Interpreting omissions

A new perspective

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This paper discusses findings of a study conducted on Australian Sign Language (Auslan)/English interpreters in a university lecture, with consideration given to factors that influenced the interpreters' omissions. The hypothesis of the study was that interpreters would make recourse to omissions both consciously and unconsciously, depending on their familiarity with the discourse environment and the subject matter. Through exploration of theoretical perspectives of interpreting and discourse studies, it is argued that interpreters use omissions as linguistic strategies for coping with the discourse environment. The findings of the study present interpreters with a new perspective on omissions in interpreting, which can be applied to both signed- and spoken-language interpreting.

Keywords: sign language interpreting, omissions, strategies, lexical density, educational interpreting, university lecture

Introduction

This paper presents findings of a study which explored the linguistic coping strategies of Australian Sign Language (Auslan)/English interpreters (Napier 2001). Apart from expanding the knowledge available about sign language interpreting, the findings are also relevant to interpreters working with two spoken languages, and therefore have implications for the interpreting profession as a whole.

The aim of the study was to analyze omissions by Auslan/English interpreters[1] as strategies for coping with the linguistic challenges of interpreting a university lecture. University interpreting is an expanding area of work for sign language interpreters now that more and more Deaf[2] people are accessing

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higher education. Among the linguistic challenges posed by a university lecture is the lexical density of the text. University lectures typically have a structure of language more characteristic of written than of spoken text, and a higher ratio of lexical (content) words to functional (grammatical) ones (Halliday 1978, 1985).

One of the unique aspects of the study was that it analyzed the metalinguistic awareness of interpreters by assessing how conscious they were of their omissions and of the reasons behind them. Rather than simply identifying seemingly erroneous omissions, the study defined five specific categories, based on whether interpreters were conscious of the omissions, and on whether these were strategic or intentional. By identifying interpreters' levels of metalinguistic awareness, it was possible to discern how factors such as lexical density and familiarity with the discourse environment and the subject matter would impact on the number and types of omissions made by the interpreters.

Theoretical foundations

A socio-cultural approach

Authors such as Cokely (1992), Frishberg (2000), Metzger (1995, 1999) and Roy (2000) state that any study of interpretation should apply a framework of sociolinguistic parameters, as interpreters mediate not only between two languages, but also between communities and cultures. Any interpretation therefore needs to be based on a linguistic and cultural understanding of the participants within an interaction, and of their differing norms and values.

The goal of interpretation has been stated in terms of 'equivalent effect' (e.g. Déjean le Féal 1990), that is, ensuring that the target-language audience derives the same meaning from a message as is intended by the source-language presenter. This goal can be difficult to achieve when discrepant socio-cultural backgrounds are involved. As stated by Metzger (1995: 29),

> …texts often depend on prior textual experiences in order to evoke significant meanings (intertextuality). When recipients of the discourse have not had experience with language and thus the relevant prior texts, it becomes the responsibility of the translator to provide a translation that allows the recipients to infer the ideological stances intended in the source.

To facilitate meaningful discourse among speakers of different socio-cultural worldviews, it is necessary for interpreters to be bilingual and bicultural, and to

apply appropriate interpretation methods to convey meanings across different socio-cultural contexts.

By using their contextual knowledge of both communities, their languages and cultures, and subsequently making inferences about what their audiences mutually understand, interpreters can ensure that their interpreting is linguistically and culturally effective for all participants. They will make specific language choices according to their understanding of certain concepts, and their inferences about what their source- and target-language audiences will understand of these concepts (Wilcox & Wilcox 1985; Metzger 1995, 1999; Napier 1998, 2002). Thus interpreters construct the meaning of a message according to the perspective of the receiver (Frishberg 2000), by considering the 'cultural realities' of the interlocutors (Cokely 2001).

To effectively evaluate their output with regard to the discourse environment, interpreters need to engage in a simultaneous monitoring process, drawing on what will be referred to as metalinguistic awareness.

Metalinguistic awareness

The concept of metalinguistic awareness is usually discussed within the context of language acquisition and development of literacy skills (e.g. Karmiloff-Smith 1986, Malakoff & Hakuta 1991). Garton and Pratt (1998) define it as "the ability to focus attention on language and reflect upon its nature, structure and functions" (p. 149), and state that "those who work with language must be able to focus attention on it" (p. 150).

According to Bialystok and Ryan (1985a, 1985b) and Bialystok (1991), metalinguistic awareness includes the skill of controlling attentional procedures that select and process specific linguistic information, as well as the facility to intentionally consider what aspects of language are contextually relevant. The concept, which has been alternatively referred to as 'meta-competence' (Nord 2000), or 'metacognition' (Peterson 2000), can therefore be applied to interpreters and to their ability to self-regulate and monitor their linguistic choices. In the present study, the focus was on a particular aspect of this metacognitive competence — Auslan interpreters' level of metalinguistic awareness of omissions when interpreting a lexically dense university lecture.

The context of situation

The study of language use, and therefore of the interpretation of language, cannot be separated from the situation in which it takes place. Sets of concepts for describing the situational context have been proposed by a number of authors, including Halliday (1978) and Hymes (1972). Cokely (1992) discusses the context of situation specifically in relation to sign language interpretation. Referencing the work of Hymes (1972), he identifies two types of components that affect communicative behaviour: 'interaction factors' and 'message factors'. The interaction factors that may influence the context of a situation, and therefore the work of interpreters, include setting, purpose and participants. The 'setting' takes into account a range of environmental or extralinguistic factors, which may influence interactive outcomes; the 'purpose' considers the activities, participant goals and subject matter within an interaction, and the 'participant' component refers to characteristics of individuals, or of actual or perceived relationships between individuals, which may affect the communicative interaction. Cokely (1992) then highlights the importance of recognizing how 'message factors' may affect an interaction. Apart from the crucial components of message form and content, this includes the message 'key', its channel and language form, the interaction norms and interpretation norms, and the discourse genre (cf. Hymes 1972).

It can be seen, therefore, that by defining the nature of a communicative interaction and establishing the situational context, it is possible to predict what may be expected of interpreters in those situations.

The lecture as a discourse genre

Lectures can be considered as a distinct discourse genre, defined by Goffman (1981: 165) as:

> an institutionalised extended holding of the floor in which one speaker imparts his views on a subject, these thoughts comprising what can be called his "text". The style is typically serious and slightly impersonal, the controlling intent being to generate calmly considered understanding, not mere entertainment, emotional impact, or immediate action.

Cokely (1992), who characterised lectures as non-reciprocal, or "expository" monologues (p. 27), noted that very few descriptive studies focus on the particular monologic discourse of lectures. Most descriptions so far have been in a more general vein. Goffman (1981), for instance, highlights three different

modes of speech production which place presenters on a different 'footing' with their audience: memorisation, aloud reading, and fresh talk. He states that lecturers often choose to read aloud from prepared texts, which influences the reception and responsiveness of an audience. According to Goffman, people may choose to read out printed text, rather than spontaneously provide 'fresh talk', due to different dynamics of written and spoken texts, which imply that written language has more status. Goffman asserts that the register of language used in a lecture is important in defining the relationship between speaker and audience. Therefore, although perceptions of 'good writing' and 'good speaking' are systematically different, people will often choose to 'read aloud' previously prepared texts when delivering a lecture, as printed text tends to be more coherent than spontaneously produced spoken text.

This finding has implications for interpreters working in university lectures, as Halliday (1978) suggests that academics often deliver lectures using language structure more typical of written than spoken English. He argues that academics are so influenced by their environment and their assumption of literate intelligence in university students, that they produce lexically dense spoken text when lecturing. Lexically dense spoken text is characterised by its conformity to typical written language structure, with a higher ratio of lexical (content) to functional (grammatical) words (Crystal 1995; Gerot & Wignell 1995; Halliday 1985; O'Loughlin 1995).

Typically, spoken text is marked by complex sentences with simple words, whereas written text has complex words in simple sentences, which Halliday (1985) attributes to its being static, compared with speech, which is dynamic. As a consequence, spoken language tends to be less lexically dense than written language. Ure (1971) states that the lexical density of a text is a function first of the medium (i.e., spoken or written) and second of the social function (i.e., pragmatic language use). This statement highlights how academic lecturers may be influenced by working in an environment where language use often relates to technical research, and spoken language production is therefore influenced by the written medium. The lexical density of text often found in lecture situations would therefore have implications for interpreters working in this environment.

Interpreting lexically dense text

Ure (1971) and Richards et al. (1992) suggest that lexical density, identified by measuring the ratio of lexical and grammatical words to the total number of

words in a text, can also be used as a measure of difficulty of a piece of text. According to Messina (1998), previously prepared texts that are read out verbatim create more problems for interpreters than spontaneous speech. He cites the "peculiarities of written texts and how they are usually delivered by speakers" as being the main factor affecting an interpreter's performance (p. 148). The key issue for interpreters when dealing with lexically dense text is a "higher risk of impaired understanding and interpretation as the interpreter's processing capacities reach saturation" (Messina 1998: 156). The reading of scripted texts, however, is not the only difficulty for interpreters. Spoken texts which are not necessarily read out, but are prepared, may also be lexically dense, and thus provide a challenge to interpreters.

As a result of his analysis of 34 spoken and written texts, Ure (1971) developed a list of typical density percentages. The various spoken texts (including informal dyadic conversation, storytelling, and a radio interview and sports commentary) were found to have a lexical density range of 23.9% to 43.2%. It also emerged that all the texts with a density of 36% or more were monologues, whereas all those under 36% involved some form of interaction. Ure found that a typical spoken lecture had a lexical density of 39.6%. Based on a calculation of the mean lexical density of Ure's spoken text samples, it appears that spoken text has an average lexical density of 33%.

Although there are many other variables that may contribute to text difficulty in comprehension, such as syntactic factors (Davison 1980; Thor 1987), the degree of abstraction (Stolze 2001), factuality and inferentiality (Pearson & Johnson 1978; Poindexter & Prescott 1986), lexical density is clearly among the most salient difficulties facing sign language interpreters, and may affect the way in which Deaf people will access the information. This presents a challenge for sign language interpreters, who may have to decide what aspects of the message are the most important to convey — which means taking into account the following issues: the language contact situation of interpreting between English and Auslan; the norms of sign language production for a lecture in general; the cultural relevance certain lexical items, and their possible linguistic and cultural equivalents; and the linguistic strategies to be adopted in order to ensure that the Deaf audience receives the same message as the non-deaf audience. The 'contextual force' or 'relative impact' (Isham 1986) of the message on the receiver should ultimately be the same for Deaf and non-deaf audiences.

These sociolinguistic constraints, which require consideration throughout an interpretation, are summarised by Nida (1998) as (1) the appropriate

language register to be used in the context; (2) the expectations of the target audience as to the type of translation they should receive; (3) distinctive sociolinguistic features of the source text; and (4) the medium employed for the translated text (i.e., written, spoken or signed).

For sign language interpreters working with Deaf students in a university lecture, there are additional sociolinguistic factors to take into account. The interpreter needs to consider his or her role in an educational environment, and the fact that Deaf people may be disadvantaged when compared to other university students (due to having English as a second language and not having 'direct' access to the lecture content). Although all university students may attend lectures without any background knowledge of the subject, and thus lack familiarity with the subject-specific terminology, the interpreter is faced with the task of deciding how to provide an interpretation that is linguistically and culturally sensitive, incorporating meaningful equivalents, while still providing Deaf students with the opportunity to access specialized terminology that may be important in order to fully understand the subject of the lecture.

Thus, the interpreter also needs to judge the importance of lexical items presented in the lecture source text and decide when it might be appropriate to add or omit information for the sake of clarity. It is thus all but inevitable that interpreters will make recourse to omissions. Some of these may be accidental or unconscious, whereas others may be part of the conscious linguistic decision-making process.

Omissions

An omission is defined as "something that has not been included or not been done, either deliberately or accidentally" (Fox 1988: 547). In the interpreting literature, omissions have typically been regarded as errors or "lexico-semantic 'deviations' from the source text" (Pöchhacker 2004: 142). Most famously perhaps, Barik (1975) proposed an error taxonomy including four types of omissions: skipping (of a single lexical item); comprehension (omission of a larger unit of meaning as a result of an inability to comprehend the source language message); delay (omission of larger unit of meaning due to lagging too far behind the speaker); and compounding (conjoining elements from different clauses or sentences). Kopczynski (1980), who draws on Barik's taxonomy, makes the distinction between "obligatory" and "optional" omissions, with obligatory omissions arising as a result of differences between the structures of the two languages being interpreted (p. 85). These types of omissions

are deemed more or less appropriate according to whether key words within a piece of text are translatable. Kopczynski discusses omissions as both errors of performance and errors of competence. He argues that omissions could be regarded as performance errors because they can be affected by memory lapses, failure to choose the optimal moment of interpreting, time pressure, fatigue, etc. However, they can also be regarded as competence errors if they occur due to the interpreter's failure to understand the source language message.

Other writers (e.g. Altman 1989; Cokely 1992; Moser-Mercer et al. 1998; Russell 2002) have adopted a similar approach, mostly viewing omissions as errors. With reference to Enkvist (1973), Kopczynski (1980: 64) questioned whether an interpretation should be analyzed by counting the number of errors or by measuring its success in communication. In supporting a goal-oriented approach to performance analysis, Enkvist (1973) had suggested the concept of contextual appropriateness as a yardstick for assessing utterances in the context of situation, claiming that errors should only be considered as such in relation to functionally relative objectives.

Winston (1989), who studied the interpretation of a lecture into American Sign Language with a focus on interpreters' "conscious strategies used during analysis and production of the target form, rather than random productions or errors" (p. 152), highlights particular strategic choices that are used to achieve certain types of effective interpretations — identified through consultation with the interpreter. These strategies include the use of additions and omissions. Winston concludes that certain portions of the source language, redundant in the target language, were omitted. She claims this strategy was used to achieve the goal of efficiency, for the sake of providing a pragmatic translation, even though direct lexical equivalents were available.

Livingston, Singer and Abramson (1994) also note that omissions do not necessarily lead to a degraded understanding of the message. In fact, they reinforce the concept of omissions being used consciously as part of a strategic linguistic process. They explain that certain information might be omitted from an interpretation for two reasons. First, the interpreter may make a conscious decision to omit an item for fear of being unable to find an equivalent. Second, the decision may be based on the interpreter's estimation of what would be meaningful to the particular target audience. Livingston et al. condone the use of omissions as part of a strategic decision-making process which can enhance an interpretation, and note that "omissions were not necessarily indications of a poor interpretation… it appeared to be just the opposite" (p. 28).

In the taxonomy of interpreters' 'renditions' proposed by Wadensjö (1998), the categories most relevant to the notion of conscious strategic omissions are *zero renditions* and *reduced renditions*, also referred to as *condensing strategies* (Sunnari 1995) or *selective reductions* (Hatim & Mason 1990). Wadensjö (1998: 107) defines reduced renditions as "less explicitly expressed information than the preceding 'original' utterance". Thus, some omissions can be regarded as strategies whereby a conscious decision is made to leave something out, or to reduce the amount of source-language information rendered in the target language.

Adapting the taxonomies discussed above to reflect the theoretical perspective of the study, the researcher defined the following categories of omissions:

1. *Conscious strategic omissions* — omissions made consciously by an interpreter, whereby a decision is made to omit information in order to enhance the effectiveness of the interpretation. The interpreter applies his or her linguistic and cultural knowledge to decide what information from the source language makes sense in the target language, what information is culturally relevant and what is redundant.
2. *Conscious intentional omissions* — omissions contributing to a loss of meaningful information. The interpreter is conscious of the omission and has opted for it intentionally due to a lack of understanding of a particular lexical item or concept, or an inability to retrieve an appropriate equivalent in the target language.
3. *Conscious unintentional omissions* — omissions that contribute to a loss of meaningful information. The interpreter is conscious of the omission, but has not chosen it intentionally. Having heard the lexical item, s/he decides to 'file it' before interpreting it, waiting for more contextual information or depth of meaning. Due to further source-language input and lag time, however, the particular lexical item is not retrieved, and is ultimately omitted.
4. *Conscious receptive omissions* — omissions contributing to a loss of meaningful information. The interpreter is aware of these, but cannot properly decipher what was said, due to (reported) poor sound quality.
5. *Unconscious omissions* — omissions contributing to a loss of meaningful information. The interpreter is not conscious of the omission and does not recall hearing the particular lexical item(s).

Design and methodology

Research questions and hypotheses

Within the conceptual framework described above, the researcher designed an experimental study involving a combination of three different procedures: 'tough-case analysis', that is, a tricky interpreting situation (Moser-Mercer 1997); 'process tracing', whereby the subject runs through the task a second time (Moser-Mercer 1997); and 'retrospective interviews' (Hoffman 1997). The study addressed the following research questions:

1. How many omissions do Auslan interpreters make (within the omission types defined as part of this study) when interpreting a university lecture?
2. To what extent are Auslan interpreters metalinguistically aware of the types of omissions they make while interpreting a lexically dense university lecture?
3. To what extent do the linguistic features of the source text (that is, lexical density and academic English) influence the occurrence and types of omissions produced by Auslan interpreters?
4. To what extent do other factors (that is, interpreters' familiarity with academic discourse and subject-specific terminology) influence the occurrence and types of omissions produced by Auslan interpreters?

It was hypothesized that the linguistic features of the source text would impact upon the occurrence and types of omissions produced by Auslan interpreters, and that interpreters would be most influenced by their level of familiarity with academic English and subject-specific terminology. Interpreters who had a university qualification and were more familiar with the lecture topic were expected to make more conscious strategic omissions because they would feel more comfortable doing so based on their familiarity with academic English and subject-specific knowledge.

It was also expected that interpreters would make more omissions in the most complex, that is, lexically dense, parts of the text. While it was assumed that all interpreters would unavoidably make conscious unintentional omissions due to cognitive overload, those who had knowledge of the lecture topic were expected to have fewer conscious receptive omissions than those without such knowledge.

Participants

The participants were ten Auslan interpreters who had responded to a survey (Napier 2001) and had indicated willingness to participate in an experimental study. All held NAATI accreditation at the professional level.[3] Six were native signers, and the other four had studied Auslan as adults. Six had completed university education, two were studying towards undergraduate degrees at the time of the research, and two had never studied at university. All ten had some experience of university interpreting, but only five were familiar with the lecture topic. (Profiles of the interpreters can be found in Table 3.)

Source text

The source text was taken from a videotaped university lecture, delivered in English as part of a postgraduate degree program in Special Education (Sensory Impairment). The lecture was entitled 'Signed language acquisition of deaf children' and had previously been interpreted by a professionally accredited Auslan interpreter — which is taken as evidence of the 'interpretability' of the lecture. The actual lecture lasted approximately two hours; only the first 30 minutes were used for the purposes of this research. The lecture was prepared, with the lecturer presenting from notes with some level of improvisation. The lecturer spoke at a reasonable pace, so that speed of delivery was presumably not an issue. There was little interaction with the students. The lecturer spoke with a soft voice, meaning that the resulting sound quality in some parts of the videotape was poor. The lecture was analyzed as having a lexical density of 51% — 18 percentage points higher than the average spoken text (Ure 1971); it may therefore be considered lexically dense.

Procedure

All interpretations were produced individually in a room with a television and a video camera, the only other people in the room being the researcher and a Deaf person acting as a 'receiver' for the interpretation. Sign language interpreters often rely on feedback from their clients (in the form of nodding, facial expression, etc.) to gauge whether their interpretation is being understood and whether they need to make any adaptations (Brennan & Brown 1997). Several writers (such as Maroney & Singer 1996; Napier 1998) have commented on the negative impact of not having a Deaf target audience when studying the work of sign language interpreters, due to the possible skewing of interpretations

when no 'feedback' is received. The presence of a Deaf receiver was therefore considered a necessary component of the data collection. For the purposes of this study, the interpreters were asked to visualise their target audience and were also able to maintain eye contact with a 'real' Deaf person, thus making the interpretation process as authentic as possible. The same Deaf person 'received' the Auslan interpreted lecture from all participants, and acted as a target for the interpreting output.

The interpreter was positioned so he or she could be filmed during the task, but could still comfortably refer to the television screen.[4] The Deaf person sat next to the video camera facing the interpreter, and the researcher sat in the corner of the room outside the field of vision of the interpreter.

Participants were given the same instructions, with the researcher following a script to ensure consistency of information given. They were told the topic and source of the lecture, but were not given any further information in relation to the content. Each subject was given a list of proper nouns mentioned throughout the lecture before beginning the task, to ensure familiarity for fingerspelling. Participants were permitted to watch the first ten minutes of the lecture in order to familiarise themselves with the topic and the pace of delivery, before interpreting the next twenty minutes of videotape.

While an interpreter in a real-life situation might interrupt a speaker to ask for clarification or repetition, the subjects were informed that the videotape would be played all the way through without any pauses. It was expected that during the task review, the interpreters would point out where they would normally have asked for clarification.

Throughout the task, the researcher, herself an accredited Auslan interpreter, referred to a transcript of the lecture and underlined any lexical omissions that were made throughout the interpretation. Omissions were noted according to the following definition based on a review of the literature: 'when information transmitted in the source language with one or more lexical items does not appear in the target language, and therefore potentially alters the meaning.'

On completion of the interpreting exercise, the subject was given a five-minute break if required, after which he or she sat down with the researcher and performed a task review. The Deaf receiver was no longer in the room. The procedure of the task review involved the researcher and participant watching a playback of the videotaped interpreting task, and pausing the video when omissions were noted in the Auslan rendition of the English lecture. If omissions were noted, the participant was asked to explain why he or she thought the omission might have occurred, and whether he or she was aware of it at

the time, that is, whether it was conscious or unconscious. The purpose of the review was to establish whether omissions were being made on a conscious or unconscious level. If subjects identified conscious omissions being made as a linguistic strategy, they were asked to elaborate on why they had made the conscious decision to omit particular types of information. Notes of their comments were added to the transcript used by the researcher, and the whole review was videotaped in order to provide evidence for inter-rater reliability checks at a later stage.

A retrospective interview for the purpose of "knowledge elicitation" (Hoffman 1997; Monacelli 2000) took place on completion of the task review. The interview, which aimed at eliciting subjects' perceptions of the interpreting task, was conducted by the researcher using pre-set focus questions, and was also videotaped. The focus questions asked how the interpreters felt about the overall piece of interpretation; whether there was anything with which they were particularly happy or unhappy; what they had found easiest or most difficult about the task; whether they had any particular skills or knowledge which contributed to their ability to interpret for the lecture; and whether they thought there were any other skills or knowledge that they did not possess, which might have helped them to interpret the lecture more effectively. Finally, the interpreters were asked to comment on perceptions they had about their own educational background and its effect on their interpretation skills.

The goal of the retrospective interview was to ascertain whether the interpreters felt there was any relationship between their level of educational achievement, and their ability to interpret for a university lecture, alongside their ability to objectively reflect on their work and identify strengths and weaknesses.

Finally, the researcher categorised the omissions of each subject according to the subjects' self-reporting of reasons for omissions, using the omission taxonomy described above.

Reliability

To check for reliability, a second rater was asked to reanalyze data from all phases of the experiment. The checks involved evaluating the data of three subjects chosen at random, collected at different stages of the data collection process.

The rater needed to be bilingual in English and Auslan, to have the ability to freely access each language, and to have experience in analysing and critiquing interpretations by other interpreters. Thus an accredited interpreter with

experience in training and assessing interpreters was contracted to check the collected data for reliability.

The second rater used the definition of the concept of an omission applied by the researcher when looking at the interpreting tasks of three subjects, and followed the same methodology as the researcher — underlining lexical omissions noted while watching the interpretation. The inter-rater reliability rate was found to be 95%.

With regards to reliability of the task review data, it was necessary for the rater to note the types of omissions identified and discussed between the researcher and all participants. The rater watched the task review videotape for each subject and noted the comments made with regards to why omissions were made, and then categorised each omission using the suggested taxonomy. The types of identified omissions were then cross-referenced and compared with the categorisations of the researcher and found to be 86% reliable.

The final reliability check involved the rater watching the retrospective interview and noting any key issues that were highlighted. These key issues were then counted and compared with those noted by the researcher in the original interviews. The retrospective interview check was found to have a reliability of 83%. According to Burns (1997), a reliability study should produce a minimum correlation of 80%. As all three inter-rater checks produced a score of over 80%, each stage of the research process was deemed to be reliable.

Results

A total of 341 omissions were made by all ten subjects, across all five categories, with a mean of 34.1 omissions per subject. The highest number of omissions by one subject was 50, with the lowest number being 18. Table 1 provides a breakdown of the omissions by all ten subjects.

As seen in Table 1, the most commonly occurring omissions were unconscious, followed by conscious strategic, conscious intentional and conscious receptive, with conscious unintentional omissions being least frequent.

Analysis of the number and types of omissions by interpreters involved in the study demonstrates that unconscious and conscious strategic omissions are the most frequent types. The figures show that interpreters' use of omissions as a linguistic coping strategy is sometimes conscious, meaning that not all omissions should be counted as errors. The figures also demonstrate, however, that a large proportion of omissions made by interpreters are not intentional.

Table 1. Total omissions made by all subjects across all categories

Omission categories	Number of omissions (percentage)
Unconscious	92 (27%)
Conscious strategic	87 (26%)
Conscious intentional	61 (18%)
Conscious receptive	52 (15%)
Conscious unintentional	49 (14%)
Total omissions	**341**

Table 2. Total and types of omissions per subject

Omissions per subject per category (in %)	Subject									
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Conscious strategic	32.3	14	18	31.5	16.5	26.8	30	31	24.5	33.5
Conscious intentional	26.5	30	16	17.5	16.5	6.7	24	7	17.5	9
Conscious unintentional	14.7	10	9	19.5	28	16.5	12.5	17.5	13.5	12
Conscious receptive	3	22	20.5	12	22.5	20	12.5	10	13.5	15.5
Unconscious	23.5	24	36.5	19.5	16.5	30	21	34.5	31	30
Total (%)	100	100	100	100	100	100	100	100	100	100
Total (number of omissions)	(34)	(50)	(44)	(41)	(18)	(30)	(33)	(29)	(29)	(33)

When studying the occurrence of the discrete omission types more closely, it can be seen that different factors influenced the rate of particular omission occurrences. Table 2 provides information on the percentage of omissions made by each subject in the different categories.

While *conscious strategic omissions* are seen here as a linguistic coping strategy for all sign language interpreters, regardless of their educational background or familiarity with the topic, their frequency in the case of a university lecture was expected to be affected by these personal background factors. The researcher predicted that interpreters who had a university qualification and were more familiar with the lecture topic would make greater recourse to conscious strategic omissions than those without relevant qualifications or knowledge of the lecture topic. It was assumed that interpreters with more exposure to the general academic discourse environment would feel more comfortable about making strategic linguistic and cultural decisions involving omissions, especially if they had subject-specific knowledge and could thus judge the importance of terminology used. The mean number of conscious strategic omissions made by each interpreter was 9.5, with the highest number being 13, and the lowest being 3 (Table 3).

Table 3. Number of omissions in relation to subjects' familiarity with the topic and university qualification[5]

subject no.	**2**	**3**	**1**	**10**	**4**	**7**	**5**	**6**	**8**	9
Familiarity with topic	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
University qualification	None	None	Under grad	Under grad	Post grad	Under grad	Post grad	Post grad	Post grad	Post grad
Conscious strategic	7	8	11	11	13	10	3	8	9	7
Conscious intentional	15	7	9	3	7	8	3	2	2	5
Conscious unintentional	5	4	5	4	8	4	5	5	5	4
Conscious receptive	11	9	1	5	5	4	4	6	3	4
Unconscious	12	16	8	10	8	7	3	9	10	9

The figures in Table 3 show that while conscious strategic omissions are below the average in the case of the two subjects with no qualifications, the same applied to subjects with postgraduate qualifications. Paradoxically, the three subjects with the highest number of conscious strategic omissions were those less familiar with the topic. Thus it would appear that conscious strategic omissions are used as a linguistic coping strategy by all interpreters, and that in the particular discourse environment of a university lecture, the educational background and topic familiarity of the interpreters does not influence the frequency of conscious strategic omissions.

Conscious intentional omissions did not reveal any particular pattern either (Table 3). The mean for this type of omission was 6.1, with the highest number being 15, and the lowest being two. Contrary to expectations, those who were not university educated, or who were unacquainted with the lecture topic, did not show a greater number of omissions in this category due to lack of familiarity with the academic register and subject terminology. Although the subject who made the most omissions was not university educated and not acquainted with the lecture topic, and the two responsible for the lowest number of omissions were in fact educated to postgraduate level and familiar with the topic, the findings are not consistent enough to suggest that these factors influenced the outcome. Conscious intentional omissions were made by interpreters who had university qualifications and who were familiar with the subject area. They were apparently unable to understand lexical items or concepts, or else did not know the meaningful equivalents in the target language.

Conscious unintentional omissions were used consistently by all subjects, regardless of their educational background or familiarity with the lecture topic. Almost all subjects made either four or five conscious unintentional omissions, except for subject number four, who made eight omissions, giving a mean number of 4.9 conscious unintentional omissions per subject.

Assuming that unintentional omissions are a cognitive information processing issue, they could not be avoided even with a better educational background or increased knowledge of the topic. All the subjects in the study agreed that they had had every intention of interpreting a particular piece of information, and had been trying to make a strategic decision in waiting for further contextual information, but the information had somehow slipped through.

The mean for *conscious receptive omissions* was 5.2, the highest number being 11, and the lowest being one (Table 3). Conscious receptive omissions occurred due to reported problems in hearing the source text, which some of the subjects attributed to the poor sound quality of the videotape used. It is worth considering, however, that the two interpreters who made well above the average number of conscious receptive omissions had no university qualifications and did not have any familiarity with the lecture topic.

The three interpreters who produced an average, or slightly above average, number of conscious receptive omissions were unfamiliar with the lecture topic, but had a university education. All those who produced less than the average number of conscious receptive omissions had a university education, and all but one were also familiar with the lecture topic.

Viewed in the light of frame theory (Goffman 1974; Metzger 1999; Schank & Abelson 1977; Schiffrin 1993; Tannen 1979; Wilcox & Wilcox 1985), these findings suggest that those who were more familiar with the discourse environment and lecture topic may have been better equipped with the contextual knowledge needed to make predictions about the information being presented, and to 'second-guess' lexical items that could not be heard properly. Even those unfamiliar with the topic, but with an understanding of general academic discourse may have been able to infer meaning and 'fill the gaps' of what they could not hear properly. Those without the advantage of prior knowledge of the topic or familiarity with the language register, however, had to rely solely on what they could hear, which may account for the omission of lexical items that could not be heard properly.

Finally, the mean for *unconscious omissions* was 9.2, ranging from three to 16 omissions (Table 3) — a much higher figure than envisaged. It was also surprising that this type was slightly more prevalent than the conscious strategic

omissions. Again, the two interpreters with no university qualifications or lecture content knowledge accounted for the most omissions in this category, but otherwise, the distribution of omissions was not consistent with either qualifications or familiarity with the topic.

It is generally accepted amongst interpreters and interpreter educators that it is not necessary to interpret every lexical item received, but that the source-language message should be 'chunked' into meaningful parts, and equivalent intent sought after in the target language (Winston & Monikowski 2000). The notion, however, that interpreters omit items in a university lecture because they do not even hear the information in the source language, regardless of their level of qualifications or subject knowledge, has implications for interpreter training.

Thus far, the analysis has demonstrated that the educational background of interpreters is not a major factor on its own that affects the rate and type of omissions, and that the interpreters' previous knowledge of the lecture topic has only a slight impact. When neither factor is present, however, an increase in non-strategic omissions is likelier, especially with conscious receptive and unconscious omissions. A combination, therefore, of interpreters' familiarity with the general academic discourse environment and the subject-specific content and terminology of a lecture would appear to be the most consistent factor in determining the rate of occurrence of omissions.

Omission patterns and lexical density

It was originally assumed by the researcher that there would be a high level of correspondence between lexical density and omissions. To test this assumption, it was necessary to compare the number of omissions on an average line of text with that of lines with above-average lexical density. It was expected that a relationship would be found between the number of omissions and the lexical density of a line of text. In hindsight, it would have been more logical to base the analysis on sentences (i.e., logical units) rather than on lines of text with arbitrarily produced boundaries. The analysis of lines of transcribed text, however, still allows us to identify key points of the text which were lexically dense, and the corresponding frequency of omissions.

The overall lexical density of the university lecture text was 51%, based on the calculation method proposed by Ure (1971). Using the first line of each page of text, the average lexical density of a line of text was calculated at 47.6%. Seven lines of text selected at random and analysed for lexical density were

Table 4. Lexical density of text and number of omissions

Line no.	**117**	**1**	**4**	**21**	**67**	**136**	**113**	**139**	**159**	**116**	**59**	**90**	**104**	**169**
Lexical density (%)	21	33	37.5	46	47	47	50	50	56	57	62.5	62.5	71	78.5
No. of omissions	7	0	1	2	0	1	1	8	0	7	10	7	10	11

found to have three of average lexical density, two above and two below the average. In order to test the relationship between the number of omissions and lexical density of text, the seven lines of text highlighted as those with the highest number of omissions (see Appendix) were also calculated for lexical density. It was found that, with one exception, all the lines of text with the highest number of omissions had a lexical density higher than that of the average line of text. In order to identify whether those lines of text with a lower percentage of lexical density produced a smaller number of omissions, all the lines of text analysed for lexical density were compared for density and number of omissions, as shown in Table 4.

Table 4 indicates that the lexical density of the text does seem to influence the number of lexical omissions. The relationship between omissions and density becomes evident when lexical density reaches 57% — almost 10 percentage points above the average for a line of text, with a sharp increase in the number of omissions. Interestingly, those lines with the highest lexical density (104 and 169) also featured the highest number of conscious strategic omissions in proportion to the total number on that line.

If, as stated by Halliday (1978), university lectures are typically presented in lexically dense text, the results of this study illustrate that sign language interpreters will inevitably use omissions, some of which will be strategic. It is arguable, however, whether the primary factor affecting the rate and type of omissions is lexical density or whether it has to do with the lexical items themselves, that is, with the interpreter's familiarity with academic vocabulary and the subject-specific terminology. If interpreters are familiar with the content words being used in lexically dense parts of the text, they are less likely to erroneously omit the meaning of those particular lexical items, but might choose to omit them strategically as part of the linguistic decision-making process. As discussed earlier, however, interpreters may generally experience difficulties in interpreting lexically dense text, depending on the presentation style and on whether the text is read out or spontaneous.

Thus far it has been established that the lexical density of the source text, and familiarity with it, affect the occurrence and types of interpreters' omissions. It has also been demonstrated that the types of omissions are affected by the interpreters' conscious monitoring of the discourse, and the application of their knowledge of the discourse environment as well as the linguistic and cultural expectations of the discourse participants.

Drawing on their metalinguistic awareness during the interpreting process, subjects were able to indicate what types of omissions had occurred. During the retrospective interview, it emerged that the interpreters regarded their educational background, and especially their familiarity with general academic discourse — with typical 'academic speak' — as major factors enabling them to interpret the lecture effectively.

Discussion

This study has presented a new perspective for the consideration of omissions in interpreting, and has demonstrated the importance of considering a range of omissions types. It can be seen that interpreters do use omissions proactively, making conscious strategic decisions as an intrinsic part of the interpreting process and a way of managing the communication event. They also resort to other omissions, however — conscious or unconscious, intentional or unintentional. The fact that omissions can be used strategically does not negate the fact that seemingly unwarranted omissions do occur, some of which interpreters are aware of, and others of which they are not. The key finding, though, seems to be that a high percentage of the omissions made by interpreters in this study were in fact conscious strategic ones — the second most frequent category. Moreover, the highest number of omissions tended to occur in segments of higher than average lexical density. This is not particularly surprising, as any interpreting scholar would expect interpreters to struggle when dealing with factors contributing to 'cognitive overload' (Moser-Mercer et al. 1998). What is interesting, however, is the extent to which some interpreters in this study used conscious strategic omissions to cope with the density and complexity of information they were receiving. It follows that the discourse environment does have an impact on the type of omissions, and that effective use of omissions as a conscious linguistic strategy while interpreting a lexically dense university lecture, or in fact any university lecture, is a function of the interpreter's familiarity with academic discourse, and with the specific topic. By extension, it is suggested that by developing their awareness of the linguistic factors affecting

their ability to interpret in a particular context, interpreters may be able to predict the 'omission potential' of an interpretation.

While this study has focused on omissions in the output of Auslan interpreters, the findings can be extrapolated to interpreters working in other languages as well. The interpreters in this study showed high levels of metalinguistic awareness, and there is no reason to doubt that this would be the case for other interpreters in different contexts using different signed or spoken languages.

It should be recognised that factors such as the context of situation, familiarity with the discourse environment, knowledge of the topic being discussed and familiarity with the interaction participants could impact upon the rate and types of omissions, regardless of where the interpreting was taking place, and with whom. In terms of studying interpreting in different contexts, it would be valuable to replicate this study, and to analyse the rate and prevalence of conscious strategic, conscious intentional, conscious unintentional, conscious receptive and unconscious omissions in other interpreting scenarios, such as a medical appointment, a job interview, a conference paper, or a meeting situation. The research could then be taken one step further, contrasting interpreters working in identical situations, but with varying degrees of preparation. To further enhance our understanding of omission potential, it would be beneficial to see a similar study conducted with spoken-language interpreters, to establish the effect of modality on the pattern of omissions.

Additional research will allow interpreters, interpreter educators and interpreting researchers to further explore the linguistic strategies used, and the factors that influence the outcome of an interpreted communicative event. Rather than thinking about whether interpreters succeed or fail, research enables us to consider the strategies employed, and interpreters' contributions to the outcomes of such events.

Notes

1. For expediency, henceforth referred to as Auslan interpreters.

2. Any discussion involving Deaf people concentrates specifically on sign language users who use a sign language as their first or preferred language, and who perceive themselves as members of a linguistic and cultural minority group, as opposed to persons with a hearing loss. Adopting a common convention used in sign language/deafness-related literature, this paper uses the upper case 'D' in the word 'Deaf' to signify a deaf 'identity'. Whenever 'hearing' people are mentioned, this implies that the writer is referring to the majority of people in society who do not have any kind of hearing loss, and who are not necessarily familiar with the Deaf community, its culture and the concept of a Deaf identity.

3. In Australia all interpreters are accredited through the National Accreditation Authority for Translators and Interpreters (NAATI). For Auslan, two accreditation levels are available — Paraprofessional and Professional Interpreter.

4. It is common for sign language interpreters to look at the presenter of the source text during substantial pauses as a strategy to inform Deaf consumers that there is no source text to interpret.

5. Subjects accepted as being related to interpreting included Deaf studies or linguistics. At the time of the study, no university qualifications existed in sign language interpreting. In 2002, a Postgraduate Diploma in Auslan/English Interpreting was established in the Linguistics Department of Macquarie University, Sydney.

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Appendix: Lines of text featuring highest proportion of omissions

Words in **bold** are function (grammatical) words (i.e., pronouns, prepositions, conjunctions, determiners and auxiliary verbs). Lexical density is calculated as the percentage of content (lexical) words (i.e., nouns, verbs, adjectives, adverbs) out of the total number of words.

Line 59: 6 function words, 10 lexical words; 10/16 = 62.5% lexical density

Line 57: The second issue I'd like to look at is, partly by way of
Line 58: exploding a myth, is the notion of early acquisition. What some people, or we can refer to
Line 59: **as** precocity **or** precociousness **in, erm**, sign language acquisition. **There** is very very very much **a**
Line 60: sort of an idea there in people's minds that children learning a sign language, acquire sign
Line 61: language earlier than children acquiring a spoken language…

Line 90: 6 function words, 10 lexical words; 10/16 = 62.5% lexical density

Line 87: Erm, as I said, we don't have time to go into it tonight, but some of the work on early sign
Line 88: language acquisition has, erm, made some interesting points in that regard and led a lot of
Line 89: researchers to challenge the notion that that's the necessary relationship in quite the, the
Line 90: lock-step way **that** Piaget **and** others were suggesting. **And the** last issue **that**, again, **we**
Line 91: won't have time to go into tonight is the… issue of nativisation and denativisation.

Line 104: 5 function words, 12 lexical words; 12/17 = 71% lexical density

Line 103: Where there's been a long tradition of oral education and
Line 104: very little El Salvador! El Salvador! **And** very little, **er**, use **of** sign language, **and there**'s
Line 105: evidence on kids acquiring, sort of, linguistic or universal characteristics of sign language
Line 106: in the absence of good input, and then gradually as more and more exposure to a formal
Line 107: sign language occurs, denativising and moving towards that particular, erm, set of sign
Line 108: language rules and features.

Line 116: 6 function words, 8 lexical words; 8/14 = 57% lexical density
Line 117: 15 function words, 4 lexical words; 4/19 = 21% lexical density

Line 114: Erm, and a number of authors over a long period of
Line 115: time have, and Snow, that we talked about last week, Catherine Snow? Who's been so
Line 116: vocal **on the** issue **of erm, er**… critical crtical critical period hypothesis, thank **you**!
Line 117: **has done an** enormous amount **of** work **on this. So, over to you for a** minute. **What do we**
Line 118: know about the characteristics of caregiver input that makes it, that seems to be a critical
Line 119: component of language acquisition?

Line 139: 10 function words, 10 lexical words; 10/20 = 50% lexical density

Line 137: But the actual nature of
Line 138: the features does seem to differ slightly across certain cultural groups. *(student question)*
Line 139: **It** was definitely **a** 60s thing, **I'm not** suggesting **you** were **in the** 60s, **but there** was **a** 60s/
Line 140: 70s thing, a of, sort of, seeing pop psychology time, you know, making the child a genius
Line 141: type thing, which advocated a particular level of discourse with a child.

Line 169: 3 function words, 11 lexical words; 11/14 = 78.5% lexical density

Line 167: Well you tell me, what are the features of mother/ child,
Line 168: motherese babytalk? (*student comment*) Repetition… (*student comment*) Erm, to a certain
Line 169: extent, imitation figures more highly **in** mother/ child, **you** know, "say such **and** such"
Line 170: (*babytalk intonation*) or "say daddy, say mummy" (*babytalk intonation*).

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