

Research on Interpreting with Signed Languages

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Abstract

This presentation provides a general outline of research on interpretation involving a signed language. It covers selected studies from various research domains, as well as a few studies on the processing and linguistic structures of signed languages that have relevance for the field of interpretation. Future lines of investigation are also suggested.

Introduction

I have been asked to review the research literature on interpreting with signed languages. As with the literature involving spoken languages, most of the publications contain theorizing, leaving little for experimentation. Even so, time constraints prevent me from going into any great detail on any one paper. Instead, my plan is to give you a taste of the work in a broad range of domains, mentioning example papers along the way. Each paper is listed in the references, so that you may decide which articles you would like to pursue.

I used the following criteria in choosing these papers: 1) research on interpretation of signed languages; 2) articles that would represent a wide range of topics and disciplines; and 3) papers that would presumably be available to readers in Europe. Quality has taken a lower priority, only because there are not enough studies to warrant strict adherence in this regard. Like all areas of research, the quality ranges from the excellent to the terribly bad. I hope I have excluded the latter entirely, but otherwise I have chosen papers that had something worthwhile to offer in one way or another. Finally, all but a few of the articles mentioned below come from the United States and Canada. This is not due so much to choice as it is to necessity: there is not enough communication between signed-language interpreters and researchers in North America and those in Europe (and indeed, other parts of the world). Therefore, much of the work done in Europe remains unknown to us, or at least, to me. With this paper, I hope to share what has been happening on my side of the Atlantic; with this conference, I hope to learn what has been happening on yours.

As with all research on interpretation, there are major themes; I have organized my talk around them. The first is the issue of modality, that is, working with languages that differ in their channels: a spoken language that uses oral/aural channels, and signed languages that employ visual/gestural channels. In this section, I present a few papers that deal with the nature of signed languages, as well as the distinction between interpreting and transliterating.

Next, there is language processing, the cognitive aspect of the interpreting task, followed by neurolinguistics, although we are vastly behind the spoken-language field in work in this area. I then turn to sociolinguistics, which in our field involves both the nature of "contact languages", and community interpreting. Finally, there is research in the area of performance factors, such as the effects of stress, both physical and mental, that are placed on interpreters of signed languages.

You may have noticed that I have not included studies on aptitude for interpretation. This is for a good reason: there are none. The only paper I could find (Smith 1984) is a response to a paper by Moser-Mercer (1984), and it does not present an experimental study.

Modality

The most striking difference between spoken-language interpreters and those that interpret to or from a signed language is, of course, in the modality used. While, in essence, the two kinds of interpreting share many aspects, the school at Trieste would be naive to think it is simply taking on one more language that happens to be visual/gestural in nature. First, Trieste should expect *Lingua dei Segni Italiana* (LIS) to be very different in grammar than most of its other working languages. I can predict with confidence that LIS will have less in common with Italian, German, and French than these languages have with each other. The strategies for interpreting between LIS and spoken Italian, therefore, will be more similar to interpreting between Italian and Chinese, than between Italian and French. No reference to LIS linguistics is included here (see the paper by Corazza; this volume): I simply want to stress that as work proceeds toward adopting LIS, faculty and students will first need to educate themselves on the nature of signed languages in terms of their linguistic structure, and the repercussions that structure will have on strategies chosen to teach interpretation.

Another difference that signed languages bring to the table is the distinction between "interpreting" and "transliterating." Not all people with a hearing loss will know or prefer LIS, and some will, instead, be using a manual code to represent (spoken) Italian in the visual modality. Thus, interpreters working

with the Deaf Community often have two skills: the rapid recoding of spoken words into signs that represent those words, known as "transliterating," and "interpreting," used here in the specific sense of working between two natural languages. Transliterating has some aspects in common with "form-based" interpreting, yet there are differences too. Winston (1989b) and Siple (1997) provide descriptions of this task, and Siple also gives a brief overview of the history in North America as the field tried to define transliterating succinctly (no easy task). Both papers are based on observational studies.

The effectiveness of interpreting when compared to transliterating is examined by Livingston *et al.* (1994 1995). Both references explain the same study, which measured "effectiveness" by testing the comprehension of the target-language audience. The 1995 paper is better written and better organized: the 1994 paper is included only because it might be more readily available to European readers.

Pronunciation takes on new meaning in a visual/gestural language. Winston (1990) examines the accent of second-language learners, and suggests drills and activities that might be used to improve this aspect of interpreting into a signed language.

The late June Zimmer performed some studies on the use of register in sign-language interpreters, that is, the degree of formality that exists in the surface structure of the interpreted utterance. Her 1989a paper looks at the features of formal discourse in American Sign Language (ASL), and her 1990 paper examined how registers in ASL were interpreted when English was the target language.

Cognition

In the literature on spoken-language interpreting, studies on the cognitive processing involved perhaps make up the greater proportion of the experimental work. This is true with signed languages as well. In 1988, Ingram tested interpreters for their memory for structure (wording) and semantics (meaning) of narrative prose. In essence, he replicated the work by Gerver (1974) and Lambert (1989), and Ingram compared his results directly to theirs in his discussion.

Cokely (1986) investigated the lag times of signed language interpreters, and whether the distance between source language (SL) and target language (TL) could predict the number and type of errors interpreters made. His results paralleled those found by Barik (1975) and others: shorter lag times led to an increase in errors of every type except omissions, while longer lag times improved performance across the board, with only the number of omissions increasing.

Davis (1990) looked at the interference of the source language (SL) on the target language (TL) rendition, a central problem in the case of signed languages because quasi-form-based interpreting can act as a "last resort" in the form of transliterating.

Siple (1993) used observational procedures to analyze how pauses made by the SL speaker were used by transliterators, and whether and how her subjects conveyed those pauses to the TL audience.

In several experiments, Isham compared the processing differences between interpreters and transliterators. In one (Isham & Lane 1994), a cloze task was used to look for evidence that comprehension was required to a greater degree during interpretation than during transliteration. In others, he examined verbatim recall of the SL sentences after subjects had interpreted them. From this data, Isham inferred differences in processing between transliterating and interpreting of both signed (Isham & Lane 1993) and spoken languages (Isham 1994). Isham (1995) used data from these papers to discuss the importance of comparing results from signed- and spoken-language interpreters with each other.

Fingerspelling may perhaps be the single newest aspect of interpretation that Trieste will undertake by adopting LIS. This is the rapid presentation of handshapes produced serially to represent the letters of words from spoken languages. The ability to read rapid fingerspelling when presented in context is one of the more challenging aspects of learning (and interpreting) a signed language.¹ Patrie (1992) is the premiere researcher on the cognitive processes involved and has written both about its implications for understanding cognitive processing in general and more specifically, novice/expert shifts in reading fingerspelling. She also addresses pedagogical issues for teachers of interpreters.

The field of signed-language interpreting research is far behind that of spoken-language interpreters when it comes to studies in neurolinguistics. I could only locate one article from Kanda (1990). It is a demographic survey on the characteristics of professional interpreters in North America, but it also includes data on "brain dominance," that is, whether or not interpreters display a (left) hemispheric preference for language processing, as is typically found in monolinguals.

1 ...although I am told that fingerspelling plays a lesser role in LIS than it does in ASL (personal communication, P. Girardi 1997).

Sociolinguistics

Because any Deaf Community will necessarily have daily contact with a majority language, the interactions and communication between hearing and deaf peoples can be understood in terms of "contact language." For a description of the phenomena, see Lucas and Valli, 1992. Because most interpreters in the U. S. are second language learners of ASL, interpreting from their A language (English) into their B language (ASL) is perhaps more commonly performed than in the spoken-language interpreting field. Davis (1989) examines how SL interference arises in the TL renditions of interpreters, presumably both from the presence of a contact language and from the fact that interpreters are working from an idiosyncratic learner's grammar. Winston (1989a) examines this issue also.

Community interpreting has historically played a larger role in the working life of interpreters for the Deaf than it has for spoken-language interpreters. We commonly act as escort interpreters in the daily lives of our consumers, covering situations ranging from classrooms (all levels), to medical appointments, to theatrical experiences. Roy (1996) examined the influence of the interpreter on the turn-taking behavior between a professor and Deaf graduate student. Zimmer (1989b) looked at such interactive settings more generally, as well as a concept she calls "naturalness" in ASL/English interpreting (1992).

One of the few papers on the reference list that is not experimental in nature was included because the setting may be new to the Trieste school: interpreting in mental health settings. Harvey (1997), a therapist, presents a fascinating account of his experiences using an interpreter for family counseling sessions in which one family member was a Deaf woman. Issues of psychological transference and therapeutic strategies are discussed, topics that may present ethical dilemmas for the interpreter: a thought-provoking paper.

Performance Factors

Just as in the spoken-language field, stress and fatigue influence interpreter performance. One of the earliest studies was conducted by Brasel (1975), who counted errors in the TL rendition and plotted them against time. Brasel found the expected result that errors increase with time, and drastically so after 20 or 30 minutes. Heller, Stansfield, Stark and Langholz (1986) performed an exploratory study on interpreter stress, and this paper may be easier to locate than the little-known Brasel paper.

Because signed languages involve repeated gross-motor movements when signing, interpreters are also at risk of a more permanent form of damage than

spoken-language interpreters: these conditions fall under the rubric of "Repeated Motion Injuries," and include such maladies as carpal tunnel syndrome, tendinitis, and others. Stedt (1992) documents the problem, and Sanderson and Yapp (1989) provide a description of the problem, as well as methods of prevention and treatment. The latter is the one reference of a VHS videotape, rather than printed material.

Wrapping Up

Finally, I must mention another two articles that I thought you should be aware of. Firstly, Woll (1988) reports the results of a survey on the training and provision of signed-language interpreters in the European community and secondly, readers should be aware of a volume by Patrie and Mertz (1997). This is a bibliography of articles on interpretation, which includes theoretical and practical papers as well as experimental studies, and although a few papers from the spoken-language field are included, the bibliography is mainly focused on work with signed languages. This annotated bibliography has made my task infinitely easier. For that, I thank Carol Patrie, who is with us today.

Of course, there are many articles that I have not been able to include in today's presentation. I hope, however, that with the help of the provided reference list, you will be able to follow up on topics that are of interest to you, starting with the cited papers, and continuing with the articles you will find cited within them.

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