions for improvement (Hale 2011; Hale & Napier 2016). Accordingly, the judge in the script was informed of the interpreter's role and her professional needs; and the interpreter's status, as a trained professional, was mentioned to ensure trust in her performance from the jury. Below are the excerpts from the interpreting script that record the interpreter's self-introduction, the judge's instructions to the jury, and the judge's invitation to the interpreter to seek any clarification as or when needed. The same script was used for both modes.

Excerpt 1: Introductions

1. JUDGE (*To interpreter*): Thank you, Madam Interpreter. For the record, could you please state your full name and level of interpreter accreditation?
2. INTERPRETER: Yes, Your Honour. My full name is Julia Ortega. I am accredited at the Interpreter Level by the National Accreditation Authority for Translators and Interpreters (NAATI) in English and Spanish, which is the highest level of accreditation for court

3. We acknowledge Adela Ezcurra and Anna Salotti as the translators of the script.

- interpreting. Here is my card. [*Gives card to court officer*]
3. JUDGE: Thank you, Madam Interpreter. Do you have any formal qualifications in addition to your NAATI accreditation?
4. INTERPRETER: Yes, Your Honour. I have a Bachelor of Arts in Linguistics from Argentina and a Master of Arts in Interpreting and Translation from Australia.
5. JUDGE: Thank you. Please let me know if you need anything during the course of the trial to assist you in your ability to interpret for the court.
6. [...] (*The accused is then sworn in and the interpreter interprets for him*)
7. [*The court officer ensures the interpreter and the witness have a jug of water and two glasses in the witness box*]
8. JUDGE: Members of the jury, I will now explain the order of the proceedings to you, I will introduce you to the different participants and I will instruct you on your duty. At the bar table, we have Ms Lee, who is the counsel for the Defence, and Ms Neal, who is the Prosecution counsel acting for the Crown. Ms Lee will call Mr López to give evidence as a witness for the Defence. After Mr López has given evidence in Examination-in-chief, Ms Neal will have the opportunity to cross-examine Mr López. You have already met Mr López and Ms Ortega, the interpreter.
9. [...]
10. JUDGE: Now I will explain how the interpreter will work. When Mr López gives evidence, the questions put to him as well as his responses will be interpreted by the interpreter consecutively.⁴ She will interpret faithfully what Mr López says. When others speak, the interpreter will interpret what is being said to Mr López in the simultaneous mode, by whispering in his ear what is being said.⁵ If at any time you do not understand anything or do not hear the interpreter, please raise your hand and I will attend to it.

4. This was changed to 'simultaneously' in the simultaneous condition.

5. For the simultaneous condition, the interpreter interpreted everything simultaneously from the booth. This was explained by the judge to the jury.

The interpreter is treated as an equal professional by the judge and other court participants. For example, the court officer always refills her jug of water and the two counsel ask if she has received the briefing materials for the case. Halfway through the case, the interpreter stops the proceedings to seek advice from the judge on how to deal with a translation difficulty. This excerpt appears below:

Excerpt 2: Asking for clarification

1. MR LÓPEZ: En mi país hice un curso de Maestro de Puerto, y hace 12 años que trabajo en eso.
2. INTERPRETER: [Before interpreting the answer, the interpreter puts her hand up (in the consecutive mode) and seeks permission to talk to the judge] Excuse me, Your Honour, I am speaking as the interpreter now. The witness used a term to describe his occupation which I have never heard before, which translates roughly as “port master” (maestro de puerto) in Spanish. I would like to alert the court to this, as my rendition may not be the exact equivalent. Would you like me to seek clarification or to interpret the answer using this chosen term?
3. JUDGE: Thank you, Madam Interpreter. Please interpret the answer using that term and Ms Lee may want to seek clarification as to the nature of the job he performed.
4. INTERPRETER: Thank you, Your Honour. Could Ms Lee please ask the question again so I can interpret that sequence again?

In the simultaneous interpreting condition, the interpreter is sworn in at the front of the court in the same manner as in Excerpt 1, after which the judge instructs her to take her seat in her booth and explains to the jury how she will be working. The interpreter’s question and request, in Excerpt 2, are also included in the simultaneous interpreting condition. The interpreter presses a button in the booth that communicates directly to the judge, to alert the court to her query.

The consecutive interpreting condition was approximately 1.5 hours in length, whereas the monolingual and simultaneous interpreting conditions lasted approximately one hour.

2.1.2 *The sample*

Four hundred and forty-nine jury-eligible participants were recruited, using a professional recruitment company, to participate as jurors in the simulated trial. Criteria of eligibility were Australian citizenship and a minimum age of 18 years. The juror participants were given a \$50 shopping voucher as a sign of appreciation

for their participation. They were invited to appear at one of three different time slots (9am, 11am and 2pm), on different days of the week, and were then randomly allocated to one of the three conditions upon arrival. Approximately 50 mock jurors were allocated to each of the conditions, resulting in a sample of 447. Before commencing, they were required to sign an informed consent form, in compliance with the ethical requirements of the different universities involved.⁶ After completing their tasks, the participants were debriefed about the purposes of the study.

2.2 Results

This paper reports the results of the following research questions:

1. Was there any difference between the monolingual and the two interpreted conditions, regarding jurors' concentration, understanding and recollection of the case facts?
2. Was there any difference in the jurors' perception of the accused between the three conditions?
3. Was there any difference in the conviction rate between the three conditions?

2.2.1 *Recall of case facts*

Participants were given a set of twelve multiple-choice questions to test their memory of the case facts, with a maximum possible score of 12. Two-way between-subjects ANOVA⁷ was conducted, with interpreter presence (monolingual vs consecutive vs simultaneous) and time of the day (9am vs 11am vs 1.30pm) as independent variables. Interpreter presence had no effect on jurors' memory for case facts⁸ (see Figure 1). There was, however, a main effect for time of day, and for

6. This project was approved by the UNSW, UWS and CSU Human Ethics Research Committees. The approval number is HREC11316.

7. To test for the impact of interpreter presence and time of day, data for mock jurors' recollection of case facts, concentration and perception of the accused were analysed by separate two-way between-subjects analyses of variance (ANOVA). Two-way between-subjects ANOVA allows testing for individual and combined effects of two categorical independent variables (e.g. interpreter presence and time of day) on a continuous dependent variable (e.g. recollection of case facts) simultaneously (Pallant 2010). First, main effects were tested for each independent variable separately. Then, the interaction between these variables was tested to ascertain whether the impact of one independent variable (e.g. interpreter presence) on the dependent variable (e.g. recollection of case facts) was dependent on the second dependent variable (e.g. time of day).

8. $F(2, 427) = 1.08$, $p = .376$, $\eta^2 = .00$. The F statistic, also called F ratio, tests for differences among groups by taking into account degrees of freedom for between-groups and within-groups variance (Tabachnik & Fidell 2013). Specifically, F is the ratio of explained to unexplained

its interaction with interpreter presence. Overall, jurors who heard the evidence through the interpreter showed equivalent memory for the case facts to those who heard the accused's evidence directly in English, indicating that no disadvantage is experienced in terms of case content when the interpretation is accurate. Similarly, Figure 1 shows no difference in jurors' memory of case facts according to the experimental condition in which they heard the evidence (through consecutive/simultaneous interpreting, or without an interpreter; $p > .05$).

However, significant differences were found among jurors who participated in the afternoon.⁹ Post-hoc analyses revealed that those who heard the simultaneous interpretation remembered more case facts than those who heard the consecutive interpretation. The mean score achieved by those who heard the monolingual version was very similar to those who heard it through the simultaneous interpretation. This result may indicate that more cognitive effort is required for jurors to follow consecutive interpreting – something they are perfectly capable of doing in the morning, when they are fresh, but have more difficulty doing in the afternoon, when they may be tired. On the other hand, simultaneous interpreting did not

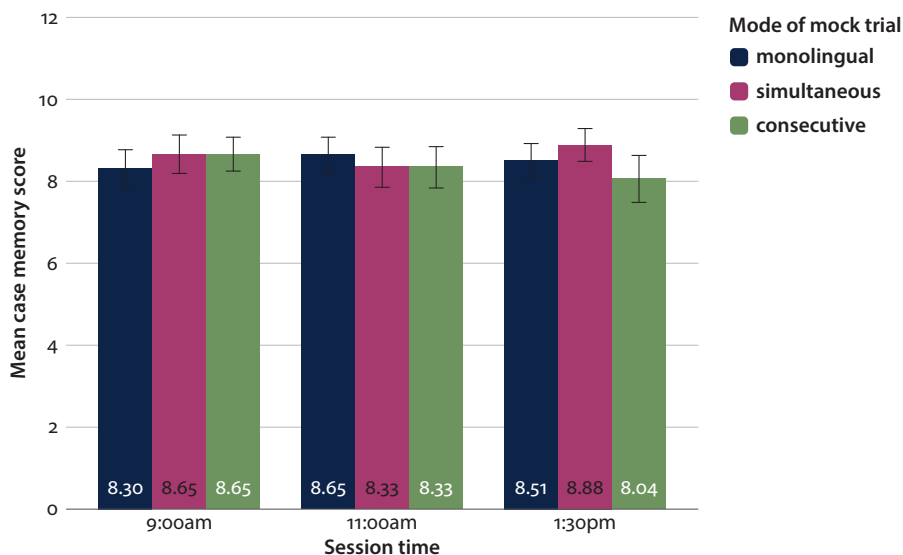


Figure 1. Case memory across times and conditions

variance by the model. When F ratio exceeds the critical value that is set at an α level of 5%, the null hypothesis is rejected, indicating that the experimental groups differ significantly from each other. The effect size η^2 indicates the variance in the adjusted dependent variable scores (Tabachnik & Fidell 2013). According to Cohen (1988), $\eta^2 = .01$ denotes a small, $\eta^2 = .06$ a medium, and $\eta^2 = .13$ a large effect size.

9. $F(2, 136) = 3.36, p = .038, \eta^2 = 0.05$.

affect their recollection of facts in the afternoon. This may be seen as grounds for recommending either that cases be interpreted simultaneously, or that consecutive be used only in the morning. Nevertheless, we did not test the possibility of interpreter fatigue, as the interpretation was scripted and role-played by a professional actor. Further research is needed to examine the interpreter's performance in relation to the time of day and the mode used.

2.2.2 Loss of concentration

A similar result was found when jurors were asked about loss of concentration, as shown by the two-way between-subjects ANOVA. Even though jurors indicated that they were equally engaged in the mock trial, irrespective of mode or time,¹⁰ they reported greater loss of concentration with consecutive interpretation than with simultaneous or with a monolingual arrangement,¹¹ as shown in Figure 2. This difference was most marked in the afternoon session. Once again, the pattern is that simultaneous interpreting elicited almost identical results to the monolingual condition; differences occurred when a monolingual regime was compared with consecutive interpreting.

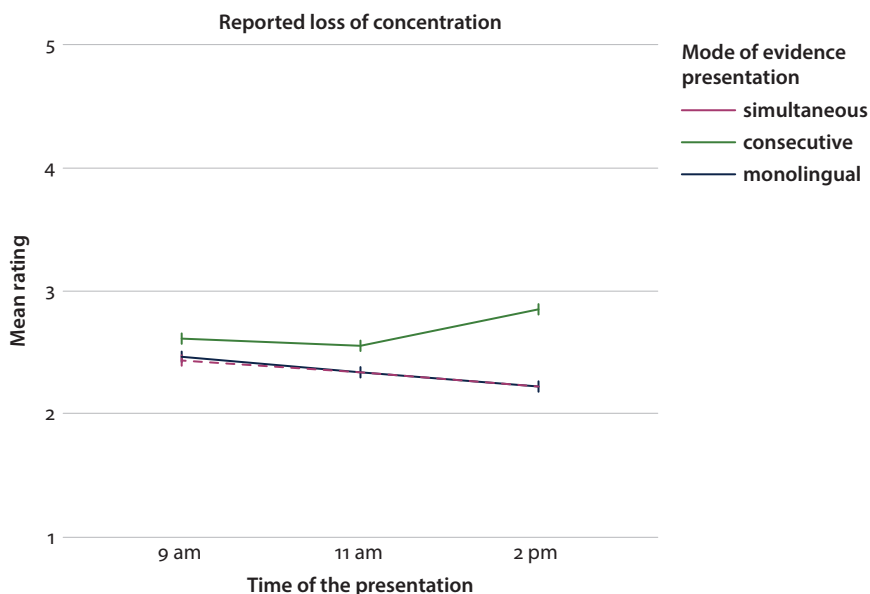


Figure 2. Reported loss of concentration according to time and mode of interpretation

10. $M = 4.36$, $SD = 0.72$, $p > .05$.

11. $F(2, 438) = 4.47$, $p = .012$, $\eta^2 = .02$.

Similarly, although jurors reported no problems understanding the trial in any of the three conditions,¹² they did state that they felt distracted to differing degrees according to how they followed the proceedings. In particular, there was a main effect caused by the mode of evidence presentation,¹³ which was moderated by the time of the presentation.¹⁴ Post-hoc analyses showed that the jurors who followed the consecutive interpretation felt more distracted by anything occurring during the trial than those exposed to simultaneous or to monolingual proceedings. These differences were particularly significant for both morning sessions (see Figure 3); in the afternoon, the jurors reported that they experienced similar degrees of distraction across all three trial conditions.

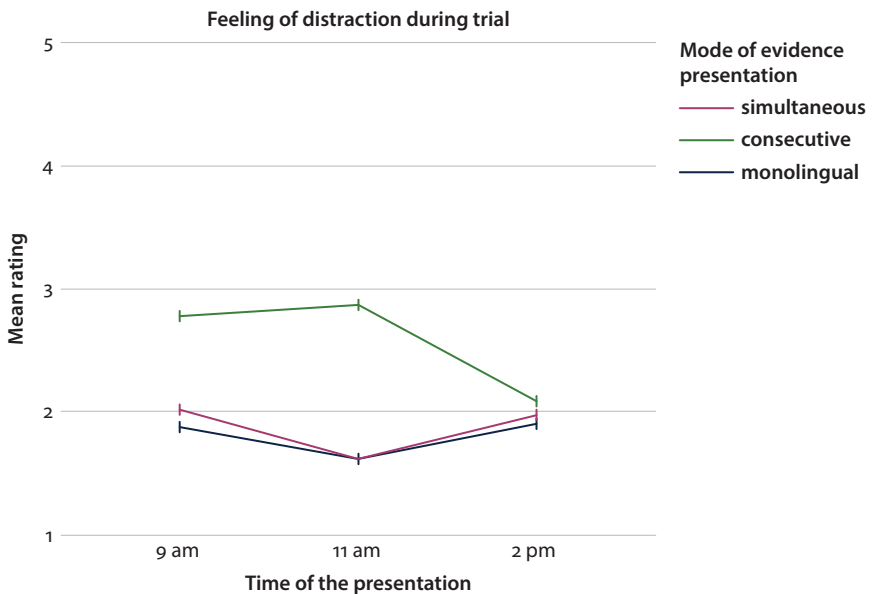


Figure 3. Feeling of distraction during trial, according to time and mode of interpretation

An interesting result was found in participants who followed the monolingual proceedings and were asked to speculate on whether they thought interpreting would make it difficult for them to follow the case if they were to hear the evidence in another language. Their answers to this question show a preconception about the impact of interpretation: while participants in the monolingual proceeding

12. $M = 1.85$, $SD = 1.07$, $p > .05$.

13. $F(2, 438) = 24.30$, $p < .001$, $\eta^2 = .10$.

14. $F(4, 438) = 4.74$, $p = .001$, $\eta^2 = .04$.

indicated that they would expect to find it moderately difficult to follow the case¹⁵ (see Figure 4), the participants who actually listened to consecutive or simultaneous interpreting did not find that it was difficult to the extent anticipated.

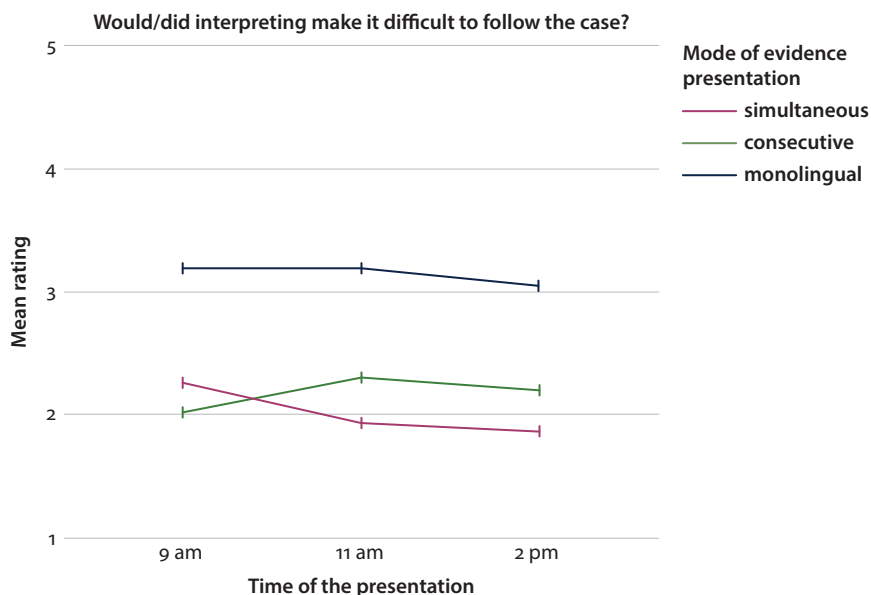


Figure 4. Impact of interpreting according to time and mode of interpretation

2.2.3 Differences between conditions in assessments of witness credibility

Assessment of a witness's or an accused's credibility is a crucial aspect of jury trials. In order to place a non-English speaker in the same position as an English speaker, as proposed in the declaration of the Commonwealth Attorney General's Department (1991) (see Section 1 above), the interpreter's impact on a case must be kept to a minimum. Experimentally, we tried to show how far the interpreter fulfils this stated ideal by comparing results obtained with monolingual communication to those for simultaneous and consecutive interpreting. In particular, we were interested in the accused's perceived credibility as measured with the Witness Credibility Scale (Brodsky et al. 2010). Overall, there were no significant differences between the three conditions,¹⁶ indicating that the involvement of an interpreter did not affect the accused's credibility: jurors perceived him as credible,

15. $F(2, 438) = 33.26, p < .001, \eta^2 = .13$.

16. $F(8, 444) = 1.69, p = .316, \eta^2 = .01$.

whether he responded to the (cross-) examination in English or via an interpreter, independently of the mode.¹⁷

2.2.4 *Consistency, reliability and credibility of testimony*

The jurors were asked further questions about the consistency, reliability and credibility of the accused's testimony.¹⁸ Overall, there was a main effect of interpreter presence on perceived reliability measures.¹⁹ When considering each of the dependent measures separately, the only measures to differ significantly were consistency and reliability of the testimony: jurors who listened to a consecutive interpretation perceived the testimony as more consistent and more reliable than jurors who observed the simultaneously interpreted case and the monolingual case, as shown in Table 1(a). Similarly to the results above, no differences between the experimental groups were found in the accused's perceived credibility. As explained above, the interpretation was scripted, the only difference being whether the jurors heard it simultaneously (i.e. while watching the accused) or consecutively (watching both the accused and the interpreter). In this case, they perceived the accused's consistency and reliability more favourably when they were able to see the interpreter. We speculate that the professional demeanour of the interpreter may have influenced their perceptions in this respect. It would be interesting to ascertain whether another interpreter would have elicited a different perception, in relation to such factors as gender, age, clothing or demeanour.

2.2.5 *Guilty verdict*

Most importantly, the jurors were asked whether the prosecution case convinced them that Mr López was guilty. We argue that the ideal situation is for the result to be the same, irrespective of whether the jury hear the evidence directly from the accused or the interpreter. Such a result was achieved between the monolingual, and the simultaneously interpreted conditions, which showed no significant differences (see Table 1(b)). However, significant differences were found between the consecutively interpreted condition and the monolingual condition. Those who heard the evidence interpreted consecutively reported they were less likely to be convinced by the prosecution than those who heard the original evidence in English or through the simultaneous interpretation. Nevertheless, the

17. Monolingual: $M = 108.69$, $SD = 22.16$; Simultaneous: $M = 104.86$, $SD = 22.72$; Consecutive: $M = 109.14$, $SD = 21.31$.

18. A MANOVA was conducted to test the impact of interpreter presence and time of day on these measures, with the Bonferroni adjusted alpha level of .017.

19. $F(6, 868) = 3.06$, $p = .006$, Wilk's Lambda = 0.96, $\eta_{\text{partial}}^2 = .02$.

Table 1. Results for (a) perceived consistency, reliability, and credibility of the accused when giving evidence in court; and (b) perception of how convincing the prosecution case was

	With interpreting, or monolingual communication			<i>F</i>	<i>df1, df2</i>	<i>p</i>	η^2
	Simultaneous	Consecutive	Monolingual				
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>				
(a) Perception of the accused's evidence							
Consistency	3.24 (1.18)	3.70 (1.11)	3.20 (1.15)	8.82	2, 436	< .001	.04
Reliability	2.76 (1.11)	3.04 (0.98)	2.73 (0.99)	4.27	2, 436	.015	.02
Credibility	2.69 (1.05)	2.94 (1.04)	2.71 (1.03)	2.58	2, 436	.077	.01
(b) Perception of the prosecution case							
Convincing	2.96 (1.29)	2.74 (1.24)	3.13 (1.27)	3.81	2, 437	.023	.02

Notes. Higher scores indicate greater perceived consistency, reliability and credibility. The maximum possible score was 5. Time of day, whether alone or in interaction with the presence of the interpreter, impacted none of the dependent variables ($p > .05$).

convincingness of the prosecution did not have an impact on jurors' verdict: their conviction rate did not differ between the different modes of evidence presentation.²⁰ Specifically, jurors were as likely to convict the accused when testimony was presented in English (49.0%), as when the testimony was interpreted simultaneously (45.9%) or consecutively (42.1%), although jurors were less likely to be convinced by the prosecution when they heard the evidence via the consecutive interpretation than when they heard the original in English or through the simultaneous interpretation.

There may be a number of different reasons for the offset between the perceived convincingness of the prosecution case and the actual verdict. First, whereas convincingness was measured on a five-point rating scale, verdict was a binary variable with only two possible answers, guilty vs not guilty. While the first question gives jurors more response options, including a non-committal 'neither agree nor disagree', returning a verdict forces jurors to take one view or the other. Second, even though the prosecution was perceived as more convincing when the accused was interpreted consecutively, this did not necessarily mean that jurors were convinced beyond reasonable doubt of the accused's guilt. Finally, jurors in the current study saw only an excerpt of the trial that lasted less than 60 minutes, whereas a real trial of this sort would normally have lasted several days and featured testimony from a variety of witnesses. The verdict might have differed

20. $\chi^2(2, 447) = 1.43, p = .489$.

accordingly. Further research is needed to replicate the findings and to test the impact of different interpreters on case outcome.

3. Conclusions

As stated in the introduction, very little experimental research has been conducted to ascertain the difference that interpreters can make to the outcome of a court case, and whether one interpreting mode is to be preferred over another. If the interpreter is to fulfil his/her role by placing the non-mainstream language speaker in the same position as a mainstream speaker (Commonwealth Attorney General's Department 1991), research must prove that the differences between a monolingual and an interpreted case are not significant. In other words, interpreted cases should elicit the same results with specific reference to witness credibility and rates of conviction. Previous research has shown that an important factor in achieving such a goal was interpreting accuracy with regard not only to content but also to speech style (Berk-Seligson 1990/2002; Hale 2004). However, the impact of the interpreter's presence and comparative effectiveness of the different modes of interpretation have not been fully assessed with specific regard to court interpreting in existing research. The research presented here is thus, to our knowledge, the first large-scale experimental study to address those questions.

This study produced three very important results, summarised below:

1. The *conviction rate* did not differ significantly between the jurors who assessed the monolingual case without an interpreter and those who assessed the bilingual cases with the same interpreter in either mode.
2. While a clear pattern emerged for *perception of the accused*, with no significant differences between the monolingual condition and the simultaneous mode condition, the consecutive mode was associated with a significantly more positive perception than the monolingual condition.
3. The *time of day* makes a difference to the jurors' level of concentration and their ability to recall the facts of the case: in particular, consecutive interpreting tends to distract jurors more in the afternoon.

These results suggest that faithful interpreting of the content and style of the original does not change the outcome of a criminal case, as the rate of conviction here was not significantly different across the three conditions. However, it would appear that the interpreting mode more conducive to placing the non-English speaker in the same position as an English speaker is the simultaneous mode.

Two very important factors that may have contributed to the above results must be highlighted: first, the interpretation was scripted and maintained accuracy

of content, manner and style; and second, the interpreter was provided with adequate working conditions and was assigned professional status by the court, which may have elevated her credibility in the eyes of the jurors.

With regard to the level of accuracy, as our literature review showed, opinions and research results about which mode is more likely to provide accurate renditions are varied and contradictory. More large-scale research needs to be conducted to ascertain whether it is possible for interpreters working in the simultaneous mode to achieve the required level of accuracy in court and ensure no significant differences from the original. The question of fatigue is also worth highlighting. This study used only one interpreter, who learned a script. A real interpreted case would ideally have to use the services of two or three highly trained interpreters to interpret in the simultaneous mode, as is the case in international courts.

These results, coupled with the findings summarised in the literature review, have implications for courts. Firstly, they indicate that adequately trained interpreters are needed in order to fulfil expectations in terms of accuracy. Secondly, interpreters will need to be provided with appropriate working conditions and be afforded the status and respect they deserve in order to perform to the best of their skill and ability. Thirdly, if judicial authorities do not want interpreting to have an impact on the way witnesses are perceived by jurors, they may consider setting up special courts with simultaneous interpreting equipment for bilingual trials. Although more research is needed to ascertain the levels of accuracy achievable by simultaneous interpretation, practice points to the need for two or three competent interpreters working in a booth. These recommendations have resource implications: there is a cost attached to quality of interpreting. However, the cost of inaccurate interpreting will be even higher.

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