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Advances in Interpreting Research

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Advances in Interpreting Research

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Advances in Interpreting Research. Inquiry in action
Edited by Brenda Nicodemus and Laurie Swabey

Advances in Interpreting Research

Inquiry in action

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Table of contents

Preface vii

Introduction 1
Laurie Swabey and Brenda Nicodemus

Researching interpreting: Approaches to inquiry 5
Franz Pöchhacker

Designing a research project: Beginning with the end in mind 27
Debra L. Russell

Identifying and interpreting scientific phenomena:
Simultaneous challenges to interpreting research 47
Barbara Moser-Mercer

The first three years of a three-year grant:
When a research plan doesn't go as planned 59
Melanie Metzger and Cynthia Roy

Methodology in interpreting studies:
A methodological review of evidence-based research 85
Minhua Liu

If a tree falls in a forest and no one is there to hear it, does it make a noise?
The merits of publishing interpreting research 121
Jemina Napier

"Mark my words": The linguistic, social, and political significance
of the assessment of signed language interpreters 153
Lorraine Leeson

Developing and transmitting a shared interpreting research ethos:
EUMASLI – A case study 177
Jens Hessmann, Eeva Salmi, Graham H. Turner and Svenja Wurm

Profession in pentimento:
A narrative inquiry into interpreting in video settings **199**
Rico Peterson

Through a historical lens:
Contextualizing interpreting research **225**
Robert Adam and Christopher Stone

Bimodal bilingual interpreting in the U.S. healthcare system:
A critical linguistic activity in need of investigation **241**
Laurie Swabey and Brenda Nicodemus

Index **261**

Preface

While the discipline of Translation Studies (TS) at large was born out of the initiative of scholars from the world of literature interested in translation, Interpreting Studies (IS) was started by interpreting practitioners and interpreter trainers who still represent the overwhelming majority of authors in the field. A discipline populated and driven by such practitioners-cum-researchers ("practisearchers") is an interesting object of research in itself, especially when many of them, including many of the most prominent authors in the field, have had little or no training in research.

One striking feature of early history of IS is the important role played in its development by "personal theorizing", i.e. systematic individual reflection on one's professional experience. It is such personal theorizing by pioneer Danica Seleskovitch which led to the crystallization of the Interpretive Theory paradigm, a set of ideas about the nature of the interpreter's (and translator's) work which has become the backbone of translator and interpreter training methods in many parts of the world (a recent update of the ideas making up this paradigm is offered in Lederer 2006).

Personal theorizing has the major advantage of being highly relevant to the phenomena at hand – but it is also self-limiting. Genuine engagement with other theories as well as empirical research are required to enrich it, correct it, and bring in new perspectives. Within conference interpreting, wide interaction between researchers started in the early 1990s, as evidenced *inter alia* by citations patterns. It gradually grew from small local networks with few links between them to wider networks with links to various schools of thought and some cognate disciplines, mostly linguistics, cognitive psychology, psycholinguistics and neurophysiology (Gile 2006). More recently, with the development of research into public service/community interpreting (PSI), significant interaction has started beyond conference interpreting and between various branches of IS, including interpreting in court and hospitals, as well as for medical consultations, asylum seekers etc.

Citation analysis helps identify a number of interesting phenomena in this inter- and intra-disciplinary interaction. One of them is the existence of discipline- and sub-discipline specific hierarchized citation patterns (the first and fourth items below are documented in Gile 2005, 2006 and Nasr 2010; the second and third are currently under empirical testing):

- IS authors cite TS authors much more often than TS authors cite IS authors;
- within spoken language interpreting, PSI authors cite some conference interpreting authors as well as TS authors, but few conference interpreting authors or TS authors cite PSI authors (except in overall reviews and analyses of IS);
- signed language interpreting authors cite spoken language interpreting and in particular conference interpreting authors much more often than the other way around; and
- finally, TS and IS authors cite authors from cognate disciplines such as cognitive psychology, linguistics, comparative literature, philosophy, cultural studies and sociology much more often than the other way around.

Another interesting phenomenon evidenced through citation analysis is that TS authors, including IS authors, tend to be cited for their theories and opinions, but much less often for their research methods or findings, except in a few subbranches such as research into interpreting quality (see Gile 2005, 2006; Nasr 2010). This contrasts sharply with patterns found in established empirical disciplines. It can be taken as one indicator of the general weakness of the empirical side of the discipline, which is perhaps related to the lack of training in empirical research methods within TS in general and IS in particular, though marked improvement has been achieved over the past decade or so.

Also related to the empirical vs. non-empirical distinction in the field, close scrutiny of the work of TS authors reveals the existence of two distinct ways of doing research, one closer to a tradition which emerged from the natural sciences, and the other closer to the liberal arts, a point which was first made by Moser-Mercer (1994). In particular, the two traditions have different norms regarding what evidence justifies what claims. Some authors do not like this distinction, which they claim to be “divisive”, and call for a merger or some middle way between the two. This very rejection of a (potential) finding before it has been explored in reasonable depth is another indicator of the weakness of IS as an empirical discipline.

My view is that exploring the distinction empirically can help gain better understanding of the operation of TS as a field of research and of the reasons for some misunderstandings between authors (see for instance Gile in Schäffner 2004: 124–126), and inform decisions in research policy and research training.

I see a similar advantage to exploring the differences between various branches of interpreting rather than denying their existence under the motto “we are all interpreters”. Interestingly, judging by citations found in signed language interpreting publications, conference interpreting in spoken languages seems to have been a source of inspiration, or perhaps aspiration, for signed language interpreters. This is understandable: for historical and economic reasons, conference

interpreting has from the start benefited from higher prestige and remuneration. And yet, conference interpreting only represents a fraction of the work of signed language interpreters, and many of the issues they face are quite different from those encountered in conference interpreting. It is therefore a good thing that public service interpreting, which is at least as relevant to the needs of signed language interpreting, is gaining more recognition within IS.

Actually, in terms of research, signed language interpreting probably has more to offer than conference interpreting, if only because it covers a far wider range of settings and roles arising from actual expectations of users, as well as important sociological and psychological components that are virtually nonexistent in conference interpreting. Fortunately, over the past decade or so, conference interpreters have become more interested in public service interpreting, and are perhaps more prepared to listen to the discourse of signed language practitioners, trainers and researchers and learn from them.

This book is good news, firstly because it powerfully brings together authors from signed and spoken language interpreting in a collective volume. The fact that TS, including IS, needs more empirical research but still offers little training in research methods gives another reason to rejoice about this volume: while in the TS literature, there is an abundance, perhaps an over-abundance, of abstract analyses and categorizations, in this collection, some well-known authors have chosen to write about down-to-earth questions and offer practical descriptions of situations and projects. Their papers are refreshingly useful for beginning or aspiring researchers.

Thinking about the same potential readers: practices from other disciplines are useful input, but phenomena and environmental conditions vary, and aspiring researchers should know that the most sophisticated methods are not necessarily the most powerful under all conditions. For example, speaking about interpreting, where inter-individual and intra-individual variability is high and it is difficult to recruit samples of more than 10 people, experimental designs with highly controlled conditions and highly quantifiable indicators with inferential statistics for dessert are not always the most effective tool. "Quasi-experimental" designs and even non-experimental designs can often yield more while remaining just as "scientific", as long as they are compliant with underlying norms of science.

Methodologically speaking, IS has a long way to go, and initiatives such as this volume will certainly help.

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Every art and every inquiry, and similarly every action and choice, is thought to aim at some good; and for this reason the good has rightly been declared to be that at which all things aim.

Aristotle

Introduction

Laurie Swabey and Brenda Nicodemus
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In any discipline, research is a dynamic and additive process. We agree with Gee (2006) that research "is not an algorithmic procedure; it is not a set of 'rules' that can be followed step-by-linear-step to obtain guaranteed results" (p. 6). Rather, research employs diverse modes of inquiry and a variety of strategies for measuring data, whether in quantum mechanics, botany, or philosophy. This multi-faceted approach is especially applicable to inquiry in interpreting studies. Our community of practice is comprised of individuals who use a variety of frameworks, theories, and methods in an effort to learn more about the cognitive, linguistic, and social processes that influence interpreting. New knowledge is cultivated when a community shares ideas – and it is in that spirit that we offer this new volume.

Genesis of the volume

The idea for this volume was conceived in an inauspicious setting – a deserted food court in a small-town airport in the central United States. After attending a regional conference for signed language interpreting practitioners, we sat together, mulling over the events of the past few days while waiting to catch our flights home. We had come to the conference to give talks on our respective research projects and to participate on a scholar's panel regarding research in American Sign Language/English interpreting. The scholar's panel was scheduled at 8:00 a.m. on the final day of a tightly-packed conference, and we were surprised that the session was filled to capacity. In addition, the participants were actively engaged in the topic of research, as demonstrated by the intensity of their questions at the end of the session.

As we reviewed our experience on the panel, we observed that there has been a paradigm shift in our field regarding the connection between research and practice. A growing number of practitioners understand the value of grounding their work in evidence-based studies, rather than drawing on a collection of anecdotes

cobbled together over time. The involvement of the participants in the panel session suggested a high degree of interest in research, with clear aspirations to apply it to their practice. At the same time, the type of questions directed to the panel indicated that working interpreters and educators lack a schema for incorporating research into their work, as well as a broad understanding of the interplay between scholarship and practice.

These observations led us to revisit the existing literature on interpreting research where we identified a need for publications for interpreters interested in research, aspiring researchers in interpreting studies, and interpreting educators. It was in this context that this volume was born.

Content of the volume

Historically, spoken and signed language interpreting research has been conducted independently of each other, with little examination of common themes. This collection charts new territory by addressing an array of topics germane to both spoken and signed language interpreting research, across both language modalities, with 11 chapters on critical topics on theory and practice. The chapters represent the thinking and expertise of an international slate of interpreting researchers from Australia, Asia, the British Isles, Europe and North America.

Literature in interpreting studies has traditionally fallen into three categories: reporting research findings, examining a specific interpreting domain (e.g., healthcare, education, conference interpreting), or analyzing a particular methodology or framework (e.g., discourse analysis, pragmatics). A notable exception is Benjamins' own volume, *Getting started in interpreting research: Methodological reflections, personal accounts and advice for beginners* (Gile, Dam, Dubslaff, Martinsen and Schjoldager 2001). The current volume extends this earlier work by moving beyond the initial stages of interpreting research, with topics ranging from analysis of theoretical orientations in interpreting studies to practical considerations for conducting and publishing interpreting research. Perspectives are provided from both spoken and signed language interpreting researchers, revitalizing critical topics with timely perspectives.

The volume opens with an examination of the research process by **Franz Pöchhacker** who both describes foundational issues that are inevitably faced by interpreter researchers and offers an imprimatur for mixed-methods studies. Next, **Debra Russell** applies real-world examples from her own research studies as she explicitly describes the various stages in a successful research project. **Barbara Moser-Mercer** follows with an account of the critical challenge of interpreting research in identifying and interpreting scientific phenomena. **Melanie**

Metzger and Cynthia Roy illustrate the realities of a study based on video recordings of interpreted interactions in their description of the trials and tribulations of conducting research with timelines and circumstances that inevitably don't go as planned. **Minhua Liu** emphasizes the critical exploration phase of research – knowing the literature – in her extensive review of empirical research on interpreting. **Jemina Napier** addresses a crucial component of the research process, that is, the exchange of scholarly ideas through publication.

The next two chapters of the volume highlight the intersection between research and education. **Lorraine Leeson** confronts the challenges of assessing the competence of interpreters, specifically as it pertains to their education. This is followed by a report from **Jens Hessmann, Graham H. Turner**, **Eeva Salmi** and **Svenja Wurm** on an innovative European initiative that infuses a research ethos within a graduate program in interpreting and, as such, has the potential to change the way interpreters approach their work.

The final three chapters focus on current critical research questions. **Rico Peterson** addresses interpreting in the digital age with a provocative analysis of the corporatization of the work. Following this, **Robert Adam** and **Christopher Stone** investigate the historical context of interpretation and translation in deaf communities, providing readers with a fuller and more accurate description of the origins of the discipline. In the final chapter, the volume editors **Laurie Swabey** and **Brenda Nicodemus** construct an argument for the advancement of research in bimodal healthcare interpreting and offer critical topics in need of investigation.

In closing

Given the advent of a multitude of new graduate programs in interpreting studies in North America, Europe, and Australia, and the importance of interpreting worldwide, this volume addresses a need in the burgeoning fields of interpreting education and research. We anticipate a readership of graduate students, interpreting practitioners, educators, and aspiring researchers, with this volume serving as essential reading for anyone undertaking or studying interpreting research. It is also our hope that those already engaged in research will find ideas in several of the chapters that will serve to rekindle or further their passion and commitment to research.

Finally, thanks are in order. As we developed the scope and purpose for the volume, we interviewed numerous colleagues for their insights and opinions. We extend our sincere gratitude to Terry Janzen, Marc Marsharck, Debra Russell, Franz Pöchhacker, and Cynthia Roy for their time and insights. Further, we owe thanks to Daniel Gile and Betsy Winston for offering helpful perspectives during

the early stages of the work. Thanks are also due to Sharon Neumann Solow and Marty Taylor for serving as outside reviewers for our own chapter. Additionally, Isja Conen at Benjamins provided us with guidance at each stage of the volume and for that we are grateful. We also extend our thanks to Richard Laurion, who invited us to the panel that provided the seed for this collection.

In closing, it must be said that we greatly appreciated the knowledge and professionalism of the contributing scholars throughout the process of editing this book. It has been an honor and a pleasure to work with each one of these esteemed colleagues and we are thankful for their dedicated involvement throughout the process. Most importantly, we want to acknowledge again that the spark for this landmark collection came from practitioners' growing interest in research, and the strong desire to effectively use research to elevate practice and instruction. This volume foreshadows the potential of larger contributions from signed language interpreting to the existing body of knowledge in interpreting studies.

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Researching interpreting

Approaches to inquiry

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This chapter addresses some of the more fundamental issues in research on interpreting. After a reflection on the purpose and use of research on interpreting, the diversity of concepts, models, and interdisciplinary approaches is used as a point of departure for a discussion of the identity of the field as a scientific discipline. Based on a review of basic epistemological positions and methodological choices, interpreting studies is portrayed as an empirical-interpretive discipline with an affinity to the social sciences and a natural sensitivity to constructivist orientations. Given the wide array of methodological options, mixed-methods designs are discussed and exemplified as a promising approach that transcends the quantitative-vs-qualitative controversy and is well attuned to the complexity of the object of study.

Introduction

For most practitioners of interpreting, whether they work in international conference or media settings, or in courtrooms, hospitals, police stations, asylum tribunals, schools and social-service institutions, the idea of research on interpreting, let alone *doing* research on interpreting, is not at all self-evident. Theirs is an eminently practical, real-life – and real-time – occupation, the training for which, ideally in a university-level course, would also have centered on acquiring the necessary skills and technical knowledge, with little mention, if any, of research.

And yet, the realm of professional training readily supplies a two-fold answer to the question of *what* there is to do research on, namely, the complex mental process(es) underlying the task, and ways in which this composite language processing skill can best be acquired, or taught. The latter concern is clearly reflected in the literature on interpreting, from Herbert's (1952) handbook on how to become a conference interpreter to the watershed Trieste Symposium in 1986 (Gran and Dodds 1989) up to the flurry of collective volumes on the teaching of signed

language interpreting in the early twenty-first century (Roy 2005) and the launching of a journal dedicated to interpreter education (IJIE 2009).

Notwithstanding the crucial role of interpreter education as the driving force of research endeavors, which is clearly associated with the institutional background and affiliation of those making up the interpreting studies community, there is a sizeable body of research findings on what one might call the phenomenon of interpreting as such. But that – the phenomenon as such – is precisely where we begin to encounter a particularly striking feature of the state of the art in research on interpreting – that is, the diversity of ways in which interpreting has been conceptualized and modeled, from the perspective of scientific disciplines as different as anthropology, cognitive science, linguistics, neurophysiology, and sociology. For as much as interpreting studies has staked out its claim to a parcel of academic territory of its own, within the broader field of translation studies, there is no doubt that much of its progress has been based on and derived from advances in other, more established disciplines or sub-disciplines thereof. This explains the wide array of theoretical and, no less, methodological approaches to the study of interpreting. It is this methodological diversity, linked up with the diversity of conceptual approaches and models that constitutes the topic of this chapter. The basic question before us, then, is not what, but *how*.

Unlike other reviews of research methods in interpreting (Gile 1998; Liu in this volume), my focus will be on the deeper layer of methodological reflection – on the epistemology of interpreting research, which has received very little attention in interpreting studies so far. I will begin with a brief overview of the state of the art with reference to the sources and currents of inquiry into interpreting to date. Acknowledging diversity – of concepts and methods – as a highly prominent feature of interpreting studies as a "disciplinary matrix" (Kuhn 1962, 1996), I will discuss the field's underlying epistemological assumptions as shaping its identity as a scientific discipline. In a more practical orientation, I will then review the various methodological options in research on interpreting with reference to examples, highlighting in particular the growing acceptance of mixed methods designs.

Diversity

Research on interpreting has clearly come a long way since Jesús Sanz (1930) first interviewed professional interpreters in Geneva about the nature of their work and skills. Still, some features of his pioneering endeavor are highly reflective of the way interpreting research was to progress in the latter half of the twentieth century. As an educator, Sanz was looking in on interpreting from the outside,

using research methods in which he would not have had special expertise, to gain insights that he presented at a conference of applied psychology. Outside interest and input was crucial as long as a research community for interpreting in its own right did not exist; an orientation toward psychology, even among those coming from different (academic) backgrounds, was obvious, given the desire to learn more about the workings of this human ability; and the issue of appropriate research methods and designs, and the skills required for using them, is a pervasive one in any scientific inquiry.

Much has been written about the formative decades of research on interpreting (Gile 1995; Pöchhacker 2004), when attention was focused on the cognitive processes in simultaneous interpreting (SI) and psychologists such as Henri Barik and David Gerver gave momentum to the field, among other things by generating methodological debate. From those crucial beginnings in the 1970s, the field later developed in both a vertical and a horizontal sense, exploring the skill set of (simultaneous) interpreting in ever more profound and sophisticated ways, and widening the scope of interpreting phenomena under study to include previously neglected modes, modalities and settings. Thus, at the turn of the century, there was a growing perception of interpreting studies as an academic field in its own right, though "still based on a number of different paradigms" (Garzone and Viezzi 2002: 11). It is the nature of this field, and of these paradigms, that require further analysis in this paper, and I will use a set of recent books as my point of departure.

2004

The year 2004 is a significant one in any review of the literature in interpreting studies. Aside from the fact that it happens to be the year of publication of my introductory textbook, where a more detailed account of the field's evolution and breadth of topics can be found, 2004 stands out as an *annus mirabilis* of interpreting research, judging by the exceptional density of monographs on interpreting published that year. In the *Benjamins Translation Library* (BTL), which is clearly the leading and most extensive book series in translation studies, a dozen volumes were published in 2004, five of them single-author monographs on interpreting. Taken as a snapshot of research output in a given year and medium of publication, these books – by Angelelli, Chernov, Diriker, Hale, and Sawyer – nicely reflect the diversity of domains and research approaches: There is Chernov's (2004) posthumously edited monograph based on his Russian 1978 classic that stemmed from psychological experiments carried out in interdisciplinary cooperation; Diriker's (2004) amply triangulated case study of conference interpreting from

the perspective of Critical Discourse Analysis; Angelelli's (2004a) sociolinguistically framed survey of interpreters in three countries across professional domains, including medical interpreting; Hale's (2004) study of court interpreting practices on the basis of an authentic corpus and "matched guise" experiments; and Sawyer's (2004) groundwork on curriculum design in interpreter education, with a case study based on examination records.

Several insights can be gleaned from this bumper crop of monographs in the BTL series: The various authors cover a broad range of professional and geographical contexts and use different overall research strategies – fieldwork (case study, ethnography), surveys, and experiments – and quantitative as well as qualitative data. With one exception (Angelelli), all the authors are experienced professional interpreters, and all are (or were) linked to university-level interpreter training programs. As indicated in the brief descriptions above, some of the theoretical and methodological approaches are quite distinct, and the key question to be asked here is to what extent these five studies pertain to the same, or different paradigms.

Ways of seeing

The notion of 'paradigm' has been a conceptual cornerstone to the theory of science ever since Thomas Kuhn (1962) used it to analyze change processes in the history of the natural sciences. In this inherently sociological account, scientific thought and research are shaped by a consensus among the members of a given scientific community regarding basic assumptions, concepts, models and standard methods. Starting with basic concepts, working within a paradigm thus implies a consensual definition of one's object of study and related terms. In other words, the paradigm determines what constitutes a valid object of study in the first place, as exemplified in interpreting studies by leading interpreting scholars' refusal to deal with interpreting as practiced by untrained bilinguals (Seleskovitch 1985), or by the failure of many scholars, well into the 1990s, to take account of interpreting in signed languages. However legitimate such conceptual choices may be, making "professional" or "spoken" a definitional feature of what is to be studied obviously has far-reaching consequences.

The same applies to what is called "interpretive hypotheses" for the concept under study (Chesterman and Arrojo 2000: 156), as in stating that interpreting can be understood as a form of code-switching, or cultural transfer. I have suggested that some of the predominant ways of conceptualizing interpreting include the notions of verbal transfer, cognitive information processing skills, making sense, text/discourse production, and mediation (see Pöchhacker 2004: 54–60).

What is foregrounded in one's view of the object (e.g., language, text, interaction) obviously depends on the researcher's conceptual perspective or 'way of seeing'. This is particularly consequential for a field of study that receives contributions from other disciplines, as was the case during the first few decades of research on interpreting. Therefore, the paradigms of interpreting research are largely a matter of existing and influential disciplinary frameworks before and during the emergence of a disciplinary matrix of interpreting studies in its own right.

The range of disciplines that have had an impact on the development of interpreting studies is broad and diverse. Numerous subfields within the cognitive, linguistic and social sciences and humanities, from anthropology and artificial intelligence to neurolinguistics, psychology and social theory, have supplied conceptual tools, empirical findings and research designs. In terms of theoretical as well as methodological sources, interpreting studies is therefore highly diverse, hence the identification of several distinct paradigms with the labels of interpretive theory, cognitive processing, neurolinguistics, target-oriented text production, and dialogic discourse-based interaction (Pöchhacker 2004: 68–79).

Models and methods

The various ways of seeing, shaped by different disciplinary backgrounds and orientations, give rise to more detailed accounts of the phenomenon in the form of models, which seek to represent the phenomenon in terms of the type and number of its components and their relationships. And it is with regard to the diversity of models that the true complexity of interpreting as an object of study is most clearly revealed. For the fact that interpreting can and has been modeled in a number of entirely different conceptual dimensions, from networks of neurons to societies in contact (see Pöchhacker 2004: 86), shows that it is also the multi-faceted nature of the object itself that engenders alternative conceptualizations. Thus, even with a consensus within the interpreting studies community as a disciplinary matrix – a consensus regarding the nature of the object of study – there can and will be a range of distinct models with different conceptual points of reference. By definition, then, interpreting can be seen as a function between socio-cultural entities *and* a distinct professional profile *and* a service rendered in an institutional context *and* a set of interactional behaviors *and* a text comprehension and production task *and* a cognitive processing skill *and* a unique pattern of neurophysiological activity, and as such it eludes any single or uniform research model. Rather, as suggested by the various conceptual reference points, it is open to and indeed calls for a range of distinct theoretical and methodological approaches. By way of example, consider archival research on interpreting

practices in history, standardized testing of would-be professionals, the recording and analysis of mediated interactions, or the use of cerebral imaging technology on interpreters. While not immediately compatible, these and other forms of research are all apt to increase our understanding of particular facets of interpreting and will, hopefully, add up to show a, if not *the*, bigger picture.

The set of monographs used as a point of departure for this sketch of the state of the art goes some way toward this goal. However diverse the main concepts, models and methods used by these authors, and even their interdisciplinary alignments (with such fields as cognitive psychology, discourse analysis, education, forensic linguistics, language testing, and sociolinguistics), their research is designed to contribute first and foremost to our understanding of the phenomenon of interpreting. These contributions therefore share what Gile (2001: 151) calls an "identity marker" that indicates their "belonging" to the discipline. What is more, the scholars themselves would likely give interpreting studies as their academic affiliation, pledging allegiance, as it were, to the same disciplinary matrix. This has been argued above for a number of features defining a paradigm, but not yet with regard to the more fundamental assumptions concerning what kind of science, or approach to the creation of knowledge, an interpreting researcher is practicing.

Epistemology

With diversity as a challenge to its unity as well as an opportunity for growth, interpreting studies clearly needs solid foundations. And yet, its theoretical underpinnings have not been laid down as carefully as might be desired. The issue to be addressed more explicitly, I suggest, is interpreting researchers' philosophical position with regard to ontology and epistemology, and I will attempt to do so by reviewing some basic controversial choices.

Science vs. speculation

A defining moment, or turning point, in the short history of interpreting studies was the 1986 Trieste Symposium and its aftermath, when the influential 'Paris School' around Seleskovitch at the École Supérieure d'Interprètes et de Traducteurs (ESIT), which had given the field its first doctoral research program in the 1970s, saw its work challenged as "unscientific", in particular by fellow Parisian Daniel Gile (1990). Though questions of personality seem to have played a role, the standard by which Seleskovitch and her associates were being measured was that of empirical research, presumably as represented by the psychologists

who had left their imprint on the field in the early 1970s. While giving credit to Seleskovitch for her eminently practical "ideas (or 'theories')", Gile took issue with the lack of rigor and logical precision in some of the research done at ESIT.

The distinction between scientific research and "speculative theorizing" was expressed even more pointedly by Barbara Moser-Mercer (1994), who saw the conference interpreting research community as divided into two largely incompatible paradigms – the "liberal arts community" and the "natural science paradigm". Significantly, the distinction was drawn in terms of features such as logical precision and quantification rather than underlying philosophical issues, including the classification of scientific disciplines and their epistemological foundations.

Human science

Moser-Mercer's (1994) dichotomy is clearly reminiscent of the broad distinction, made by the German scholar Wilhelm Dilthey in the nineteenth century, between the natural sciences and *Geisteswissenschaften*, translated as "human sciences" (Dilthey 1991). Dilthey, whose scholarly background included history, psychology, sociology as well as philosophy, made this distinction with regard to the essential difference in the objects of study – that is, matter, on the one hand, and mind, on the other. More precisely, he saw the aim of the natural sciences in *explaining* phenomena of the natural world in terms of causes and effects, and that of the human sciences in *understanding*, interpreting the relationship between the part and the whole. Hence the inspiration drawn by Dilthey from Friedrich Schleichermacher's work on hermeneutics, or interpretive inquiry.

In proposing an alternative model of inquiry for the human sciences that would be equally 'scientific', in the broader sense of knowledge creation, Dilthey (1883) reacted against a rigorous conception of sociology in his day, notably the natural-scientific methodology of Auguste Comte, the founder of positivism. Positivism was itself an attempt to go beyond a rationalist approach to gaining knowledge, based on reasoning without solid "evidence", or observed facts. As the main philosophical underpinning of the modern idea of the scientific method, positivism assumes that genuine knowledge can be gained only on the basis of sensory experience, that is, by *empirical* means rather than argumentation. It is important to note that Dilthey's idea of gaining knowledge also centered on human experience but foregrounded the role of the understanding individual (the 'interpreter') embedded in a particular social and historical context. In this sense, both the researcher adhering to positivist principles and the scholar adopting a hermeneutic, or interpretive, approach interact through sensory experience with

their object of inquiry, such as a text produced by an interpreter, in our specialized sense of the word. The difference lies in the role attributed to the human agent: Whereas the traditional conception of empirical research seeks to abstract away from the socio-historical context and avoid personal "bias", human science as conceived by Dilthey has the interpreting individual at the center of the process of inquiry. In other words, the human agent in the "scientific method" is a source of bias and interference in the relationship between "observed facts" and their interpretation ('theory'), necessitating appropriate procedures to ensure "objectivity"; in the interpretive approach, in contrast, the subjective contribution is accepted as inherent in the process of understanding or even constitutes the focus of inquiry, though such inquiry is equally based on systematic procedures.

For all the revealing parallels (human sensory experience, applying a principled procedure) and differences (objective facts vs. subjective interpretation), juxtaposing the natural and human sciences in the tradition of Dilthey is not without problems. Dilthey himself was faced with the question of disciplinary labels, including such alternatives as "social science" (*Gesellschaftswissenschaft*) and "cultural studies" (*Kulturwissenschaften*) (1883: 6). Given the dynamic development of similarly designated disciplines in the twentieth century, the dichotomy has been superseded, with the social sciences playing a particularly significant role in the recent history of science. By the same token, the contrast between a positivist and an interpretive epistemology is of course an oversimplification. Various philosophical schools of thought have emerged to question and go beyond these two epistemological positions informing theories of science.

Construction

Of particular significance in the twentieth-century theory of science – and of considerable influence in translation studies (see Chesterman 1997) – is Karl Popper's (1934, 1962) falsificationist approach, which questions positivist scientific method as the route to proven knowledge and settles for a method of trial and error in which tentative theories (conjectures) are subjected to rigorous testing on the assumption that they may be empirically refuted. According to his *critical rationalism*, scientific theories, and human knowledge in general, are necessarily hypothetical and tentative constructions, so no amount of hypothesis testing can ever achieve ultimate verification. Hence the crucial role of falsification in the scientific process of refining theories. Rather than being true, the preferred theory is merely the conjecture that best accounts for the data, or "facts".

More radical still in its relativist view of science is *constructivism*, a theory of knowledge that gained ground in the 1960s (e.g., Berger and Luckmann 1966)

and has been a transformative force in such fields as sociology (social constructionism), psychology and education (Kukla 2000). The fundamental assumption of constructivist epistemology is that there is no single reality; rather, reality exists only as represented by human thought, and all knowledge about it is necessarily a human construction. Beyond the most radical form of constructivism, in which knowledge comes down to a process within a single human brain, social constructivism allows for a sharing of meanings and knowledge and thus a process of co-construction of knowledge and reality by social relationships and interactions.

Real vs. relative

As indicated above, the philosophical question of how knowledge can be gained about "reality" depends on the more fundamental philosophical issue of the nature and existence of such a reality (i.e., ontology). The most basic distinction here is between realism – the objectivistic belief that there is a real world "out there", independent of the human observer – and relativism, which assumes that there is no external reality independent of the human mind. These basic ontological positions imply, respectively, that researchers have access to separate objects whose properties are independent of the observer, or that access to 'reality' is invariably mediated through human thought and hence a construction. Most significantly with respect to scientific endeavor, a *relativist* ontology would ultimately not regard scientific knowledge as privileged over other forms of finding out about the "true nature" of things. Stopping short of either extreme, researchers may adopt a *pragmatic*, third position that goes back to American scholars such as Peirce and William James. Pragmatism assumes that the meaning or truth of something is a function of its practical outcome ("truth is what works"). As summarized by Robson (2005: 43) with regard to scientific inquiry, pragmatists accept multiple realities and will use any philosophical and methodological approach that works best for a given research problem.

Identity

While the above sketch of major positions in ontology and epistemology and the theory of science merely scratches the surface of what might be useful to discuss, it should suffice to demonstrate the distinct philosophical perspectives on the nature of knowledge and scientific inquiry. Thanks to the undeniable success of the classic scientific method in enabling the many advances of modern civilization, the original idea of positivist empirical science, based on the carefully planned

collection of data (samples) through observation and experimentation in a basic process of formulating and testing deductively derived hypotheses, remains highly influential in many branches of scientific study, including translation studies (Orozco 2004). Still, most researchers would now at least view their stance as post-positivistic, allowing to some degree that facts are theory-laden and that the researcher's background and values are likely to shape the process of inquiry. The present section is designed to examine the position of interpreting researchers, or interpreting studies as a discipline, with respect to the epistemological orientations reviewed above.

Empirical-interpretive

As an object of study, interpreting is a human activity open to sensory experience. Interpreters can be observed, and their "output" recorded and analyzed, whether in a laboratory setting or a real-life communicative event. Interpreting studies as a field of research can therefore be classified, based on the nature of its object of study, as an *empirical* discipline, resorting to the systematic collection of data about the phenomenon of interest. At the same time, the activity as such as well as its scientific study are based on understanding, on making sense of linguistically expressed meanings. In this regard, interpreting studies can be seen as a paradigm case of the human sciences, in Dilthey's sense. This duality is brought out even more clearly when interpreting is conceptualized as a process of communicative interaction in a real-life context and thus a situated social practice, which would strongly suggest adopting a sociological perspective on the phenomenon of interpreting (see Pöchhacker 2006). Once interpreting research is placed in the context of the *social sciences* in the broader sense, or sociology in particular, it is easy to accept that there should be different and equally appropriate approaches to social inquiry, from quantification in search of behavioral regularities in a defined population to describing the subjective outlook and perception of a given individual in a certain context. After all, both nomothetic explanation, which aims at a generalized understanding, and idiographic explanation, which seeks to describe a given case as fully as possible, are equally valid purposes of inquiry in the social sciences (see Babbie 1999), and both are of course based on empirical data.

The data typically encountered in interpreting research are of the non-numerical kind, as opposed to phenomena whose attributes can be captured directly in terms of numbers, such as temperature measurements in an interpreting booth (e.g., AIIC 2002) or a media interpreter's heart rate (Kurz 2002). Quite aside from the fundamental issue that data, of any kind, are not there as a "given", but ultimately "taken" by the empirical researcher with a particular idea (theory)

and purpose in mind (Chesterman and Arrojo 2000), the prevalence of non-numerical, *qualitative* data in interpreting studies, usually in the form of text or discourse, places interpretive inquiry at the center of the scientific method in interpreting research.

Given the many facets of the object of study, the hermeneutic process of making sense of speech or verbal protocols in interpreting research can take a broad range of forms. Jesús Sanz (1930), for instance, processed oral and written responses to interview questions; Henri Barik (1975) classified interpreted texts in terms of omissions, additions and substitutions; Jennifer Mackintosh (1983) had assessors score the information content in relay interpretations; Dennis Cokely (1992) examined miscues in signed language interpreters' renditions; Wadensjö (1998) identified shifts of footing in transcriptions of mediated institutional talk; and Pöllabauer (2007) similarly examined transcribed asylum interviews for face-saving strategies. Some of these authors, who are singled out here only for illustrative purposes, were mainly interested in transforming verbal data into numbers (Barik, Mackintosh, Cokely) whereas others (Sanz, Wadensjö, Pöllabauer) were not interested in quantification and drew their conclusions from their understanding of the qualitative data. The point here is that all these scholars worked with essentially qualitative empirical data, some generated in experiments and others collected in fieldwork conditions, and that all these researchers were thus forced to apply an interpretive process of inquiry in one form or another. With regard to the type of data used and the procedures applied to gain a better understanding of its object of study, interpreting studies could therefore be characterized as an empirical-interpretive discipline. Regardless of its ontological assumptions, it would have to allow for some hermeneutic process in interacting with its object of study, as supported by a constructivist epistemology.

Shared ground

The characterization of interpreting studies as an empirical-interpretive discipline closely aligned with research practices in the social sciences, and the human sciences as envisaged by Dilthey (see also García-Landa 1995), fits well with what was formulated, from different philosophical perspectives, by Chesterman and Arrojo (2000) as "shared ground in translation studies". In particular, both scholars, one an outspoken Popperian and the other with a background in post-modern cultural studies, agree that any act of translation is intrinsically different and unique and that at the same time human behavior is likely to manifest some similarities and observable patterns (2000: 154f). Underscoring their respective positions they state that "all descriptive research is based on some kind of

conceptual analysis" (2000: 156); that "the subject who 'understands a phenomenon' is inevitably implicated in such an understanding" (2000: 158); and that what counts as "empirical evidence" will be perceived differently depending on the analyst's theoretical viewpoint (2000: 159). Clearly, then, interpreting studies as a sub-discipline within the wider field of translation studies reflects the basic epistemological tensions that can be felt in the discipline as a whole (and in the scientific community at large). As long as these currents are felt to be at work *within* the discipline as a whole, the foundation of the disciplinary matrix is in place, even though it may be subject to gradual shifts.

Admittedly, striving for a consensus among all areas of research on translation, from, say, postcolonial critique to corpus-linguistic analysis, is a rather ambitious undertaking, and there are some who doubt the need for such harmonization. One such viewpoint, by Brian Mossop (2001), is of special interest with regard to interpreting studies. Though skeptical about the value of some underlying philosophical agreement across the wider discipline, Mossop speaks out in favor of "common ground" for the field of interpreting studies:

> If common ground is to be sought, I would rather look for it among studies corresponding to the various translating occupations. It would be unfortunate if studies of simultaneous interpretation, community dialogue interpreting and so forth all went their separate institutional ways. (Mossop 2001: 159)

Against the backdrop of the diversity identified earlier in this essay, this statement can serve to corroborate the value of reaffirming the nature and identity of interpreting studies as such, giving priority to the search for shared ground within the subdiscipline before linking up with the broader discourse in translation studies as a whole. This is also advisable when it comes to the methodology of the field, as discussed in the following section.

Methodology

As much as one should seek to be aware of its epistemological foundation, the study of interpreting is ultimately not a matter of philosophy or theory of science, but of *doing* science by asking research questions and answering them by adopting an appropriate method of inquiry. As with the underlying philosophical issues, there is no single, uniform approach to inquiry in terms of research method. Rather, a number of distinctions can be made to classify various methodological perspectives, for instance with regard to the nature of data (i.e., quantitative vs. qualitative) or to the interplay between theory and data in the process of inquiry.

Theory and data

Rather than pitting "theorizing" against empirical research, as done in upholding the distinction between the liberal arts and empirical science paradigms, or "LAP" vs. "ESP" (Gile 2009), it is clear from the consensual position expressed by Chesterman that all descriptive (empirical) research is necessarily based on some form of conceptual analysis (Chesterman and Arrojo 2000: 156). The scope of theoretical analysis in a given research project may of course vary: Tackling the crucial notion of quality in interpreting, for instance, may require a scholarly study in its own right (Grbić 2008), whereas a survey to establish the ratio of male versus female interpreters would seem to pose few conceptual challenges (and yet may raise the issue of sex versus gender and transsexual identities). The extent of theoretical engagement may also depend on the researcher's personal intellectual preferences and academic socialization, but the mutual interdependence between theory and empirical data should never be in doubt.

Based on this assumption, a relevant distinction regarding the interplay of theory and data can be made in terms of the type and direction of logical reasoning used in developing a fuller understanding, or "better theory" of the phenomenon. Inductive reasoning, in which specific observations are made in search of patterns that can lead to tentative explanatory hypotheses, would be associated with the original approach to empirical science as practiced by Isaac Newton. Since the nineteenth century, however, thanks to the work of Charles Sanders Peirce and subsequently Popper's critical rationalism, the scientific method has mostly been equated with hypothetico-deductivism, in which hypotheses are formulated on the basis of existing theory and then tested against empirical data. It was this theory-based deductive process of inquiry, which necessarily imposes predefined categories on the phenomena to be investigated, that gave rise to an alternative approach in the 1960s. Closely linked with the work of Glaser and Strauss (1967), this style of inquiry moves inductively from data to theory by understanding and comparing individual observations and building theory from data. This so-called "grounded-theory approach," which is by its very nature more exploratory and tentative than conventional hypothesis testing, is also particularly open to *abductive* inferencing, introduced by Peirce (1898) as an intuitive form of reasoning prior to deduction and induction.

Notwithstanding the usefulness of distinguishing between deductive and inductive (and abductive) inquiry, it is widely agreed that the two approaches are not mutually exclusive, and that the deductive move from theory to data via the formulation of necessary inferences is complemented by the inductive formulation of probable inferences from the data, and vice versa, in an ultimately cyclical process of generating and testing hypotheses. There do exist, however, "strong

versions" of either approach that can be perceived as incompatible paradigms of research (and there are two opposing frameworks even within the practice of grounded theory). Such a strict distinction has been made between the quantitative and the qualitative paradigm of inquiry.

Quantitative vs. qualitative

In the course of the late twentieth century, research approaches subsumed under the heading of *qualitative research* asserted themselves in a variety of disciplines seeking to understand human behavior (see Denzin and Lincoln 2000). Much would therefore need to be said about this type of inquiry, were it not for the fact that some of its central assumptions have been covered in earlier parts of this essay. Considering the focus on qualitative data, the broadly constructivist, interpretive epistemology, and the often inductive approach to theory building, qualitative research can be seen as rooted in the idea of human science, as opposed to the positivist conception of empirical research.

Given their distinct epistemologies, quantitative and qualitative research can be regarded as incompatible worldviews, or paradigms in the original Kuhnian sense (Creswell 1994). Assuming, however, that most scientists would no longer embrace a strictly positivist theory of knowledge, the need to view qualitative research in radical opposition to the quantitative hypothetico-deductive type becomes less pronounced. Indeed, the focus of methodological debate has been moving on beyond the 'paradigm wars' also in the social sciences toward exploring common ground and compatibilities (Reichardt and Rallis 1994). Under the heading of "mixed methods" (Creswell and Plano Clark 2007; Tashakkori and Teddlie 2003), various types of multi-method research have been explored. What is more, the combination of qualitative and quantitative approaches to inquiry, foregrounding the role of triangulation of data, models and methods, has been construed as a third way, or paradigm, in its own right, often underpinned by a pragmatist epistemology.

These paradigmatic developments in the social and behavioral sciences are of great relevance to a field like interpreting studies, considering its diversity of conceptual frameworks and empirical data. In the following section I will therefore turn to a more application-oriented overview of methodological choices, on the understanding that more than one option may be appropriate for a given project.

Multiple methods

One of the things that have changed drastically since interpreting first became an object of doctoral-level research, alongside the diversification of settings and modalities under study, is the wide array of methodological choices. Beyond the traditional distinction of empirical research as either observational or experimental (Gile 1998), approaches to inquiry can be categorized in many ways, and at different levels. In Pöchhacker (2004: 63f), I suggested a three-fold distinction of overall approaches or *strategies* – namely, "fieldwork", survey, and experiments – in combination with a set of methods or *techniques* for data collection and analysis. A fieldwork approach consists in collecting data on people or occurrences in their real-life context, often by studying a single "case", which may be an institution, an event or indeed an individual person. A survey strategy, in contrast, aims at broader coverage and therefore seeks to collect data in some standardized form from a larger number of sources. Experimental research, finally, consists in measuring the effects of a particular variable or set of variables on one or more "dependent" variables. Numerous subforms and variations of these major strategic approaches exist, and many research designs do not fall clearly into one category or another. Simulation, for instance, may be regarded as in-between experimental research and fieldwork when it manipulates the relevant independent variables while creating a quasi-authentic communicative environment. Examples include the study by Cambridge (1999) on the accuracy of interpreting in doctor-patient interviews and Russell's (2002) mock trials to test the effectiveness of American Sign Language/English interpreting provided in the consecutive versus the simultaneous mode in a courtroom setting. Another unique approach with great potential for interpreting studies is action research, an often qualitative and inherently participatory type of inquiry by "practitioners". Such research is designed to study the effect of a particular intervention (action) on a social practice, such as a change in institutional interpreting arrangements or the introduction of a new teaching technique.

Within a given strategic orientation, researchers may resort to various methods for collecting different types of data. For interpreting, the three basic techniques can be summarized as "watch", "ask" and "record", each of which subsumes a variety of different manifestations. Observational methods range from informal participant observation to highly structured observation with the help of coding schemes. Questions can be asked in many forms and media, from unstructured or semi-structured personal or telephone interviews to standardized self-administered questionnaires comprised of open-ended or closed-format items (multiple-choice, rating, ranking etc.), and from paper-and-pencil instruments to web-based surveys. And documentary material, often derived from

technology-supported forms of observation such as audio or video recordings, may be used to build single-case or massive machine-readable corpora.

Across the different techniques, the empirical data collected are often of a qualitative nature – from field notes, interview responses and answers to open-ended survey items to transcriptions of discourse and video recordings of communicative events. Data-collection methods are therefore only a first step, the result of which must be submitted to some form of systematic analysis. Depending on the type of approach, the relation between data gathering and analysis can be serial or concurrent. Invariably, though, the analytical procedure, which may range from the numerical or verbal coding of responses to more argumentative types of discourse analysis, will be based on some form of interpretation, in the hermeneutic sense, with reference to a certain conceptual model or theoretical framework.

Interpreting researchers can thus choose from a broad repertoire of methodological options. For many a project, a single strategic approach and data-collection technique may be quite appropriate. Examples include questionnaire-based surveys and SI experiments with audio-recorded source and target speeches, which are amply represented in the interpreting studies literature. Robson (2005) refers to these as "fixed designs", emphasizing that these strategies are characterized not only by their focus on quantification but especially by the need for rigorous pre-specification before the data-collection stage. Flexible designs, in contrast, may evolve during the research process, including the option of adding new methodical components. At any rate, these two orientations – quantification-oriented fixed designs and typically qualitative flexible designs – can be combined in various ways. In its more traditional form, this is done when exploratory interviews are conducted to generate questions and categories for the construction of standardized survey instruments. Major examples in interpreting research include the AIIC-sponsored studies by Cooper et al. (1982) and Moser (1996), both of which were conducted by professional social scientists.

The research strategy for which multi-method or mixed designs are particularly attractive and powerful are case studies in a fieldwork setting, and the recent literature in interpreting studies contains a number of good examples. With a focus on conference interpreting, Diriker (2004) investigated norms in a technical conference with SI (Turkish/English, some French) by analyzing both recorded conference discourse and interviews with stakeholders as well as triangulating the case-based data with findings for the broader context derived from an examination of the public discourse on interpreting in the media and in the documents of interpreters' professional organizations. By the same token, a more recent project on court interpreting in Denmark (Christensen 2008; Martinsen and Dubslaff 2010) combines case-based observations (including audio recordings

for subsequent discourse analysis), document analysis (procedural guidelines) and questionnaires addressed to participants (legal professionals, non-Danish-speaking parties, interpreters). Another well-known multi-method study in this setting is of course the study by Hale (2004), who conducted a quantitative analysis of English courtroom questions and their interpretation into Spanish in more than a dozen audio-recorded Local Court hearings and, aside from ample discussion of the qualitative data, went on to use her authentic material in controlled matched-guise experiments testing the impact of interpreters' rendition styles on the assessment, by student raters, of Spanish-speaking witnesses' competence, credibility and intelligence.

In the area of healthcare interpreting, the work of Angelelli (2004a), published in the same year as the studies by Diriker and Hale, is another fine illustration of combined methodologies within a larger project, or by the same researcher. Angelelli's (2004b) questionnaire-based survey on role across North-American countries and professional domains included (quantitative) data from medical interpreters, and medical interpreters were also at the center of her ethnographic case study in a California hospital published separately that same year.

On a more specific level, survey data, both quantitative and qualitative, have also been incorporated into primarily experimental designs, often by using preliminary questionnaires or debriefing interviews to complement the scoring of recorded (source- and target-speech) 'protocols'. Going further still, experimental research on SI in both the signed and spoken modalities has used not only the recorded source- and target-language materials but also, or even mainly, introspective data elicited in post-task stimulated-recall interviews with the participants. Examples include Napier's (2004) study on Auslan/English interpreters' omissions and the work of Chang and Schallert (2007) on directionality in Chinese/English SI. The latter study, with ten professional interpreters, is a particularly interesting case of multi-method approach. It comprises both a substantial quantitative component, using propositional analysis of semantic content as well as linguistic error analysis (subjected to inferential statistical testing), and a qualitative, grounded-theory-style component in which open, axial and selective coding of the retrospective protocols was used to build a theoretical model of directionality in Chinese/English SI. Thus, in the absence of a specific hypothesis regarding strategy use in different directional modes, the experimentally generated data were used inductively to generate concepts and hypotheses. Even so, the study also yielded evidence that higher input speed (130 vs. 100 wpm) was associated with more errors and omissions, confirming, almost in passing, the findings from Gerver's (1969) classic experiment on this topic.

As pointed out by Gile (1998), experimental research on interpreting, widely practiced in the post-Trieste era of interpreting studies, is fraught with many

serious problems, including the recruitment of suitable participants and the feasibility of randomized controlled designs in the face of high individual variability and, when an approximation to real-life conditions is desired, a complex interplay of variables. The adoption of mixed-method designs in a more descriptive than explanatory orientation may therefore be a promising way forward for experimental research on interpreting. While this might be considered insufficiently rigorous by hardcore experimentalists, it would be in line with recent methodological trends toward a "third way", in which objectivistic aspirations are fused with interpretive enrichment. Most importantly, mixing methods, in the paradigmatic sense, and thereby, to some extent, blending epistemological orientations and research traditions would seem to suggest itself as the policy of choice for a field with as complex and multi-faceted an object of study and as great a diversity of conceptual approaches as interpreting studies.

Conclusion

In this essay on the theoretical and methodological foundations of interpreting research I have journeyed from a look at the diversity of research output, as exemplified by the *annus mirabilis* of 2004, to the fundamental philosophical issues of ontology and epistemology and back to concrete examples of (multi-method) research. This may parallel the trajectory of members of our research community who, at some point, may have reason to dig deeper than their actual research interests and reflect on key questions in the philosophy of science, ultimately drawing strength and theoretical justification for their specific methodological choices. I have suggested that interpreting studies as a reasonably cohesive and relatively young and small scientific community can be conceived of as a human (rather than natural) science with special affinity to social science paradigms, and that its object of inquiry and the multiple sense-making procedures involved in studying it should make it particularly susceptible to a constructivist epistemology that combines an engagement with empirical data with interpretive procedures that are necessarily relative to situational contexts, settings and socio-cultural backgrounds. Whether they adopt a pragmatic or other ontological stance, researchers in this empirical-interpretive discipline can fruitfully avail themselves of a wide array of research designs and methods, including multiple and mixed-methods approaches, that help them do justice to the diversity of their fascinating object of study.

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Designing a research project

Beginning with the end in mind

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Beginning a research project can be both daunting and exciting for all researchers, whether experienced or novice. This chapter highlights the crucial stage of creating a research project from a well-developed research question and appropriate methodology that best addresses the question. This beginning stage has a significant impact on the overall study, including the soundness of the results. This chapter explores strategies for conceiving of, and designing, a research project that can both be achievable and contribute to scholarship. This chapter draws on examples from two of the author's own studies of interpreting in educational and legal settings, to more closely examine the many considerations required for an effective research project.

Introduction

The field of interpretation studies is continually strengthened by evidence-based practices and a burgeoning research agenda. As interpreters engage in further academic study, we see researchers of all levels of experience, from student to novice to senior, exploring areas of significance and contributing to a body of evidence that is shaping our profession. No matter what the experience level of the researcher, each must begin his or her work with a well-developed research question or questions. This initial stage forms the foundation of the project and has significant impact on the overall study. Well-formed research questions help to shape both the processes used and the results gleaned.

This chapter explores how a researcher creates effective research questions to craft a well-designed study that contributes to our scholarship. It draws on two research projects that I have undertaken, one examining simultaneous and consecutive interpreting in legal contexts, the other exploring the impact of

interpreting in educational contexts for deaf and hard of hearing children in the elementary to high school years. By linking examples from practice, we will review the key strategies to be considered when planning research projects, and specific approaches to honing the questions within a context of available resources and individual skill sets.

Getting started

Often when students or new researchers think about starting a research project, they are intimidated or confused by the process; these feelings are typical at the initial stage of research. Developing good research questions is an essential first step of every project, because effective questions define the investigation, set the boundaries of the study, and provide direction (O'Leary 2004). Gile (2001) reminds us that beginning researchers often struggle with this step and many dissertations are abandoned because of an inability to select a topic.

The task at this stage is to determine the researcher's interests in relation to the many research problems that exist in our field, as well as accessibility to data, individuals who can support the research, databases, and research communities. Choosing a topic of great interest to you is key. The research process can be lengthy, so finding something you are passionate about will see you through to the project's end.

To begin a research project, ask yourself these four questions: What specific issue or controversy do I need to address? Why is this problem important? How will my study add to what we already know? Who will benefit from what I learn? These questions can lead to the development of a research problem that will allow the researcher to identify specific questions (Creswell 2005).

When seeking research questions, novice researchers may tend to be overly ambitious and form very large projects. As novices, they may not even realize that what they are asking is too large or broad. At the outset of a research career, restricting the topic to a specific focus that can be thoroughly researched and provide meaningful insight into the area of study can be more helpful than exploring a diffuse area superficially. Separating the research problem from other aspects of the process is important; the problem will help you to identify the general issue, concern, or controversy, and then to narrow the topic. The research topic is the broad subject addressed in the study. In quantitative, qualitative or mixed design studies, research questions narrow the intent or purpose into specific questions that the researcher would like answered or addressed. To get to specific questions, first identify a broad topic and then work to narrow it.

In my own work, I began my doctoral research with the broad area of legal interpreting. I identified the research problem as Deaf[1] people being unable to access the justice system because of ineffective interpretation. That led me to define the purpose of the study: to develop a greater understanding of the accuracy of interpreting provided to Deaf participants, lawyers and judges in the context of courtroom events. Exploring and comparing forms of interpretation could inform practice directed at providing accurate interpreting services, and address gaps in systemic research about consecutive and simultaneous signed language interpreting in legal contexts.

The next step was to define my research questions, one of which was to compare the accuracy and effectiveness of consecutive and simultaneous interpreting used by ASL-English interpreters providing interpretation for direct evidence with a Deaf witness. Defining terms such as effectiveness and accuracy brought further clarity to the questions. In the end, I had multiple research questions, giving me the focus to more fully explore the topic. As studies are designed and conducted, an understanding of the distinctions between topic areas and research questions allows us to articulate our research questions with greater clarity.

So where do we start identifying a research problem that can lead to research questions? In the next section, we will explore the many sources of inspiration in more depth. You might begin by noting questions that have arisen as you explored areas within your program of study. Or, in your daily practice as an interpreter, what are you curious about? What claims have you heard that you questioned? Keep a journal throughout your studies and your interpreting practice; capture ideas from inspiring presentations, from provocative conversations with practitioners and consumers, or from your search for solutions to interpreting problems. You might also find ideas in vlogs or blogs; something that you disagree with might lead you on a path of inquiry.

Finally, as this chapter explores research questions, take note that just because a problem or issue exists does not mean that the researcher can or should investigate it. A problem can be researched if you have access to participants and research sites, as well as the time, resources and skills to conduct the study effectively (Creswell 2005). For many new researchers, the issue of time commitments is an integral part of this pre-planning stage. Looking at your time realistically may also help you to form manageable questions and complete the research process within timelines that work for you. As well, if you are a first-time student researcher,

1. Throughout this chapter, the convention of capitalizing Deaf to distinguish members of a cultural and linguistic group has been used. Lowercase deaf is used to indicate a larger group of people who may or may not be members of the Deaf community, their language or culture not made explicit (for example, deaf students, deaf consumers of interpreting services) (Russell 2002).

you will need to gauge the appropriateness of the topic with your skill sets and your ability to get supervisory support and funding commitments. Also consider whether you are linguistically and culturally competent for the task. For example, if you plan to conduct interviews with Deaf informants, are you able to do so directly and comfortably? Will the research participants share information with you, or will they be reluctant because of hearing status, historic power relations between majority and non-majority community members, and/or cultural and linguistic knowledge? Next, we consider sources of inspiration to help you define your topic and ultimately put you on the path to identifying your research questions.

Seeking inspiration

The first step in devising a research question is to read widely about a topic that is specific enough for you to acquire and digest information in the time frame you have as a researcher. In this age of technology, generating evidence-based literature reviews to inform your area of interest is relatively easy. When looking at background information, search and read widely and then narrow your search. This reading will help you to identify the research problem of greatest interest, and to justify your study with evidence from the literature and from practical experiences. At this stage, you must become a critical consumer of the literature; not all published research is methodologically sound, so you will need a framework for critiquing the strengths and limitations of the studies. It has been said that you may classify studies into four approaches: (1) good research, methodologically sound, and well reported; (2) good research, methodologically sound, and poorly reported; (3) poor research, methodologically flawed, and well reported; and (4) poor research, methodologically flawed, and poorly reported (Russell 2008). Understand the studies from the standpoint of both contributions and limitations.

From this review of the literature, you may be able to identify gaps in the research that relate to the topic and research problem. In my case, I could not identify studies on the use of consecutive interpreting that were conducted with ASL-English interpreters. You may also find other reports that address the practical need and justification for your study, for example, newspaper articles or media reports. In my study, I located various media reports on how inaccurate interpretation has resulted in mistrials, which spoke to the practical need for a study. As you read, ask questions about the content, and make note of questions that especially interest you. In this body of evidence, what is missing, or what do we need to know more about? Record these questions in written or voice/signed notes. One option for making quick summaries and observations is to use a tool like TokBox (www.tokbox.com): record a spoken or signed message and e-mail it to

yourself and others who can comment on your emerging questions and refer you to other information sources.

Review the studies, sifting through them for quality, relevance, soundness and limitations. Track the information and organize your notes carefully. Tracking references by using tools such as EndNote or RefWorks can save time when building your literature review, as you will have the citations ready. Keep a record of all interesting sources, documents, ideas, and questions. Even if something is marginally helpful or interesting, write it down in a dedicated notebook or use a web equivalent like a wiki, as you may not encounter it again. Lastly, note how addressing this problem will help interpreters, educators, researchers, policy makers, and others. By commenting on this element, you will start to think about the potential readers of your study and why this research would matter to them.

The review of the literature will provide you with a foundation upon which to separate the research topic from the problem and allow you to document the evidence justifying the problem. You will then be ready to create research questions, which further define the focus of your research. For example, suppose I were to ask, "What is the relationship between interpreting quality and access to the judicial system for Deaf consumers?" This question is too broad and does not differentiate my specific area of interest, nor does it put limits on the research project. Instead, I could ask, "What is the impact of using simultaneous interpreting on the accuracy and effectiveness of Deaf witness testimony?" This is more specific. A well-articulated research question provides you and your readers with critical information by defining the focus of your research, its scope, and your motivation (Cronon n.d.).

Cronon (n.d.) emphasizes that a research question can set boundaries to help you chart your next steps, since the question defines which data you need to collect and which methods you will use to access and analyze your data. As an example, take the interpreting question in the previous paragraph. By narrowing my question to the relationship between the form of interpretation, simultaneous in this instance, and the accuracy and effectiveness of interpretation for a Deaf witness, I also narrow the scope of data collection and analysis. I can then focus my literature search on courtroom interpreting and a specified form of interpretation, or conduct observations of ASL-English interpreters working with Deaf witnesses in court settings.

As you read widely about your topic, your research interests and initial questions are likely to change in significant ways. Forming the right question(s) is an iterative process (O'Leary 2004), in which questions become sharper the more time you spend reading the literature and conversing with those who are guiding your development as a new researcher. O'Leary (2004) describes this process as one that is informed by reading and *doing* at all stages. You start with a broad

topic of interest and then take steps to investigate your questions further. By exploring the literature, you find new ways of understanding your topic, which may lead to tighter research questions. Consider these tips at this stage:

Review past research projects that you have completed. What topics are you already interested in? What new topics can you generate from the older research? Could you replicate a past study by examining different participants and different research sites, or refining a previous study in light of new research?

List your interests, and then rank them to identify the top two areas compelling enough to sustain your interest over the life cycle of the research.

Produce a concept map that can lead to a question, for example, educational interpreting – interpreters – teachers – students – parents – quality – standards – policies – friends and social – school success; all of these concepts helped sharpen my question and led me to explore relationships across topics. Mapping the concepts in a graphic form to represent how a subject is viewed may illustrate how current knowledge is organized by the individual(s) performing the exercise. Or brainstorm with colleagues to generate potential aspects of a topic. This may help you to recognize where gaps exist in your knowledge and yield specific questions to guide your research.

Current events or timely issues can also stimulate promising research. For example, an earthquake in Italy can prompt questions about emergency preparedness and how Deaf citizens gain access to crucial information during such events. Attending professional development events and conferences is another great source of ideas. What presentations stood out for you? Were there topics that really challenged your thinking? Are other researchers doing work on topics of interest to you, and could you extend or replicate their studies?

Observe interpreting issues that arise in your work or from your observations of other interpreters' work. In my doctoral study, the research questions ultimately emerged from my work in legal settings and from questions and problems I had spent hours discussing with teams of interpreters in legal contexts. Try to observe the problem through fresh eyes to produce rich research questions.

Refining focus: From topics of interest to researchable questions

This section will explore moving from a topic area to defining research questions. As indicated in the previous section, working with the literature can be likened to following a trail of documents until you close in on the question that speaks to you. Raising questions at every stage of your reading will help you identify where to go next. For example, I am currently working on a national study of what Canadian deaf children experience academically and socially when accessing

education in environments mediated by interpretation. I approached this study from my professional interest as an elementary-level trained teacher and my personal experience as an interpreter doing some substitute interpreting in a junior/senior high school. I began reading about the movement to include children with disabilities in public schools and, by extension, to include deaf children with communication support via an interpreter. That led me to explore the literature specific to interpreting in educational settings, seeking an understanding of present evidence-based practices versus opinion literature. There was some evidence-based literature in North America, and there were gaps as well; however, very few research studies were being conducted in this area of Canada. The search also revealed that the perspectives or "voices" of deaf students and parents were not significantly included. Typically, studies were based on the views of interpreters or teachers and/or administrators. Some studies explored the work from the multiple perspectives of discourse and interpretation analysis (Ramsey 1997; Winston 2004), complemented by the "voices" of parents, teachers, interpreters, administrators and, where appropriate, students. I was intrigued by the notion that teachers use language in very purposeful ways (Cazden 2001), and I wondered how well interpreters were representing those discourse features within the complicated classroom environment. I was also interested in how the many stakeholders viewed aspects of mediated education. In the beginning, the research questions took the form of:

1. To what extent and in what ways does the use of signed language interpreting services influence the academic performance and social development of deaf students?
2. In what ways do classroom instruction and learning mediated by a signed language interpreter alter the choices teachers make about their use of language, instructional and questioning strategies, and patterns of interaction with deaf students?
3. What are the experiences and perceptions of deaf students, parents, interpreters, and teachers regarding the quality of interpreting services and their impact on the academic and social success of deaf students?

To explore the impact of interpreting services on the academic performance of deaf students, I wanted a framework for viewing the work that was based on discourse principles and explored the work in ways that were discussed in the literature (Roy 2000; Winston 2004). That led to further refinement of one of the questions: In what ways do interpreters represent the discourse of purposeful teacher language, specifically when teachers are asking meta-cognitive questions, using scaffolding approaches, sequencing information, offering feedback, employing reconceptualizing techniques, and incorporating reciprocal teaching among students (Cazden 2001)?

I was also interested in why many educational systems in several countries believe that placing an interpreter in a classroom provides an "equal" education for a deaf student. I wondered, "For whom and under what context" (McQuarrie and Parilla 2009) does an interpreted education work well? By engaging with scholarly literature and speaking with researchers and teaching colleagues in the field of education, I was able to identify questions that I believed had not been sufficiently studied within a Canadian environment. I was then able to situate the interpreting data within six common teaching language frames, and base the questions on the academic and social experiences as perceived by the four major stakeholder groups.

A researcher may use a number of different approaches for gathering literature. University library catalog keyword searches are a good starting place; however, be prepared to be shocked by the number of "hits" you receive. If you have too many hits, your search criteria are likely too broad; if too few, your criteria may be too narrow, or your subject may be groundbreaking. In the latter case, the topic may need to be reconsidered if there is not enough to read, analyze, critique or reformulate into your thesis (Winch et al. n.d). One of the most helpful resources in any university library is the librarian, who can help you refine your search approaches and suggest suitable resources, databases, and datasets.

In their 2008 book, *The Craft of Research*, Booth, Colomb, and Williams suggest that students undertaking research fill in a sentence such as the following, to refine their thinking: I am examining ____________ because I want to know ___________________ to help me/my readers understand ___________________. As you gather literature about your topic, look for divergent opinions and uncertainties. When reading, move beyond passively taking in the perspectives and findings of different authors. Rather, try to make the ideas your own – imagine having a conversation or debate with the authors. Determining what is not known about a research topic is also powerful; identifying gaps in the literature or knowledge base is an excellent way to generate research questions. Explore whether existing claims or conclusions should be reexamined in a current context, or whether scholars disagree about a subject.

One of the most helpful approaches is to engage in conversation with other researchers, interpreting colleagues, and students. Once I had immersed myself in the literature, I chose to discuss my understanding of the research problem and my emerging questions with others who could offer feedback and help me articulate my thinking. This also led to my colleagues suggesting useful readings and potential research questions. By soliciting professional critique, I had an opportunity to further refine the questions and my understanding of the topic's background, and to explore whether the findings would be considered significant and contribute to our scholarship.

Another important step is to place your research topic and subsequent questions within the context of other theories. Your topic may have already been studied using certain theoretical approaches, so do not be surprised if you come across literature with similar arguments and theoretical approaches. You are always free to position your topic in relation to other theories to produce new research questions and thus contribute to the literature. Booth et al. (2008) encourage researchers to explore the history of their topic, its structure and composition, and how it is categorized. For example, we can ask questions to better understand how our topic fits into a larger developmental context. How is it that our topic came into being? How and why has the topic changed over time? What theories have framed our topic? By exploring the internal history of our topic, we engage in a structured approach of applying critical thinking to enhance our knowledge.

When I started my legal interpreting study, I gleaned a great deal of knowledge from studies and primary sources in spoken language interpreting, which increased my understanding of the larger developmental context. The literature also helped me see how the field of signed language interpretation may have adopted and adapted approaches from spoken language research. We can further enhance our understanding by asking questions about how the topic fits into, or functions as part of, a larger system. For example, the literature cited that the shift to simultaneous interpreting for spoken language interpreters was linked to the advent of technological solutions, and that for signed language interpreters some significant differences existed. Because signed language interpreters work with two different language modalities, we can provide simultaneous interpreting without the need for technology. I then wanted to discern how the topic parts fit together as a system, which led me to understand some of the legislation that requires consecutive interpreting for non-English-speaking witnesses during direct testimony. Another aspect of viewing my topic from a systemic approach was to explore how we teach interpreting, and the values and beliefs of interpreters, consumers and educators. The systemic approach also led to questions that I used in my interview protocols with judges, lawyers, interpreters and deaf consumers, offering insight into the values and beliefs that shape the use of various forms of interpretation within the legal system. Lastly, it was important to see how the topic was categorized and compared with others like it. I sought to understand the differences between consecutive and simultaneous interpreting in performance issues, accuracy and effectiveness, and how their use with signed languages compared with spoken language interpreting.

As well, by reading academic literature from the spoken language field, I noted that many of the articles, chapters, and books ended with thoughtful research questions. As an experienced interpreter but a novice researcher, I found the insights of experienced researchers and their beliefs about required further study

to be very helpful. This was an opportunity to look at their questions, learn from their modeling, and ask other speculative questions, including those that might extend and support a claim with new evidence. Reading was also a stage to ask questions that reflected disagreement, as in the following example that applied to the educational interpreting study: The practice of inclusive education facilitates both academic and social learning among all students (Luckner and Muir 2001). This claim, which I had read in the literature, invited disagreement on the basis of my readings and experiences in our field. So I noted questions of disagreement, such as: But how does this happen for deaf students in inclusive settings? What elements are required for the Luckner and Muir statement to be true for deaf students? Is there a difference between academic and social experiences for deaf children in mediated educational environments?

Finally, as you refine your question(s), look for existing correlations between factors, and note areas from your initial reading that may be related. For example, in my initial research on educational interpreting, few studies had explored interpreting analysis from the perspective of how teachers use language. Instead, the studies addressed interpreting largely from a transmission model of words and signs, rather than a co-construction model of meaning that has the interpreter, teacher, and students working actively at creating understanding. This led me to look at the relationship between teacher language functions and how they are realized in classroom discourse, and then how discourse features are interpreted within the theoretical framework of skopostheorie (Reiss and Vermeer 1984). In my study of interpreting in legal contexts, I was unable to locate research that contrasted simultaneous and consecutive interpreting in three distinct discourse events: expert witness testimony, direct evidence, and cross-examination. This prompted me to construct my questions and data collection to explore the relationships between the interpretation form and the discourse event. By asking the questions framed by Booth et al. (2008), I took the iterative approach to defining and refining the topic into researchable questions.

But wait, don't I need a hypothesis?

Hypotheses, derived from theories and results of past research and literature, are statements in quantitative research in which the researcher predicts the outcome of a relationship among variables or characteristics (Creswell 2005). Traditionally used in experimental research, hypotheses are specific predictions that, like research questions, narrow the purpose of the research statement to specific outcomes. Currently, viable theories are those with many confirmed hypotheses

(Stanovich 2004); the theoretical structures are consistent with large numbers of observations. However, when data exist to contradict a hypothesis derived from theory, researchers begin to construct a new theory to provide a better interpretation of the data. Theory is not based merely on guesses or hunches, but rather on scientific or evidence-based discussions that have been largely verified and make very few predictions contradicted by the available data.

If you are pursuing quantitative research that is experimental or quasi-experimental, a hypothesis can be created, which takes the form of null or alternative and is described as either directional or non-directional. If your research is more descriptive or explorative, however, generating a hypothesis may not be appropriate (O'Leary 2004; Stanovich 2004). If you do not have clearly defined variables or large data sets bound by theoretical constraints, a hypothesis is not needed. Quantitative research questions often take one of three forms: descriptive, relationship, or comparison. While my overarching questions did not necessarily adopt these forms, the questions in my data collection protocols did. In the study of educational interpreting, for example, I am using both quantitative and qualitative research approaches to understand the multiple perspectives of stakeholders. One aspect of the quantitative approach is the use of online surveys with interpreters, parents, teachers, and administrators. In my surveys with teachers and administrators, I asked this descriptive question: How frequently do interpreters participate in professional development opportunities at your school? The following relationship question was also used: How does the shortage of qualified interpreters influence the quality of educational support for deaf students at your school? And finally, a comparison question was included: How do parents of deaf children and school administrators compare in their perceptions about the quality of interpreting services provided to deaf students?

In qualitative research, the questions include the central concept or phenomenon being explored. Creswell (2005) suggests that you design a central overarching question and sub questions. You might start by completing this script: What is (the central phenomenon) for (participants) at (research site)? My use of this script helped to create this research question: What are the experiences and perceptions of deaf students, parents, interpreters, and teachers regarding the quality of interpretation and its impact on the academic and social success of deaf students? O'Leary (2004) and Stanovich (2004) agree that a good research question broaches an issue, problem, or controversy, can be addressed by systematic analysis and interpretation of data and materials, and is neither too broad nor too narrow. The goal is to make a reasonably significant contribution to your area of study.

Evaluating your questions

When you have several potential research questions, take time to evaluate the questions; sort through those that do not address the how or why, or do not lead to thinking about your topic in new ways. The goal here is to avoid some of the problems typical of research questions: too general, too focused or restrictive, or too laden with assumptions. When you have a few questions that will stimulate critical thinking about your topic, consider combining them into a larger, more significant question. By working this step, I was able to put forward the combined impact of interpreting services on both academic performance and social development. This also led to a new question: In what ways do classroom instruction and learning mediated by a signed language interpreter alter the choices teachers make about their use of language, instructional and questioning strategies, and patterns of interaction with deaf students? Booth et al. (2008) suggest taking the perspective of "What will be lost if we do not answer the question?" Will it prevent us from understanding the area better or differently than our current understanding?

For example, I could begin by naming my project areas, adding an indirect question that exposes what I do not know about my topic, and asking a third question that reveals what might be motivating my question and why I think it is important. The process could look like this: I am exploring mediated educational environments because I want to find out how interpreting affects deaf children's academic and social experiences, to better understand the consequences of an interpreted education for deaf students in elementary to high school settings, which may influence policy and pedagogical decisions. By performing this process, I can see my progress from identifying a topic, to shaping an effective question that addresses the how or why elements, to understanding my motivation and why this question might be significant for others. Ultimately, this three-step approach can result in an effective research question(s) that will contribute to our evolving research knowledge and evidence.

By exploring the significance of your question(s), you continue to move forward in the research process, transforming your questions into a problem that is worthy of solving. Booth et al. (2008) offer excellent advice to researchers of all levels of experience, by first suggesting that we must understand the relationship between practical and research problems. They describe a cycle of practical problems that lead to questions, which define a research problem, which then leads to an answer and, ultimately, a solution to the practical problem. While many practical problems (caused by some condition) are evident in the field of interpretation, and signed language interpreting specifically, conceptual problems (arising from our lack of understanding about something) are also prevalent. An example

of a practical problem might be the supply and demand disparity, or the critical shortage of signed language interpreters for community based interpreting. An example of a conceptual problem might be interpreter disposition as a predictor of competence, as in the work done by Bontempo and Napier (2011).

After defining the nature of the problem, you are ready for the next steps, recognizing the conditions (what we do not understand yet) and the consequences of not understanding. This probing takes you much closer to grasping the significance of your question. If we apply this to the questions in the educational interpreting study, the condition of interpreting purposeful teacher discourse and its link to academic and social experiences was the focus of my interest and exploration. The consequence of not understanding is that our field might continue to view access to education from a purely transmissional approach to language use, versus understanding the intent behind the language of commonly used teaching strategies. As well, we might not fully appreciate the impact of our interpreting decisions on the deaf students' academic progress or their social interactions with others who are not deaf. As a further consequence, our approaches to educating interpreting students and pre-service teachers might not embrace new knowledge that could bring greater efficacy to interpreting in educational settings.

Understanding your research problem in relation to your research question is critical to keeping you focused on gathering relevant data and knowing when you have enough. By evaluating and charting the significance of your question, you will also address questions of interest to a broader audience, thus ensuring that your work "matters" within your discipline and research community.

Defining terms and assumptions

As you determine your questions, consider what their inherent terms mean to you. For example, *consecutive interpreting* had several definitions in the scholarly and non-peer-reviewed literature. Some studies described consecutive interpreting as using a few seconds of processing time, others as interpreting one sentence at a time, and others are using only one language at a time, no matter what the size of the information "chunk." For the purposes of my study, I wanted to be clear about my use of the term: Consecutive interpreting is defined as the process of interpreting after the speaker or signer completes one or more ideas in the source language and pauses while the interpreter provides the interpretation.

As you create your research questions and ideas, you will need to uncover your assumptions and biases. You should be able to verify each of your claims with primary and secondary sources; if you cannot, consider whether it is a bias or an assumption. For example, suppose I were to begin with the following statement:

"I am studying simultaneous interpreting in legal settings… because I want to know why and how it supports effective interpreting… in order to help my reader understand that simultaneous interpreting should be the standard of practice."

The first assumption is that simultaneous interpreting is effective in legal settings. Can this statement be justified? What is unique about legal settings that would make this question interesting? The second assumption is that my research questions will inform policy and practice. What if my research does little to inform policy makers and/or educators about practice? One of the major challenges for researchers is to refrain from overstating the importance of their study by making assumptions about what the results may tell the reading audience. Identifying and documenting personal assumptions (often known as bracketing assumptions) may lead the researcher to a more precise question in the example above: "I am studying simultaneous interpreting in legal settings… because I want to know its specific impacts on the provision of effective interpreting… in order to help my reader understand the contextual factors that shape courtroom interpretation."

Discussions with experienced researchers and practitioners can help you uncover your assumptions, so that you can acknowledge them without relying on them.

Inventory time

Part of the process of determining your research questions is to look at the resources needed to address each question. Here again, experienced researchers can serve as helpful guides, as they may point out potential problems with timelines, methodology and budget constraints. You may have a very exciting research topic and well-articulated research questions; however, if you need to gather your data in a remote community, you will need time and finances to support your work. The bottom line is this: Is the study achievable? If you are fortunate enough to have research funding, the scope of your project can be larger; for many researchers, however, funding is not readily available. In that case, you will need to determine a research topic and subsequent questions that can be researched within your local context using available resources.

As well, you will need to do a self-inventory: Do you have the skills and expertise necessary to construct the study? If not, can the skills be developed within the time frame needed for the study? Do any potential ethical problems exist with this area of study? What methodological options are best suited to your question and within your abilities and expertise? Is this a broad research question that requires a variety of accumulated data to develop an answer? Will you be able to gather data to answer the question within your budget constraints? If you have

never conducted survey research, what supports will you need to construct and pilot the survey?

This inventory may lead you to rework your questions to align with your abilities to gain access to participants and research sites, locate resources, allocate the time needed, and perform within your range of research skills. When you chart a timeline and budget for your entire research project, you may see where you need to scale back your questions. For example, if I need to budget for new computer equipment and data analysis software tools, audiovisual equipment, postage/copying costs and additional research assistants to gather the data to address my research questions, and the research is not funded, these factors have an impact on whether I can conduct this study.

Now what? The art of being flexible

Once you have a refined research question or hypothesis, you will progress to other steps of the research process, including applying for ethical approval (if required), designing the framework for the literature review, undertaking the literature search and using the framework to develop the review, designing appropriate data collection methods, gaining access to collect the data, collecting the data, coding and transcribing the data, analyzing the data, and developing the discussion and conclusions.

Crucial to these steps are the research design and methodology, which support the operation of your research questions (King, Keohane and Verba 1994). Ultimately, your questions must be answered by your methodological approach, using the tools available. Sometimes determining your methodology will lead you to reformulate your questions into a form that can be effectively managed by the available tools. As indicated earlier, as your thinking evolves and your research questions change, you must be willing to rework your research design as well. The methods you choose must suit your questions; there is no single research method that a researcher can or should follow. You will have choices to make, depending on your area of inquiry and type of research. King et al. (1994) suggest that most researchers want to explore and document relevant phenomena – something that is important in the real world. As researchers, our motivations for choosing research areas vary tremendously. Identifying your motivations and your theoretical foundations will influence your research design: where you go, how you conduct the research, who you involve as participants, and the kinds of questions you ask. The type of information you collect will be influenced by your research questions: Are you building upon a current theory, creating a new model or theory, or using existing theory in a new way?

In my own research projects, the questions I sought to address had an impact on the methodological choices available to me. For example, in the study of consecutive and simultaneous interpreting in legal settings, I wanted to examine existing theory and practice in spoken language interpreting in a way that I had not found in signed language literature. I knew that I wanted data from the work of experienced interpreters; however, Canadian legal systems do not typically allow for videotaped proceedings. This constraint meant that I needed to explore alternative approaches to answering my questions on the effectiveness and accuracy of interpreting work. The choice available was to conduct live observations of interpreters working in courtrooms, but I would not be able to review the quality of the interpretation after the fact.

During consultation with my doctoral supervisor, lawyers and judges, I determined that I could use a quasi-experimental design to approach the questions, creating two mock trials where the interpreters would use consecutive interpreting and two trials where the teams would use simultaneous interpreting. This would allow me to test the two forms of interpreting across similar discourse, and also across specific discourse events, in particular expert witness testimony, the entering of direct evidence from a witness using ASL, and the cross-examination of the same witness. The use of mock trials is a practice well established in faculties of law and within the ongoing professional development of criminal and civil lawyers, with the trials typically built around cases that have been tried in Canadian courts. I also wanted access to practicing lawyers, judges, experienced interpreters, and Deaf actors, to obtain the most natural and realistic data possible. Given that law faculties in Canada frequently have a moot courtroom on campus, planning the trials and ensuring that videotaping would not be intrusive was relatively easy (in a moot court, the equipment is built into the design of the courtroom walls). Use of the local taping site, with a rich community of lawyers and judges to recruit from, meant that the funding could be used to bring in interpreters from distinct areas of Canada, thus not limiting my data to the work of local interpreters. The additional question of determining the perspectives of the multiple stakeholders involved in the interpreted events guided me to conduct one-to-one interviews with my informants. These approaches worked well with my research question, and allowed me to gather data in a way that was realistic and manageable given my technical, financial, and time constraints.

King et al. stress that scholars must have the "flexibility of mind to overturn old ways of looking at the world, to ask new questions, to revise research designs appropriately and then collect a different type of data than originally intended" (1994: 2). My study of interpreting in educational settings presently underway is an example of the need for researcher flexibility, in revising questions and

rethinking research design. When I originally conceived of the questions and design, I planned for interpreters to videotape themselves in classrooms where they routinely work, as I wanted natural data to analyze for the six discourse frames that piqued my interest. I also planned for online surveys of teachers and administrators, interpreters, and parents. Finally, I had included targeted one-to-one interviews with teachers, administrators, interpreters, parents and, where appropriate, students. These approaches suited my research questions and allowed me to focus on areas of interest.

However, as I began to collect the data, I anticipated several challenges in gathering data for a national study, as each interpreter in each school district required a separate ethical approval application. Not only would that process be time consuming (involving 40 interpreters across seven provinces, with 40 distinctly designed applications), it would also be fraught with challenges in getting parental consent from classes of approximately 25 students each: Even if the camera were focused only on the interpreter, a student could inadvertently walk into the frame. The other challenge, evident from data gathered in school districts where ethical approval had been granted, was that the content of classroom lessons was so divergent that the coding of interpreted discourse frames was taking at least four times longer than budgeted. Hence the methodology was reworked to use standard samples of classroom discourse; the information became very familiar to the research assistants coding the material, thus reducing the time and expense needed for analysis. The other revision involved the addition of a Think Aloud Protocol (TAP). As the classroom data were analyzed and interviews with interpreters conducted, the data revealed that interpreters appeared unaware of the discourse frames and were producing work that was ineffective and inaccurate. But we did not know why that was occurring; the interview data, gathered retrospectively, did not allow us to evaluate or appreciate the interpreters' cognitive planning for the interpretations. After consulting two research experts and various colleagues, I adapted the methodology to include a TAP requirement for the interpreters prior to, and immediately after, providing their classroom samples of interpretation (Stone 2007, 2009). In this way, we began to understand whether or not the discourse features were recognized, when during the interpretation the functions were realized, and when less attention was focused on the discourse functions than on the lexical levels of interpretation. These changes in methodology allowed me to refine my questions and processes to get the data needed to complete the study.

One of the helpful tools that I have used comes from Mason (1996: 24), and allows a researcher to graphically link the research questions to methodology, justification, resources, and ethics. Visually representing all the key aspects that relate to your research questions (see Table 1) can help you to rule out questions

that would require non-accessible resources, whether financial support, logistical needs, skills required for data collection, or ethical sanction to address your questions with the selected methodology.

Table 1. Sample chart for documenting aspects of research questions

Research question	Methodology	Justification	Resources	Ethical issues
In what ways do interpreters represent meta-cognitive questions in mediated education settings?	Videotaped classroom interpreting performances: authentic classroom samples or standardized educational classroom stimulus tapes; both would allow for greater analysis versus live classroom observations	Literature review that supports the research problem; need for Canadian data; authentic data required of interpreters who do the classroom interpreting work	Equipment for recording interpreting work; computer software for data analysis; research assistants to code data	Ensuring ethical processes completed for school district; ensuring no students/ teachers are visible on tapes unless permission given

Building your research agenda

While conducting your research, you may discover many more research questions that stem from your initial project. Capturing these as you work is important, since they may lead to your next study. If you are interested in your topic, the new questions arising may launch your research agenda. Building on your findings in a similar area not only offers you a position of strength and experience, it also allows you to create further depth in your areas of study. One of the questions that I want to study next emerged from the data analysis during my educational interpreting research, which indicates that interpreters are not recognizing many intentional aspects of the teacher's language. I am interested in discovering how Deaf teachers use those same discourse features when teaching deaf students, so that we can learn from modeling by master teachers and consider how that might inform our teaching of interpreters. This is not an area of inquiry that emerged as I designed the research project, but given the results of the study it is an important research question now. This new inquiry will deepen my understanding of how both English and American Sign Language demonstrate purposeful teaching strategies that are mediated by language, and how those might be handled in interpreted discourse.

Summary and conclusions

This chapter has outlined various aspects that interpreter researchers must take into consideration as they embark on the research process, beginning with the central question. In exploring how researchers determine their topics of interest and then narrow those to researchable questions, we have explored sources of inspiration – from published literature, conference presentations, online discussion groups, and using our own work as interpreters to prompt questions of significance. In discussing these, I have suggested that a crucial element of exploring the literature is to adopt the perspective of a critical consumer of research. When evaluating published work, we need to view it through a lens of exposing its strengths and its limitations, especially when using it to create a literature review that provides a foundation upon which to frame subsequent research questions. As an iterative cycle, the research process presents multiple opportunities to understand our questions and motivations in more depth as we progress. This chapter has introduced techniques described by Booth et al. (2008), designed to help us move from topics to questions to a deeper understanding of the significance of our questions for ourselves and for others. Throughout the chapter, I have illustrated processes that helped to shape research questions in two studies that I have undertaken, and demonstrated how those studies have led to other research questions. I have also suggested that our research questions need to be evaluated with respect to research skills and available resources during the study. We may have the world's best questions but lack the skills and resources to undertake the research to adequately address them. Or, ethical constraints may prevent us from exploring our questions of interest. King et al. (1994) encourage us to remain flexible as researchers, to ask new questions, to revise our designs and then collect new data to suit the revised plans; this chapter provides examples of how this has indeed happened in my research projects. Our field will continue to be advanced by the efforts of those exploring questions to help us understand the complexity of interpreting. Research performed well, which then informs practice, is an exciting path to take.

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Identifying and interpreting scientific phenomena

Simultaneous challenges to interpreting research

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Shneider (2009) identifies four different stages in the development of a scientific discipline, and we can safely state that interpreting as a science has advanced from stage one to stage two, where scientists develop a toolbox of methods and techniques for the new discipline, and is currently navigating the early phases of stage three. According to Shneider it is advances in methodology that bring about an improved understanding of the phenomena that fall into the realm of the new science. The range of phenomena included in interpreting as a science has steadily grown over the years. This essay reviews the expansion of disciplinary boundaries in interpreting and identifies the challenges to be addressed if interpreting as a discipline is to successfully mature and manage the scientific process in an optimal manner.

Introduction

In writing *Paradigms gained or the art of productive disagreement* fifteen years ago (Moser-Mercer 1994), this author quoted Chomsky (1979: 82) who said that "there is no place for any a priori doctrine concerning the complexity of the brain or its uniformity as far as the higher mental functions are concerned" and concluded that one of the potentially most productive features of the interpreting research paradigm was the fundamental tension that existed between its different research communities. If all scientists were conforming in their views, all would make the same decisions at the same time (Kuhn 1977) and it is doubtful whether interpreting as a scientific discipline would survive (Moser-Mercer 1994). The paradigmatic nature of science is in large part determined by the various stages through which a scientific discipline evolves, and interpreting as

a research discipline is no exception. While it might seem presumptuous to engage in stock-taking when a discipline is as young as interpreting, the risk being the tendency to misinterpret certain trends, the framework for the development of a scientific discipline proposed by Shneider (2009) allows us to structure this analysis in ways that recognize valid achievements, justify and substantiate critique, and ultimately formulate recommendations that are specific to the stage of development of our discipline, rather than to the scientific enterprise as a whole. It is useful, though, to refer back to the paradigmatic nature of interpreting as a science (Moser-Mercer 1994), in order to gain a more comprehensive understanding of the processes occurring in each stage of Shneider's (2009) model, and to ensure that recommendations issued for a particular stage of development are appreciated against the backdrop of the scientific enterprise as a whole.

Adopting a framework for analysis

According to Shneider (2009) we can identify four different stages in the development of a scientific discipline. Stage one introduces new objects and phenomena as subject matter for a new scientific discipline as well as a new language that adequately describes this subject matter. During stage two there will be increased understanding of the entire spectrum of objects and phenomena that fall into the realm of the new science. Generation of most of the specific knowledge happens in stage three, when we observe the largest number of publications as most of the research is based on the application of new research methods to objects and phenomena. During stage four, then, we maintain and pass on knowledge generated during the first three stages. There will be no groundbreaking discoveries, but new ways of presenting scientific information will be developed. It is during this stage that crucial revisions are often made of the role of the discipline within the constantly evolving scientific environment.

Each stage determines the optimal type of researcher capable of contributing to the field. Attempts to apply the same criteria to scientists working on scientific disciplines at different stages of their scientific evolution would be stimulating for one, yet detrimental to the other. Researchers operating at a certain stage of scientific evolution might not possess the mindset adequate to evaluate and *stimulate* a discipline that is at a different evolutionary stage.

Identifying and interpreting scientific phenomena – Developing disciplinary boundaries

During the early days of stage one, the focus in interpreting research was clearly on what came to be known as conference interpreting, on the need for bilingual communication, on the objectives of transferring information from one language into another, and on ways in which this could be managed most successfully. We witnessed the birth of consecutive interpreting, practiced and perfected at the League of Nations, its more widespread use as political realities required more bi- and multilateral meetings. Authors such as Herbert (1952, 1978) reminisced about the essential requirements for delivering quality interpretations, such as an in-depth knowledge of languages and cultures, parliamentary procedures, and diplomatic process. The focus was on feats of memory as witnessed in the Kaminker brothers and the formulation of first guidelines for the proper training of interpreters.

The introduction of simultaneous interpreting inaugurated a whole new era of inquiry into the optimal ways of acquiring and perfecting the necessary skills. This gave rise to more accounts of reflective practice (Baigorri-Jalon 2004), together with prescriptions as to the best ways to learn the new skill. The period between the introduction of simultaneous interpreting at the International Labor Organization in 1928 and its regular use at the Nuremberg Trials, and later on at the United Nations, was characterized by rapid expansion of the profession with a concomitant need to train a larger number of highly qualified interpreters in an increasing number of languages. Training was moved from the conference room – where it had been organized in the early days at the ILO – and rooms adjacent to the Tribunal, where it was offered during the Nuremberg trials, the basement of the Methodist church in the Rue Calvin in Geneva (Moser-Mercer 2005), where classes were offered as a non-curricular option to students and alumni of the Ecole d'interprètes, to university degree programs that sprung up in several countries (Vienna, Austria; Georgetown, USA; Heidelberg, Germany, etc.). With interpreting entering academe the professional dimension had to be incorporated either in an existing academic discipline, in most cases languages and literatures, as translation had yet to establish itself as a discipline in its own right.

As these university training programs were usually set up at the MA level, the need for developing research manifested itself and meeting it required that objects and phenomena of research be labeled and defined. Creating the language to describe the subject matter was an active process that engaged practitioners and academics alike, sometimes in very fruitful collaboration, as was the case in the sixties and early seventies for Gerver and Longley at the London Polytechnic,

or in a more solitary manner, as was the case for Kurz(-Pinter) in the late sixties at the University of Vienna.

The political and economic environment in which interpreting operates required increasingly more training and, as a consequence, more and increasingly powerful pedagogical scenarios to meet the need for highly qualified interpreters, especially in the European Union. This pushed practitioners further along the path of analyzing and describing the phenomena at hand. Already back in the 1920s at the International Labor Organization (ILO) and in the forties at Nuremberg it had become clear that not everyone who knew two or more languages could be an interpreter and that it was not a foregone conclusion that good translators would automatically become interpreters. This created considerable interest in selection criteria that universities would apply in order to admit candidates to their training programs, and with the increased demands placed on simultaneous interpreters in terms of workload and input speed, and the requirement to formally justify admission decisions, practitioners began to look for answers in other disciplines. This ushered in the era of interdisciplinary research (Barik, Gerver, Goldman-Eisler) and with it first encounters with scientific research methods and the application of such methods to the study of interpreting, simultaneous interpreting in particular. This also broadened the boundaries of this new field of study to include psychology, linguistics, bilingualism and sociology. The proceedings of the Venice Symposium organized under the auspices of NATO in 1977 reflect the diversity of disciplines that had begun to take an interest in interpreting as an object of research (Gerver and Sinaiko 1978). While these encounters created a certain amount of friction between practitioners of interpreting and researchers from other disciplines, this tension was and continues to be a necessary ingredient if interpreting as a discipline is to mature.

Further development of interpreting in different settings, including court interpreting, and liaison interpreting, broadened disciplinary boundaries while initially fracturing the emerging core of interpreting researchers. Some of the tensions alluded to in *Paradigms gained …* (Moser-Mercer 1994) were rooted in the researchers' misperception that what many considered to be a practical skill could not be subjected to scientific scrutiny. The broadening of the discipline was mistaken for competition and the very notion of competing theories was alien to practitioners. Stage one, then, seems to have been navigated successfully by our discipline, although new objects of study continue to be introduced during stage two requiring the discipline to return to stage one for appropriate description.

Simultaneous challenges

Much of interpreting research is still in stage two as the number of phenomena that fall into the realm of interpreting research continues to increase. Most of these reflect emerging trends and new ways of practicing interpreting that result from political, social and economic processes, such as remote interpreting, interpreting for television and film, interpreting in hospitals and for asylum seekers, to name but a few. The last two decades, however, have witnessed a clear progression in some areas of interpreting research towards research practices that are closer to those in established and mature disciplines. The emergence of researchers with dual qualifications, experts in interpreting with advanced degrees in other disciplines (Kurz, Moser-Mercer, Setton, Liu, Wadensjö, among others) has brought to the fore issues of fundamental vs. applied research, the specificity of the phenomenon vs. interdisciplinary links, and a call for a refined description of the phenomena at hand without ranking of different types of interpreting according to social status. This obviously necessitated the introduction and development of more refined research methods, all in the face of competing calls for the study of interpreting phenomena as they occur in real life. The ecology vs. laboratory debate, that characterized much of the late 20th century in interpreting research, has yet to give way to the requirements of a generally systematic approach to studying the phenomena at hand. The overwhelming majority of publications in interpreting continue to abide by the unwritten rule the emerging discipline had formulated for itself, that one cannot study interpreting as a phenomenon in isolation.

With quantity of publications replacing scientific rigor as the main criterion for judging the development of a discipline, many younger researchers have considered investing in solid scientific training as unnecessary at best, or undesirable at worst. Stage two activities, such as describing the phenomenon, still account for the largest percentage of publications. An eagerness to describe specific dimensions of the phenomenon as fully as possible, and as quickly as possible, has deprived interpreting research of the kind of investment a discipline has to make in developing its methodological tool box and launching long-term research projects. This can in part be explained by the requirements of academe to produce a large number of publications quickly in order to qualify for academic positions; since interpreter training was offered by universities and more practitioners were needed to train an ever larger number of students these practitioners had to produce the right credentials to be able to teach at graduate level. It can perhaps in part also be explained by the fact that interpreting is a fast-paced process that does not afford the practitioner the leisure to analyze phenomena at great depth, nor ponder competing theories. Interpreting as a process requires

swift decision-making and, in case of road-blocks, cutting one's losses and moving on for the sake of getting the general message across.

Nevertheless, without considerable attention to research methods and the development of the scientific toolbox and without recognizing that the development and refinement of these research tools is as important – if not more important – at a certain stage of development of a discipline than additional descriptions of known or emerging phenomena, interpreting research will not advance to the next stage. Does that mean that interpreting is doomed to remain in stage two? Are we encountering barriers to our managing the scientific process? Are we experiencing difficulties in communicating with other disciplines because we have considered investing in our scientific language or toolbox not to be essential – itself a contradiction in terms for us who are professional communicators? Are we coming up against major obstacles in meeting the simultaneous challenges of extending the boundaries of our field of inquiry while increasing the depth and rigor with which we analyze the phenomena at hand? How can we stimulate cross-disciplinary interest and invite experts from other disciplines to adopt interpreting as a research paradigm? Are we using lack of funding from respected funding agencies as a fatalistic excuse for not committing ourselves more to stage three activities, thereby perpetuating the vicious cycle of "no funding – no basic research – no valid and reliable research results – no funding"?

Defining the scope of inquiry

While there is certainly no doubt as to the indefinite nature of objects and phenomena that remain to be described in interpreting, moving squarely into stage three will require a significant commitment of the discipline as a whole. I will try and sketch both the breadth and depth of this commitment by returning to Kuhn's analysis of the scientific enterprise (Kuhn 1962, 1977), begun in my earlier reflections on the subject (Moser-Mercer 1994).

In outlining the route to normal science, Kuhn describes how paradigms are created and what they contribute to scientific (disciplined) inquiry. In particular he points out that "normal science" is firmly based upon one or more past scientific achievements – achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice. These achievements must, on the one hand be sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity and, on the other, be sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners (and their students) to resolve, i.e., provide ample opportunity for research. Kuhn calls these achievements paradigms and contends

that the road to a firm research consensus is extraordinarily arduous. Students then study these paradigms in order to become members of the particular scientific community in which they will later practice. Since students largely learn from researchers who acquired the basics of their field from the same concrete models, there is seldom disagreement over fundamental concepts as both researchers and students are committed to the same rules and standards for scientific practice. Given this shared commitment, researchers and students are most likely to engage in the kinds of observations that their own paradigm can do most to explain, i.e., investigate the kinds of research questions to which their own theories can most easily provide answers.

In short, paradigms help scientific communities create avenues of inquiry, formulate questions, and select methods with which to examine questions, define areas of relevance and make sense of their observations against the backdrop of their paradigm. A paradigm is essential for scientific inquiry as in its absence all the facts that could possibly pertain to the development of a given science are likely to seem equally relevant. A paradigm is also essential to scientific inquiry, because no observation can be interpreted in the absence of at least some implicit body of interrelated theoretical and methodological beliefs that permit selection, evaluation, and criticism.

A requirement for successfully entering stage three is the achievement of a *thorough* understanding of the object(s) and phenomena of inquiry during stage two. However, in interpreting research we observe major difficulties in this phase of the development of our discipline, both in terms of delimiting the field of research and the depth of analysis of identified phenomena. All too often, young researchers, usually MA students in interpreting, propose topics of research that fall outside the area of expertise of their advisers. Consequently, they are left to treating the research topic in a superficial and methodologically unsatisfying way; they will not learn to appreciate that the field is broad and that competence across a broad range of phenomena cannot be expected, nor is it a requirement of good science.

My first recommendation for moving interpreting research from stage two to stage three thus relates to interpreter training programs that include a research component to focus on a well-defined field of research in which expertise has been established and competence has been recognized. This will go a long way towards developing the interfaces between specific phenomena of inquiry and their potentially corresponding, established discipline(s), as this requires an exhaustive description of the phenomena, the refining of concepts and their corresponding labels, and the development of the scientific vocabulary needed to communicate with other disciplines. As the latter represents a major challenge for interpreting research, which has yet to develop a sufficiently large and agreed

upon terminology for describing and analyzing phenomena, the focus on more detailed and scientifically agreed upon descriptions of phenomena and of empirical evidence must become central to our scientific undertaking. Unless we learn to speak the language of neighboring disciplines with which we hope to communicate, there will be no progress in our field: paradoxically, interpretation is but a very unsatisfactory option.

Laying the ground work – Science education

Stage three puts considerable emphasis on the development and application of new research methods to objects and phenomena of inquiry. If we look at how paradigms are created we observe that inquiry begins with a random collection of "mere facts" (although, often, a body of beliefs is already implicit in the collection). During these early stages of inquiry, different researchers confronting the same phenomena describe and interpret them in different ways. These are the stage one activities identified above. Over time, these descriptions and interpretations disappear to make way for a pre-paradigmatic movement/school, with some schools often emphasizing a special part of the collection of facts. Often, these schools vie for preeminence and from the competition of pre-paradigmatic schools, a particular paradigm emerges. To be accepted as a paradigm, a theory must seem better than its competitors; but it need not, and in fact never does, explain all the facts with which it can be confronted. This opens the doors for further research.

For interpreting research the challenge resides in training those who are to produce descriptions and interpretations of the objects and phenomena of our field. Not only does science education as such rarely feature in any of the interpreter training curricula (after all, the profession attracts mostly those students who don't want to "do science"), it also receives mostly cursory treatment at the level of doctoral education. At the MA level students are usually not given the opportunity to explore the significance of science in the field of interpreting, the emphasis being usually placed on covering a lot of reading material instead of discovering phenomena through "doing science". As a consequence, students are ill equipped to question, to observe, to collect and organize data, and to reflect on concepts. The essential ingredients of meaningful science, one that fosters attitudes of curiosity, healthy skepticism and encourages the formulation of alternative explanations, are often absent from MA curricula and deprive MA graduates of the basic tools they need to do good science.

Instead of skimming many topics in interpreting research superficially, students should explore fewer topics in-depth. That, however, presupposes their

having been given the opportunity to develop good scientific habits in general, and a solid set of tools/methods in particular. Research centers thus have an obligation to train their young researchers beyond making sure that they cover the assigned readings, answer questions or write summaries. While research methods may be acquired through reading a large number of empirical studies – of good and not-so-good quality – the actual exploration of research questions (i.e., the students' active involvement in the scientific enterprise at every level of training), is what prepares future researchers and ensures the quality of scientific activity in our field. For a variety of reasons, our field is simply not investing enough in the education of its researchers. This not only hampers the development of our discipline, but renders collaboration with other disciplines extremely difficult.

I am tempted to label the move towards scientifically valid research methods for a variety of observed phenomena in our field a new "paradigm", one that I hope will grow in strength and enjoy an ever larger number of advocates, as this will ensure that the pre-paradigmatic school, the one that has been operating largely without adhering to accepted forms of scientific inquiry, will fade. Because as Kuhn (1962) notes, when an individual or group is able to attract most of the next generation's practitioners, the older school gradually disappears. Those with older research approaches are simply read out of the profession and their work is subsequently ignored. If they do not accommodate their work to the new paradigm, they are doomed to isolation or must attach themselves to some other group. In this way the new paradigm transforms a group into an accepted discipline. From this follow the formation of specialized journals (which has begun in interpreting, although in most instances both translation and interpreting are covered), the foundation of professional societies, or special research interest groups (not really underway for interpreting as a discipline); and the claim to a special place in academe, itself the object of ongoing struggle by representatives of the discipline in many countries. Members of the group would no longer need to build their field anew by enunciating first principles, or by justifying concepts, questions, and methods. Such endeavors would then be left to the theorists or to writers of textbooks; with the exception of edited collections of articles and isolated monographs on one or the other specific type of interpreting, the latter simply have yet to be written and published. Another result of this development would be the promulgation of scholarly articles intended for and addressed only to professional colleagues, those whose knowledge of a shared paradigm can be assumed and who prove to be the only ones able to read the papers addressed to them, no longer making it necessary for each and every scientific article on interpreting phenomena to have to cover the basic tenets or concepts. Such a paradigm would guide the whole group's research, and it would be the criterion that most clearly proclaims a field a science.

Moving on to the next stage

Thus, while it is tempting to look at just how far we have come as a discipline, the only guarantee to move squarely into stage three is to invest in our researchers by guiding the inquisitive minds of our graduate students and helping them to make full use of their research potential. In addition to the above this also implies generating interest in scientific inquiry beyond the MA thesis obligation, by narrowing the scope of inquiry and by insisting on depth and rigor instead.

Stage three is unquestionably the most fascinating stage in the development of a discipline as the generation of specific knowledge allows us to shed light on specific phenomena and validate assumptions, theories and models. While this would indeed explain the steep increase in publications we have witnessed in our young discipline over the last two decades, the latter does not automatically guarantee that new knowledge is generated, as it is largely determined by the application of new research methods to objects and phenomena.

As scientists we cannot reasonably work within the framework of more than one paradigm as the range of application of a paradigm must be restricted to those phenomena and to that precision of observation with which the experimental evidence in hand already deals. Precision of observation and methodological stringency, then, determine both the successful navigation of stage two and the quality as well as validity of the scientific endeavor of stage three. Methodological stringency is not confined to one set of methods, but derives from the principles accepted by a discipline for advancing scientific knowledge for a sub-set of phenomena. Given the wide variety of phenomena under investigation in our discipline, there is no one set of methods that would apply to the entire range of observations and data. Nevertheless, for interpreting research to move beyond stage one, which as we saw earlier is largely characterized by observation, the discipline needs to move beyond the mere reporting of observations. Stage two saw the development of theories/models of the interpreting process, in particular the simultaneous interpreting process, but empirical research has so far not produced sufficient data for exploring the validity of these theories. Thus, we have not yet been able to reject any theory on the basis of scientific evidence, while preferences for one or the other have clearly emerged, mostly due to preferences of certain research groups regarding fundamental assumptions of doing science. Often, these decisions have been influenced by these groups' investment in the development of research methods, the breadth and depth of their empirical, and often experimental research activity, and their subsequent ability to interface with neighboring disciplines and apply their findings to interpreting phenomena. Such investment pays off as neighboring disciplines, often in a more advanced stage of development compared to interpreting, develop more sophisticated tools for

analyzing scientific phenomena which then can be applied to interpreting. This reinforces the need for interdisciplinary collaboration predicated on our ability to understand and speak the same language.

If indeed we manage to successfully navigate stage two, we may witness during stage three the emergence of additional paradigms, which would be the source of the methods and standards of solution accepted by a mature scientific community at any given time. This may well bring about a need to change the meaning of established and familiar concepts in interpreting research, to the extent that new paradigms might be irreconcilable with previous ones. Old problems might then be relegated to other sciences or declared unscientific and problems previously nonexistent or trivial may, with a new paradigm, become the very archetypes of significant scientific achievement. At the risk of being biased, this author sees considerable potential for this in the cognitive neuroscience approach to interpreting, which combines a solid understanding of the interpreting process with the ability of neuroscience to analyze phenomena at a highly granular level. Interpretation of these data as informing us about the interpreting process, however, is only possible within a research paradigm developed for interpreting, allowing us to proceed to the scientific validation of theories and models (Moser-Mercer 2010).

These are exciting prospects for interpreting research as it enters stage three provided we responsibly manage stage two and insist on scientific standards when investigating interpreting phenomena. Standards are the vital link to neighboring disciplines and a perquisite for the acceptance of interpreting research as a scientific discipline. While it would be easy to bemoan lax standards in interpreting research, one can also argue that standards are neither raised nor do they decline, but that they simply change as a result of the adoption of a new paradigm, which provides the road map for solving the questions that interpreting research has posed. The proverbial complexity of the interpreting process requires that we develop such maps to guide the scientific enterprise. The difficulty interpreting faces as a discipline is that its standards are not uniformly agreed upon, rendering an exhaustive exploration of existing paradigms almost impossible.

Interpreting as a discipline, where research paradigms, i.e., theories and models, and methodological paradigms, i.e., what we consider good science, overlap and at times compete, truly faces simultaneous challenges. While we have come a long way towards identifying scientific phenomena, and are well into stage two of our discipline's development, their interpretation is hampered by multiple challenges related to the development of a common scientific language, our scientific toolbox and our standards. The scientific environment we operate in is constantly evolving; interpreting as a discipline has great potential to contributing to our understanding of how the human brain works and how we communicate with

each other, provided the discipline successfully navigates the scientific process. The prospects of playing a major role in the larger scientific enterprise should convince us of the importance of the investments we need to make.

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The first three years of a three-year grant

When a research plan doesn't go as planned

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This chapter describes the progress and the challenges of a three-year, small grant-supported project designed to collect, transcribe, code, and analyze interpreted encounters in a variety of institutional settings. In keeping with our project goals, we videotaped nine interpreted interactions, transcribed much of the data, and, with the help of a research assistant, began to code the discourse features in at least three of the transcribed videos. Our discussion focuses on the challenges inherent in a project designed to capture naturalistic data in a wide range of institutional settings. We reflect on our experiences regarding the full research cycle and make recommendations for future interpreting research. In addition, we provide samples from our project, including photos, transcriptions, sample codings, and findings. We also make a case for the benefits of developing a corpus of naturalistic data in the interpreting field, and of developing a body of qualitative analyses of interpreted discourse.

Project description

The purpose of our study was to investigate interpreted encounters in medical, legal, educational, government, and business settings from a discourse perspective. For many monolingual minority language users around the globe, interpreters are a necessary part of life. Even for bilingual or multilingual deaf and hard-of-hearing persons this experience is true; interpreters are provided to overcome language barriers that arise between deaf and hearing people in the everyday routines of many public institutions. Most of these routines are accomplished by talking face-to-face, by having a conversation. How these conversations are accomplished through an interpreter has not been thoroughly investigated with regard to signed language interpreting.

Interpreter-mediated, face-to-face conversation has received little research attention; while numerous studies gather needed empirical data via "mock"

interpreting (such as using created or experimental interactions, see for example, Siple 1995; Russell 2002), we are aware of only two case studies of American Sign Language (ASL)/English, interpreter-mediated conversations which were live and authentic, Roy (1989) and Metzger (1995). Roy (1989, 2000) studied a professor-graduate student meeting; Metzger (1999a) studied a doctor-patient visit and a student role-play. Their findings revealed that the interpreter's role is multi-layered, that "an interpreter's role is more than to "just translate" or "just interpret"" (Roy 2000: 66). Interpreters guide and direct turns at talk, initiate requests for clarification, respond to questions directed at them, identify the source of a message, and more. While these findings may be applicable to other settings, there is no direct evidence that this is the case. Other settings, such as medical, legal and others have not been investigated as face-to-face, discourse encounters with ASL-English as the language pair.

However, in her study of twenty, audio-recorded interpreted interactions with two spoken languages, Wadensjö (1992) encountered and described additional ways in which Swedish-Russian interpreters take an active, participatory role. By investigating a similar range of breadth and depth in signed language interpreting, we hope to discover what discourse features these interactions share, not only across different settings in ASL/English interpreting, but also what is shared across spoken language settings. At the same time, we expect to find and describe differences and to observe how they arise out of the interaction, and look for those features that make each interaction unique.

Thus, approaching interpreting as a communicative process among the participants, we proposed to describe and analyze interpreter-mediated conversations within these settings by understanding how the participants interact, how communicative intentions, expectations and assumptions are revealed, and how the responsibility for the substance and the progression of interaction is distributed among these interlocutors.

Gallaudet University Research Institute provided funding for three years, during which we intended to:

1. collect at least two interpreted interactions per year;
2. transcribe and begin an analysis of these interactions for features revealed in previous research and to inform the upcoming data collection; and
3. implement findings into the design and teaching strategies of interpreting courses, and disseminate through publications and conference publications.

While we thought three years was an adequate amount of time to accomplish the major goals of our study, we quickly discovered that a number of challenges lay ahead.

Data collection: IRB consent, participants, and filming

A growing number of studies of spoken language interpretation are based on medium to large corpora of interpreted interactions (Angelelli 2004; Berk-Seligson 1990; Hale 2004; Wadensjö 1992, 1998). The study described here was designed to be a pilot study focused on gathering examples of interactional data that would begin a corpus of interpreted interactions across settings. We anticipated that challenges would emerge, not the least of which due to the fact that spoken language interpreting scholars are able to collect data via audio-recordings, which are far less intrusive than the video recordings required for the study of signed language interpretation.

Access to interpreted, face-to-face encounters that are private and personal is complicated. All the arrangements – permission and access from a minimum of three participants, consent paperwork, recording equipment, recording logistics, and other factors – make recording and analyzing such encounters no small task. We were pleasantly surprised to find that almost everyone we contacted was interested and willing to participate, but we were not surprised to find that identifying the small encounter in which we could get everyone's permission, gaining space for recording equipment, and researcher, and obtaining adequate lighting and space proved challenging. While we anticipated that gaining entry to encounters in each setting would require unique preparation, we found that the process of obtaining informed consent, in addition to the factors mentioned above, would have been more effective with more time or personnel than we had available in a small-scale pilot study. By conducting a pilot study, we were able to identify at least some of the issues to be addressed in a large-scale follow up should a future attempt to gather a corpus of interpreting data be pursued. These issues relate across the specific settings in which we intended to collect data, with regard to such issues as IRB consent, identifying the possible participants in the study, technical/logistical issues, and personnel required for data collection.

Institutional review board (IRB) informed consent

Interpreted face-to-face meetings must be filmed when one of the languages is a signed language. While filming provides a rich data source, it also poses serious and unique threats to confidentiality and privacy. Block, Schaffner, and Coulehan (1985) and many subsequent studies express concern that procedures for protecting videotaped patients were "clumsy and inadequate" and the richness of the recorded interactions detracted attention from the need to prevent violations of privacy. An essential component for conducting research and especially

videotaping or filming is to ensure that an informed consent is sufficiently informative and ensures confidentiality, yet provides both participants and researchers with a process that is not overly cumbersome.

The decline in the cost and size of equipment has made videotaping much more feasible for researchers studying naturalistic human interaction (Pink 2001), especially interpreting, and is mandatory when studying participants who use a signed language. This is an exciting development as videotaping has an unparalleled power for capturing context and communication, as well as allowing for "repeated, detailed examination" of interactions that can also be examined by others (Goodwin 1994). With such extensive use of film, including the web and cell phones, everyone is becoming accustomed to being filmed, and it is expected that researchers will display videotaped data at seminars, conferences, and within papers.

As we searched for similar experiences within sociolinguistics and other disciplines, we read essays about fieldwork that mentioned videotaping as a new and exciting development, but lacked discussions about confidentiality and informed consent, with one exception, Johnstone (2000). For example, in a recent essay on sociolinguistic fieldwork, Schilling-Estes (2007) discusses video recording with one paragraph, mostly asserting that even a video recording has a point-of-view when recording. And nowhere within her discussion of confidentiality is there a nod to the fact that video data is not anonymous, and is thus problematic for both participants and researchers. Johnstone, on the other hand, but also in a single paragraph, notes that videotape makes identities "potentially recoverable", and recommends that participants should always be kept "anonymous or pseudonymous" which we have done (2000: 41).

Nonetheless, the major challenge of videotaped data is that it clearly identifies the participants and thus participants cannot remain anonymous, once the cornerstone of research involving humans. Now, while most everyone has seen images of themselves with such widespread use of video, it is, nevertheless, not customary to see oneself in an institutional encounter displaying one's private business and/or set of skills, participating in a mediated communication, and discussing not only private concerns, but potentially litigious issues. Interpreters engage in a profession that is, plainly put, open to interpretation. Any professional practitioner would be able to hypothesize what could be done with a recording of their work.

Moreover, for members of the deaf community, there is no way to participate in language-related research while maintaining privacy. To have the private moments of one's encounters within public institutions recorded could mean a display of their interactions at conferences or in publications that friends and colleagues might access. Thus, filming requires giving up anonymity, while the images remain captured on film for a long time.

Until recently, researchers simply had to ask participants to sign a consent form that included or implied the consent to be videotaped. Rarely were the possible uses of the videotape spelled out, and if they were, typically, it was to show in educational settings. Because researchers, such as Butler (2002) and Yakura (2004), began to raise questions about how well participants understood both giving consent to be filmed and what would happen with their videotaped image, such as showing isolated sequences to audiences, often pointing out errors or mistakes, the informed consent process has undergone intense scrutiny.

By the time our project was underway, privacy laws (such as HIPPA[1]) and the use of litigation made informed consent a more difficult step. Now the potential exists for any member of a videotaped or filmed interaction to subpoena the tape or DVD for legal action.

As a result of these concerns, we were required to develop three different consent forms – one for the interpreter, one for the "client/patient/student," and one for "professionals with confidentiality protection" (see Appendix A). Each of these consent forms had to include warnings about the video product. For example, the consent form for professionals included this warning:

> By making this videotape, we are creating a record of your advice or counsel. If this interaction becomes subject to litigation, the videotape may be subpoenaed. Your client or patient may lose their right to privilege if this information becomes subject to litigation as well.

This warning is included within the other consent forms without the first sentence. Then, in addition, participants were required to sign a video release form – a separate and independent form (see Appendix B).

The release form included an agreement to be videotaped, the understanding that only the researchers and their assistants will view the tapes, and then the participant had to agree to one of the following:

When the study is finished, I further agree to one of the following options:

1. my participation will continue to be confidential and the researchers may use a transcript of the interaction in order to re-created what happened for educational purposes and for graduate student research;
2. the videotape of my participation will be kept in an archive and may be used for educational purposes and for graduate student researchers to conduct further research;
3. the videotapes of my participation will be destroyed.

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1. HIPPA is the Health Insurance Portability and Accountability Act of 1996 (USA) which protects the privacy of individually identifiable health information.

This form, in addition to the consent form, was quite a bit of information for any one person to absorb while faced with a client/patient and a researcher with a camera. While these protections are necessary, the warning, length, and number of forms sometimes overwhelmed participants. Often, there was only a small window of time and opportunity to display these forms and ask for signatures. Given the amount of text to read and the dire nature of the warnings on the consent form, many participants refused to sign. However, it was also the case that many of the professionals with confidentiality protection refused to be filmed without even seeing the consent or video release forms.

While we made efforts to contact professionals in advance, more often than not, they had not read the forms before we came, or had not even seen them. Although their office staff may have made the effort to inform them of the upcoming videotaping, the professionals we saw often seemed put off by the length and complexity of decisions and choices within the two forms.

In spite of the difficulties, we were able to gather data from the medical, legal, educational, government and business settings as we had hoped. Not surprisingly, the medical, legal, and educational settings provided the greatest challenges. For example, we were allowed to film one court-ordered probation check-in meeting (a legal setting) and this one encounter provides a first case study opportunity in a naturalistic interpreted legal encounter.

Our efforts to film in medical settings, however, often met with resistance from medical professionals. We would get permission from patients and interpreters only to have the medical personnel refuse to be videotaped. Despite these barriers, we collected three dental (medical) encounters.

In business and government settings, we were often allowed to film staff meetings or general committee meetings that were conducting business that was open to the public. We accepted these opportunities even though they were not the smaller, face-to-face encounters from previous case studies. For one thing, multi-party meetings are more common in business than medical settings (depending, of course, on the nature of the interaction). Also, multi-party meetings are more likely to carry less personal risk to any one of the participants. As these are, in the U.S., very common interpreted interactions, it seemed well worth gathering these data.

In educational settings, it required more than a year to make arrangements and receive permission to film in a high school setting. The school system with which we worked had its own institutional IRB, so we went through a second review process, which resulted in a loss of time. Then, as in the case of business settings, we were more welcomed into classrooms than one-on-one encounters, as the latter are prone to be more private. With the assistance of interpreters

working inside the school system, we were able to identify classes that themselves incorporated one-on-one or small group interactions, rather than lecture classes, as the former were more in keeping with the interactive data we were seeking for the study.

While the protections in consent forms are necessary, they are also cumbersome and, at some level, forbidding. With the warning language of the consent form, and the options involved in the video release form, it becomes remarkable that anyone gives consent and allows themselves to be videotaped, particularly while at work. And, of course, at any point, any participant may withdraw or cancel consent.

In sum, each setting posed a unique set of opportunities and obstacles with regard to consent and data collection. We were pleased to gain the experience and data we did in these varied settings, as this represents the largest corpus of naturalistic signed language interpreting data that we know of, and offers a rich source of exploration from which to further the case studies mentioned above. Further, we gained invaluable insights toward the application of this pilot to a large-scale project, should the opportunity arise to collect an organized and larger corpus of naturalistic, interactive interpreting data. These insights will be addressed in the conclusion below.

Participants

In order to locate participants in such a broad range of settings, we had a multipronged approach in recruiting participants. This approach included seeking contacts directly associated with each setting, as well as a more expansive search with the deaf and interpreting communities. The former often consisted of making direct contact with institutions (e.g., hospitals, school systems), and the latter with "advertising" and/or contact with organizations such as interpreting referral agencies.

For example, we contacted a local interpreting agency that had indicated their willingness to participate in the project. At their suggestion, we gave a presentation on research in interpreting and explained the purpose of our study. Several interpreters volunteered to participate and quickly one interpreter received approval at her workplace to film one of their regular staff meetings, which had one deaf member. We also held a meeting for the agency's schedulers (people who took requests for interpreters and made assignments), explained the project, and discussed how they could help by scheduling an appointment and initiating approval to record the meeting. Although meetings with the schedulers and written

explanations that they could share with clients and consumers seemed helpful, ultimately this effort did not result in any recordings. It was clear that, although the schedulers had been provided an information sheet, speaking about our project and getting an initial acceptance was more difficult for them than they thought. After discussions with the agency staff, it was clear that someone needed to be available in-house, on a day-to-day basis, in order to follow-up and talk to possible participants. Many of the clients associated with institutions such as clinics, hospitals, law offices, and government agencies, refused immediately. This made us mindful that any future project should include sufficient personnel to provide a regular, if not daily, presence with schedulers as part of the data collection portion of the project. Having such a person dedicated to recruiting potential participants to the research project, as well as presenting to interpreters (even consumers and consumer agencies), would likely prove more effective in gathering participants and willing, informed consents.

Another avenue was to alert members of the deaf community that we would like to film interpreted encounters that were not too private or personal. This resulted, for example, in participation by an individual who had several on-going appointments in one setting and granted us permission to film three of these. A benefit of this approach was that the deaf participant was instrumental in gaining the permission of the interpreters and English-speaking professional. In our small pilot study, our efforts to advise people of our research were ongoing. As in the case of interpreting agencies, the effort required to recruit from within the deaf community would benefit greatly with personnel who are provided more time than we had. We acknowledge the level of trust any deaf person, as a member of a minority community, must have to let us film, and in part, as a result of the need for a respectful collaboration within the research project, the level of commitment, time and geographic availability are worth dedicated personnel; in fact, collaborating with deaf interpreters and other members of the deaf community should be requisite to a large scale project attempting to gather a large corpus of interpreted encounters.

A third approach that we incorporated into our study was to pursue filming outside of our immediate geographical area. Our recruiting for participants covered Texas, New York, Maryland, Virginia, and Washington, DC. Given that there were primarily two of us working within the pilot study, we both traveled to other locations and visited interpreting agencies and colleagues. In one state, a local interpreting agency provided opportunities for filming but often simply called the interpreter and told that person that a researcher was coming. When we showed up to film, we had to give brief explanations of what we were doing, the other participants had to be asked at the last minute about permission to film, and often

one or more of the other participants declined to participate in the study. The time required to fully inform all the participants was more than the agency was able to give us, which again demonstrates the necessity of including personnel available who are dedicated to the recruiting process. Moreover, in a larger study, we would indentify key locations for data collection and include research team members local to those locations so that a regular presence is available not only for recruiting purposes, but also to be able to capitalize on last minute meetings and appointments that might be filmed.

In pursuing all possibilities of participation, allocating enough time to focus on one particular group of participants was, predictably, challenging. Clearly, in future attempts to gather a larger corpus of data, research teams should be gathered not only on the basis of region/locale, but also on the basis of setting: those who specialize in educational settings are best qualified to gain entry into those settings in an appropriate manner, as are those specializing in health care, legal settings, etc. Thus, once again, having a research team with sufficient personnel is critical to gathering a corpus of interpreted interactions for future study.

Actual filming and camera angles

We had hoped to film using two cameras in order to capture both participants as they talked. When filming speakers who use ASL, it is necessary to see the entire face and upper body given the exigencies of a visual language. If participants face each other, interpreters generally stand or sit beside the person using English, facing the deaf speaker. In order to fully capture each participant's verbal and non-verbal behavior, there should be two cameras, one facing each participant. However, many rooms in which we filmed were too small or too crowded to set up two cameras, so we were left to use one camera. Using one camera often resulted in losing some aspect of the signed language message. Small rooms with furniture or equipment and participants who moved around the room made it difficult to find a suitable place to film while also posing a problem for how many people could fit into one room.

The images below capture some of these challenges we faced when actually filming. All three pictures are from a video recording of a single dental appointment. In Figure 1, the deaf patient is sitting in a reclining chair, the hygienist has a seat next to this chair, and the interpreter remained standing, as there was no "extra" chair. The person holding the camera had to remain at the door filming across the deaf patient to capture the interpreter.

Figure 1. Still image of deaf patient, interpreter, and hygienist

As can be seen from the photo, the room is crowded with the patient chair and equipment, cabinets and shelves. The hygienist is kneeling to retrieve some supplies and the patient is sitting. The camera had to capture this situation with a full frontal view of the interpreter only. The Deaf person's signs can be seen but not the facial expression. Although the entirety of the messages may not have been captured, as analysts we can make educated guesses about the full message based on the response of the hygienist and the interpretations of the interpreter. During this particular appointment, the deaf patient had to change rooms. Once the session with the hygienist was over, the dentist conducted his examination in another room. Again, the room was small, although sunny, and crowded with equipment, while yet another person assisted the dentist (Figure 2).

The interpreter again had to stand facing the deaf patient, and was not able to be close to the dentist or the assistant. The cameraperson had to stand in the doorway filming the interpreter over the head of the patient so again the ability to record frontal views was restricted. For the most part, the camera microphone captured what was said in English but occasionally, if a drill or other equipment was noisy, or radio music was playing, utterances were missed. This last point is a reminder that in any naturalistic language data, the environment can pose barriers to the quality of sound (or picture).

In the Figure 3, the patient and dentist are exchanging closing messages and saying goodbye. The camera was still in the doorway and thus we got a side view of all the participants with the interpreter standing beside the doctor.

While filming small, face-to-face meetings the rooms were frequently small, crowded with furniture or equipment, and the camera could not be placed at

Figure 2. Still image of assistant, patient, dentist and interpreter

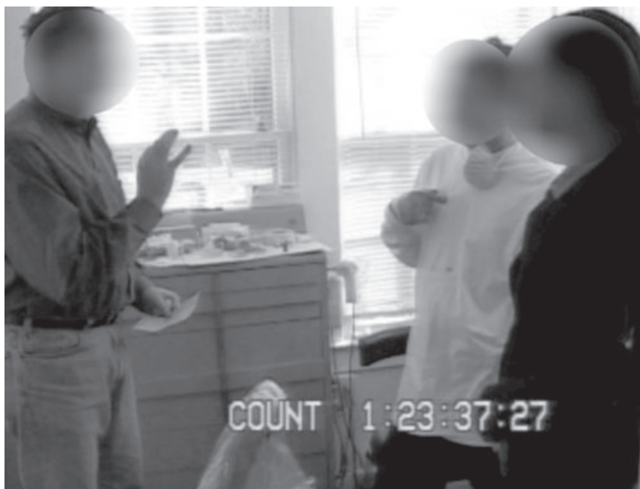

Figure 3. Still image of deaf patient, dentist and interpreter

an optimal angle or capture everyone as they talked. In many cases, filming had to be shot over the shoulder of the person or by moving the camera back-and-forth between the person who spoke English with the interpreter nearby and the deaf person. When the camera had to move back-and-forth, as one might predict, the first part of utterances were often missed, as well as short responses and feedback responses.

As technology improves, more options become available for filming in small and crowded spaces. More cameras are being developed that are able to record 360 degrees and view interactions more holistically. A future study would clearly benefit from the results of these improvements in technology. Nonetheless, for decades, sociolinguists have faced the challenges inherent in the collection of naturalistic data. One strategy for triangulating the findings of data susceptible to these impoverishments is to combine methodological approaches. A future study focused on gathering a corpus of naturalistic data might adopt some of these approaches, including but not limited to the use of playback interviews with participants (see for example Roy 2000), which could add insights to the analytical process.

A final note about filming, many researchers have noted that with audio recordings, participants often forget the machine is recording. In many of the small, face-to-face situations, the camera and camera person were vivid presences in each encounter, and it seemed as though participants spoke more, created innocuous questions, or generated small talk in order to create activity for the camera, rather than what might have been a typical period of silence. Labov (1972) discussed this Observer's Paradox, in which the presence of the researcher skews the behavior of the participants. Until video cameras are small enough to reduce the impact of their presence, future studies might benefit from repeated visits to one site. Our filming two times in one office enabled the participants to grow more relaxed with the presence of camera and researcher, reducing the occurrence of utterances seemingly swayed by our presence.

Transcription

While transcription is never easy and always time-consuming, with interpretation there is the additional concern for how to organize the transcript to represent the multi-party interaction and its progress. In our language combination, another difficulty arises from the lack of standardization in transcribing ASL. The need to include visual and spatial information in ASL, prosodic information in English, and the need for consistency, are among the concerns (Winston and Ball 1994) when transcribing interpreted interaction. Because ASL has not established a written form, because of the use of multiple articulators (including the hands, eyes, mouth, and eyebrows), and because there is not always a full, frontal view of an ASL speaker, written transcription can lose more of the original than it captures (Metzger 1999a).

Our first concern in creating a transcription for our study was to represent the interaction as it unfolded. As Ochs (1979) suggests, we based our transcription on our goal – to observe and describe the interaction as a whole, and to analyze the interpreters' utterances as they interact with all participants' discourse. We chose the musical score format used by Metzger (1999a). As described by Ehlich (1993), the musical score format allows the sequence of events to unfold from left to right on a horizontal line which is numbered, while the list of participants occurring from top to bottom allows each person's utterances to be captured as the moments of talk progress. In Metzger's transcriptions, the interpreter has two lines, one for rendering English to ASL and one for rendering ASL to English, and both lines are at the bottom of the list of participants. For the transcriptions of this project's encounters, we decided to re-arrange the interpreter's renditions, putting the English rendition under the ASL utterances, and the ASL renditions under the English utterances. Figure 4 is an example of one line of a transcript from the dental appointment mentioned above (filming).

Participants	**Time**					
	0:07:05:00	0:07:06:00	0:07:07:00	0:07:08:00	0:07:09:00	0:07:10:00
Deaf person-ASL			FOR-FOR THAT	FOR-FOR		
Interpreter-English				And what is that for?		
Hygienist B-English				So I can	pull the tongue right?	
Interpreter-ASL						[CL:G (pull tongue out)] FOR

Figure 4. Sample transcription of data using musical score format

In our transcripts we marked off seconds and minutes, but not parts of seconds. Thus, participants could often say or sign more than one might expect. In the example above, at 0:07:08, the Deaf person, the interpreter, and the hygienist are all talking during the same second. As the deaf person repeats the sign "FOR-FOR [English: *what's that for*?, the interpreter interprets what was said in 0:07:07 – "what is that for?", and the hygienist begins, "So I can". The hygienist completes her utterance and the interpreter begins an interpretation of that utterance (0:07:10) on the bottom line.

In Figure 5, the first block of time is from 0:20:29–0:20:49, which was the length of time in which no participant was talking and the hygienist is working on the patient. Then, at 20:50, the hygienist asks, "Is he comfortable with the seat back?" The interpreter says, "I'm sorry?", leans forward, looks at the hygienist, and the hygienist paraphrases the same question.

Participants	Time					
	0:20:29:00	0:20:50:00	0:20:51:00	0:20:52:00	0:20:53:00	0:20:54:00
Deaf person-ASL	**[silence until 0:20:50:00]					
Interpreter-English			[clarification]: I'm sorry?			
Hygienist B-English		Is he comfortable with the seat back?		Is he comfortable back	this far?	
Interpreter-ASL			PRO-2		PRO-2 FEEL	COMFORTABLE

Figure 5. Sample transcription of data with periods of silence

Participants	Time					
	0:21:24:00	0:21:25:00	0:21:26:00	0:21:27:00	0:21:28:00	0:21:29:00
Deaf person-ASL			THUMBS-UP	[f-handshape (GOOD)] THUMBS-UP	THUMBS-UP	THUMBS-UP
Interpreter-English			[to hygienist]: You're welcome,	You can do it just like	that. INDEX-to Deaf person	Yea, just like that.
Hygienist B-English						Like this? [imitates interpreter's INDEX]
Interpreter-ASL		W-E-L-C-O-M-E	KNOW THANK-YOU INDEX-to Deaf person		INDEX-to Deaf person	INDEX-to Deaf person

Figure 6. Transcription of multiple participant talk

The dental appointment lasts a little less than one hour and 24 minutes. The transcript has approximately 3000 individual lines and was put into an EXCEL file. A native English speaker transcribed the English, and a native ASL speaker transcribed the ASL, and then, inserting the utterances into the appropriate time frame was done by one or both transcribers. Because our transcribers were graduate students, they were also encouraged to notice interesting occurrences and make notes for us. So, in this transcript, they noticed long gaps of no talking and created the transcript box with no lines to represent periods of silence.

In Figure 6, the transcript reflects a discussion of how to say, "you're welcome." The hygienist has said that she knows how to say "thank you" but she doesn't know how to say "you're welcome." When the interpreter interprets that, the deaf person gestures with a closed fist and thumb up – a gesture easily recognized by Americans. Then, in the last time box, 21:29, the interpreter is speaking English and pointing to the deaf person. In this particular time spot, everyone seems to be speaking; however, the deaf person and the interpreter are both using gestures (on ASL lines), while the interpreter and the hygienist are speaking at the same time.

The interesting question here is should 21:29, the last line: "INDEX-to deaf person" belong in the line for English or the line for ASL? A deaf transcriber perceives the pointing gesture as a part of ASL, while another perception could

argue that it is a gesture designed to accompany the English utterance, "yea, just like that." "That" which is a frequent deictic term in English that requires contextual information, such as pointing, in order to make its interpretation clear.

Transcription of interactional discourse always brings the challenges associated with overlapping talk; transcribing interpreted interaction constitutes ongoing overlapping talk, as it is the nature of simultaneous interpreting to overlap with a signer or speaker while interpreting for an addressee, usually with some time lagging behind the source. Our approach to transcription has served the project well. Current technology offers additional options for future projects, including but not limited to ELAN (a language archiving transcription system) for the creation of complex annotations on video resources), which allows the transcriber to link the video and related transcription with time codes.

Coding

As we initiated coding, we pursued features of interpreted discourse that we had identified in previous studies: turns (Roy 1989) and source attributions (Metzger 1999a). We decided to begin by tallying and counting the number of speaker changes or turns, and the number of changes among the speakers of English since there were three different participants who spoke English. We also looked at the number of times the primary participants spoke simultaneously, the number of times speakers of English spoke simultaneously, the number of times the interpreter spoke for herself, or was unclear about who was speaking. These features were significant areas within Roy's study.

In Figure 7, we provide a chart with the tally of simultaneous speaking/turns, interpreter turns, and the number of times it is unclear if the interpreter is speaking for self or another participant.

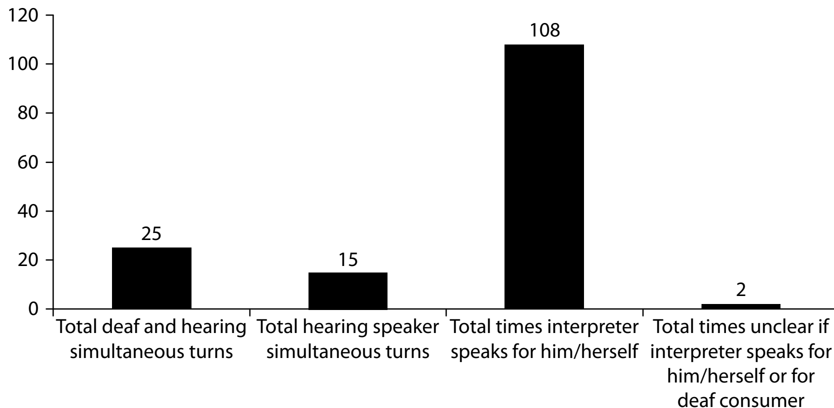

Figure 7. Tally for speaker turns

Speakers exchanged turns 454 times during the one hour and twenty-four minute appointment. The primary participants spoke simultaneously twenty-five times. Participants speaking English spoke simultaneously fifteen times. The interpreter spoke for herself a remarkable 108 times which is accounted for by the length of time the deaf patient and the interpreter were left alone in the examining rooms. They often chatted informally; other speaking turns were for clarification, repetition, and other talk or turn management reasons. Our coding assistant coded only two times that it was unclear whether or not the interpreter was speaking for herself or interpreting. The percentage of time they spend speaking is probably determined by a number of factors but it seems likely in medical or dental situations that interpreters may encounter vocabulary that they are unaccustomed to on a regular basis and so must ask for clarification of pronunciation or spelling.

In another tally we counted the number of times the interpreter informed the deaf patient who was speaking and how many times the interpreter did not explicitly inform the deaf patient – significant features in Metzger's study. These numbers are represented in Figure 8.

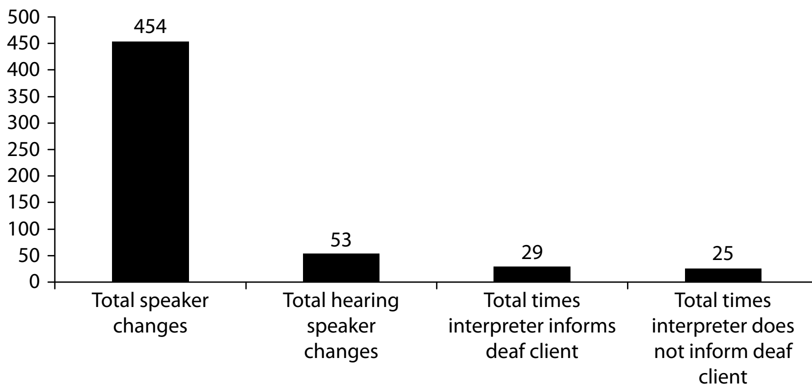

Figure 8. Tally for source attributions in Dentist Appt. #1

We tallied for how many times the interpreter explicitly informs the deaf patient who is speaking (N = 29) and how many times the information is not explicit (N = 25). The interpreter does not create an utterance to clarify for the English-speaking interlocutor whether an utterance originated from the patient or the interpreter, a finding that mirrors Metzger's (1999b) findings in an interpreted mock interview.

As we continue to code these face-to-face interactions, we will continue to code and tally these specific occurrences for each specific setting and then across

settings. It is our hope that in this manner we can gain a deeper understanding of interpreted interaction with regard to the features found in previous case studies and studies in spoken language interpreting.

Analysis

For years the focus of our analyses has been in demonstrating that interpreters are active participants within an interpreted event. Mostly we have pointed out how they are active in communicative ways, by managing communication – resolving turns, indicating source attributions, requesting clarification, and more. In the dental appointment we have been discussing, we would now like to turn our attention to, first, the strategies used by the interpreter to deflect focus on her as a direct participant, and then on the ways in which she invites and colludes with the deaf patient as a conversational partner (McDermott and Tylbor 1983).

We are returning to the dental setting that we have used in prior discussions, and will describe it in further detail. Although the deaf person has come for a regular check-up visit to the dentist, he is also here because a tooth has become painful. The dentist and this office are familiar to him, as he has come here many times in the past without an interpreter. His interpreter in this encounter is a certified interpreter whom he has met before. The dentist has seen the deaf patient many times in the past but has never done so with an interpreter. The hygienist is a young woman who has not seen this deaf patient before, but has met deaf people, and she will clean his teeth before he sees the dentist. Another woman who assists the dentist is the dentist's wife and has also met the deaf patient many times. She maintains the office and assists the dentist as he works on fillings. This appointment lasts one hour and 24 minutes.

The appointment is in late December and Christmas music is playing as patients come and go and the professionals work on patients. The dentist's office is in a small house in a local neighborhood and so the offices are former small bedrooms. Equipment needed for dentistry fills the rooms along with the patient chair, stools for the dental professionals and cabinets for supplies. In the rooms it is possible to hear others moving about the house.

Now, in addition to an interpreter, there is also the researcher with a camera. The rooms are so small that there is not enough room to maneuver both people and camera so as everyone finds a place, the researcher must stand in the doorway in order to see all the people involved. The camera angle is over the shoulder of the deaf patient, while the hygienist sits to one side and a full frontal view of the interpreter (see Figure 1).

Are you human?

The session with the hygienist takes approximately forty minutes. As she begins to work, she explains that she has learned to sign a little bit. From that moment on, she frequently returns to topics associated with signed language and deaf persons throughout the session. This will be difficult for the interpreter because often the person who is learning a signed language does not articulate well so it is hard to distinguish what sign(s) they are using, or if they use the wrong sign, or an odd version of the correct sign. In this example, she has decided to sign directly to the patient:

> Hygienist (speaking and signing at the same time): ARE PRO (you) HUMAN
> Are you healthy?
> The deaf patient responds in ASL and with a smile: HUMAN, YES.
> (the deaf patient and hygienist smile and nod at each other)
> Interpreter (in English): Yes, I'm healthy.

The deaf patient answers, "Yes, I'm human" while smiling broadly, and the interpreter quickly inserts, "Yes, I'm healthy." And then, just as quickly, tells the deaf patient that the hygienist meant "healthy" and the deaf patient nods, smiles, and responds again, "yes, I'm healthy." The signs for HUMAN and HEALTHY begin in the same location and we can be reasonably assured that the deaf patient knew the question was not intended as "are you human?" Nevertheless, both the deaf patient and the interpreter, perhaps knowing that a discussion of the sign used and/or the correct sign could potentially take up valuable time, say nothing, offer no correction, and the conversation moves on. This is a common experience for deaf persons to meet someone who has learned a few signs, and now both the interpreter and the deaf patient know there is likely to be more conversation and questions about signed language.

Interpret or answer?

Interpreters are bound by their code of ethics to be neutral, non-involved participants. Becoming involved conversationally with either primary participant can lead to difficult situations that raise ethical concerns. For that reason, interpreters often strive to avoid conversational opportunities with the participants. In actual situations, when interpreters are asked direct questions, or have a comment directed at them, interpreters have at least two choices: one, use a strategy designed to avoid becoming a conversational partner, or two, engage in conversation, and do so in a manner that shortens and terminates the conversational exchange.

As is typical in interpreted encounters, the hygienist appears not to have used the services of an interpreter before. She also has a mask over her mouth as she works, and turns frequently to look at the interpreter as she talks. Early in the conversation, she says, "…so, you can tell him that" and then soon after, "tell him…." And then moments later, turns to the interpreter and says: "It's good you're here. We can get everything done. I can't always convey everything that quickly. I'll go fast around this tooth."

As Metzger has noted (1999a), at some level, her utterances, "tell him" and her acknowledgement of the interpreter's task are indications that she frames this appointment as an interpreted encounter, although demonstrating a schema for interpreted interaction that differs from the schema common to interpreters and deaf consumers. Rather than looking at the deaf person whom she is facing, she frequently turns to the interpreter and engages in small talk and explanations. As Roy (2000: 80) has noted before, she seems to "learn" that instructions, such as "tell him" are not necessary and although she does utter, "you can tell him…" again, she does so when she is behind him and knows he cannot see her talking.

At another interval, the hygienist signs "OK" to the deaf patient but looks immediately to the interpreter who looking at the deaf patient and gesturing "thumbs-up." In more than thirteen instances, the hygienist physically turns to the interpreter and offers a comment, or asks a question of the interpreter. Twice, when she looks at and then addresses the interpreter about learning the ASL alphabet, she also turns and looks at the researcher who is holding the camera, an acknowledgement of the physical presence of both.

In most instances, even when a question is directed at the interpreter, the interpreter does not engage or respond to the hygienist, other than to render an interpretation. The interpreter does not make eye contact, but passes on a rendition of what the hygienist says. Sometimes this strategy does not work well.

In the transcription in Figure 9, the hygienist asks, "do you take classes with /inaudible/?" and looks at the interpreter while she asks. The deaf patient had already been identified as a teacher at a nearby university so it seems unlikely that the hygienist is asking the deaf patient. However, the interpreter renders this question as a direct question to the deaf patient, "do you take classes with you all?" And he replies [English translation, "no, I'm finished, finished with school so I'm teaching class now, that's all, just teaching." The interpretation into English is "No. No no. Yeah yeah. Yeah. School's done so I'm just teaching class." The hygienist responds, "Wow," and then everyone is silent.

Participants	Time					
	0:15:49:00	0:15:50:00	0:15:51:00	0:15:52:00	0:15:53:00	0:15:54:00
Deaf person-ASL						
Interpreter-English						
Hygienist B-English	Do you	take classes with… (inaudible)				
Interpreter-ASL				[Deaf person's sign name] TAKE-UP	CLASS WITH	YOU A-L-L

Participants	Time					
	0:15:55:00	0:15:56:00	0:15:57:00	0:15:58:00	0:15:59:00	0:16:00:00
Deaf person-ASL		[shakes head no] FINISH		FINISH WITH	SCHOOL	FINISH S-O PRO-1 TEACH
Interpreter-English		No.	No no.	Yeah, yeah.		Yeah.
Hygienist B-English						
Interpreter-ASL						

Participants	Time					
	0:16:01:00	0:16:02:00	0:16:03:00	0:16:04:00	0:16:05:00	0:16:07:00
Deaf person-ASL	CLASS THAT'S-ALL	TEACH				[nods]
Interpreter-English	School's done	so I'm just teaching classes.			**[silence until 0:16:07:00]	Yep.
Hygienist B-English			Wow.			
Interpreter-ASL				W-O-W		

Figure 9. Transcription of question/answer pair

Our approach in thinking about this example and the others like it is through participation frameworks and the notion of footing as proposed by Goffman (1981). Goffman defines footing as "the alignment we take up to ourselves and the others present as expressed in the way we manage the production or reception of an utterance" (1981: 128). Speakers who have an official place within a social encounter are ratified participants who indicate their alignment, or footing, to each other via talk. In this event, all three participants are ratified participants, but only the interpreter must negotiate differing alignments with each of the other participants. Within an interpreted event, the interpreter can act as a direct interlocutor with each participant, or act as one who relays messages.

Acting as a relay with both primary participants is one type of footing. While these questions can come from either the hearing or the deaf interlocutor, and examples of both occur in the data, they are somewhat different in character. In the example above, the hygienist turns, looks at the interpreter, and asks a question, "Do you take classes with /inaudible/?" Given that the deaf patient and the cameraperson were identified as teaching colleagues at a local university, and the interpreter is a young woman, the use of the personal pronoun "you" and a direct gaze at the interpreter seems to indicate that the question is directed to the interpreter, as in "do you take classes with them?"

The interpreter does not respond to the hygienist's question, but rather produces an utterance in ASL, which becomes a different question directed at the deaf patient: “do you, (DP’s name), take class with us?” At first, there is no response, then the patient answers about his experience, “no, I’m finished” which, while providing “no” to the yes/no question, continues with information that does not really answer the question (he had been in graduate school but the hygienist did not know that). The hygienist can see that the interpreter is signing and the patient is signing, and she now looks back-and-forth while waiting for a response. When the interpretation is rendered with multiple “no” and “yeah” and then “School’s done so I’m just teaching classes”, the hygienist says, “wow” and returns to working on the patient’s teeth and there is silence for two minutes.

This is one of several times that questions seem to be directed at the interpreter, but rather than reply directly, which would align the interpreter as the intended interlocutor with the hygienist, the interpreter maintains her footing as the one who relays utterances between primary participants. The hygienist is left to make sense of a response that does not make sense given the question she asked.

This example, and others like it, differs somewhat from those occurrences in which the deaf patient asks a question of the interpreter. The only time the patient treats the interpreter as an addressed recipient is when the hygienist is focused on another task or temporarily out of the room. When this occurs, the patient and the interpreter engage in conversation, and the questions are about the type of music in the room or plans for the holiday. These questions are not relayed to the hygienist even when she is in the room and searching for a piece of equipment. Thus, the interpreter acts as a direct participant and a “relayer” with the deaf patient, but not with the medical personnel.

Throughout the appointment, the interpreter appears reticent to actually respond to utterances from the hygienist or dentist, and steadfastly maintains the role of relaying utterances only, thus reducing shifts in footing for her. Turning questions to her into questions for the deaf patient is the strategy used most frequently by the interpreter in her attempt to cope with questions and comments directed to the interpreter from the medical personnel.

This strategy is never used with the deaf patient. The patient is, of course, well versed in how to use an interpreter, and he colludes with the interpreter in keeping conversational talk separate from talk with the medical personnel. The interpreter appears to frame her participation with the deaf and hearing interlocutors in two different ways. Other evidence for this consists of the numerous (N = 108) self-initiated turns by the interpreter, many of which were exchanged with the deaf interlocutor. With the deaf person, the interpreter engages in conversational exchanges that reflect her footing as the direct recipient of the talk.

This presents an interesting paradox for interpreters. Does the interpreter feel free to shift her footing between interpreter and direct interlocutor with the deaf patient because the two of them know and are familiar with the boundaries of interpreted conversations and events? Does the interpreter adhere to her stance as relayer only with the medical personnel precisely because participants who speak English are unaccustomed to the act of interpreting and thus, likely to treat the interpreter as a ratified participant? Does the interpreter feel that conversing with these participants jeopardizes a relationship of trust with the deaf participant? In a participant-based frame of an event, the interpreter's footing shifts with the primary participants provide some insight into the negotiation of the interpreter's paradox (Metzger 1999a).

Examination of the functions of footing with each interlocutor suggests that the interpreter frames the interaction in two ways: interpreter-deaf participant and deaf participant-hearing participant. The interpreter attempted to avoid interpreter-hearing participant interactions so strongly that she almost never responded to interpreter-directed questions from the hygienist. Metzger (1999b) posed the question of whether or not this type of framing occurs in real interpreted encounters, and what effects such an asymmetrical perspective has on the interaction, as an area for future research. Our research demonstrates that this does indeed occur in actual interpreted interactions, and, although there were glitches, overall, this interaction, like many, was successful.

The findings here are consistent with the findings of Metzger (1999a) in her study of an interpreted medical encounter. In future research, with a larger corpus of data, it would be beneficial to attempt to identify patterns within which various types of footing shifts occur, and within which interactional outcomes appear to be effectively realized.

Conclusion

As our title suggests, three years into a three-year grant has produced intense experiences in collecting data, in navigating the challenges and hurdles of recording interpreted interaction. In addition to feeling as if we have just begun, though, we realize that we have garnered the experience needed to develop a larger scale project designed to collect a much larger corpus of data. While we were successful in achieving the project goals, we would have liked to record more of the smaller, face-to-face, three-to-four participants interactions, and to be further along in our investigation of, in the words of Becker (1988), the "particularities" of these interactions. However, we have gathered a corpus of data that we can continue to examine for years, and this three-year project could

easily produce interesting and useful findings for many years to come. We hope to continue to analyze these data, and may well report on the second three years of a three-year research grant one day.

Our experiences with all parts of the research process have led us to make a number of recommendations. Thus, in a future study aiming to gather a corpus of interactional signed language interpreting data, we would make the following recommendations:

- Include sufficient personnel and/or time to prepare consent materials in both English and ASL.
- Allow for sufficient time (and have sufficient personnel) to explain the research process and consent materials.
- Allow for sufficient time and/or personnel to prepare materials for a second IRB review.
- Consider having a team of people, including sub-teams with expertise in specific settings, to participate in the design, IRB proposal(s), data collection and analysis of each setting.
- Use video technology that is as non-intrusive as possible, attempting to capture frontal views of all signers when possible.
- Incorporate methods that can help to account for the limitations of video recording, such as playback interviews (Tannen 1984; Roy 2000).
- Film repeatedly in a location with the same participants to reduce the Observer's Paradox.
- Use transcription processes that allow for the overlapping nature of interpreted discourse.

Moreover, in a larger study, we would recommend indentifying key locations for data collection and including research team members local to those locations so that a regular presence is available not only for recruiting purposes, but also to be able to capitalize on last minute meetings and appointments that might be filmed. Gathering naturalistic data in the study of interpretation is, predictably, a complicated and sensitive task. For this reason, we are in favor of the notion of developing a corpus of data that could be shared among researchers for the purpose of fostering an increase in the quantity and scope of data-based, interpreting research. Such a project has the potential to deepen our understanding of both research methodologies as they pertain to interpreting studies and sociolinguistic processes inherent in interpreting practice.

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Appendix A

INFORMED CONSENT
For Professionals with Confidentiality Protection

Project Title: Investigating Interactive Interpreting
Principal Investigator: Cynthia B. Roy, Ph.D.
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We are faculty members and researchers in the Department of Interpretation at Gallaudet University. We are conducting research on interpreted conversations in different settings, such as medical, legal, educational and others. We hope that this study will add to our understanding of the role and responsibilities of an interpreter and define the instructional content of our interpreting courses. We hope you will consider participating in this study and help us add to our understanding about participating in an interpreted conversation.

For this study, you will be asked to allow a researcher to record, transcribe and analyze a videotape of the meeting you attended. You are also allowing part-time transcribers/research assistants hired for this project to view the videotape and who will follow the same rules below.

The researchers and their assistants promise to:

1. Keep your participation confidential, use a false name in the transcript, and not to show any portion of the videotape without your consent;
2. If you choose not to participate, you may let the primary investigator know and the video copy will be destroyed;
3. Keep both video and written records in a secure and locked location;
4. Provide copies of all publications resulting from this study.

IMPORTANT: By making this videotape, we are creating a record of your advice or counsel. If this interaction becomes subject to litigation, the videotape may be subpoenaed. Your client or patient may lose their right to privilege if this information becomes subject to litigation as well.

Questions about your participation or any risk to you because of participation in this study may be addressed to the primary researcher, Cynthia Roy, at the phone number or e-mail account at the top of this consent form, or the Chairperson of the Gallaudet University Institutional Review Board for the Protection of Human Subjects (IRB) at 202-651-5400 (v/tty) or irb@gallaudet.edu.

I have read the Informed Consent Form and agree to participate in Cynthia Roy and Melanie Metzger's study of interpreting situations and the role of the interpreter. I understand that I can withdraw from this study at any time without penalty or prejudice. I also understand that this form will be renewed annually.

Appendix B

VIDEOTAPE RELEASE FORM

I, ___________________________________, agree to be videotaped as part of my participation in the study, "Investigating Interactive Interpreting" conducted by Cynthia Roy and Melanie Metzger. I understand that only the primary researchers and their assistants will view the tapes and that the videotape will not have my name on it and will be identified by a code number. When the study is finished, I further agree to one of the following options:

1. my participation will continue to be confidential and the researchers may use a transcript of the interaction in order to re-create what happened for educational purposes and for graduate student research;
2. the videotape of my participation will be kept in an archive and may be used for educational purposes and for graduate student researchers to conduct further research;
3. the videotapes of my participation will be destroyed.

_____________________________________ ________________

Participant's Signature **Date**

Methodology in interpreting studies

A methodological review of evidence-based research

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Many review articles have been written describing the growth and development of the field of interpreting studies. Few, though, focus on methodological issues. Methodologies for interpreting research have become increasingly diversified in recent years and warrant close examination. This methodological review analyzes 48 evidence-based studies published in the journal *Interpreting* during the period 2004–2009. The sampled articles are coded and analyzed in terms of the approach and methodology adopted, variables or constructs analyzed, data collection instruments used, and ways data is analyzed and presented. The article concludes with a discussion of the trends in research and potential improvements in the methodological rigor in interpreting studies.

Introduction

Although the field of interpreting studies has seen no lack of review articles documenting the development and trend of its research (e.g., Gile 2005, 2006; Pöchhacker 2008), there have been few articles that specifically target and address methodological issues. As the field of interpreting studies has become more diversified in recent years in terms of the use of methodologies, a methodological review seems opportune and necessary.

Methodological reviews use research methods as data and thus empirically describe the research practices in a field. Such reviews can help identify methodological trends and make suggestions for improving research practice in a field. This study analyzes a sample of 48 articles published in the journal *Interpreting* during the period 2004–2009. Despite the number of articles in collective volumes seeming to outnumber those in academic journals (see Gile 2006 for evidence of

this trend in research in conference interpreting),[1] my choice of focusing on articles in an academic journal is based on the following rationales: (1) academic journals systematically publish research results and thus are better positioned to reflect research trends in a field; (2) peer review is used in academic journals to ensure higher quality in their content; this is not necessarily true of collective volumes; (3) more rigorous writing standards are usually required of academic journals, which are monitored by the editors.

The field of translation and interpreting studies has seen a rapid growth in the number of journals in recent years, particularly those representing different regions of the world and those available in on-line, open-access formats. My choice of using *Interpreting* from which to draw samples of articles was based on the following rationales: (1) *Interpreting* is a journal dedicated to research in interpreting studies,[2] thus making it an ideal journal to survey recent developments in this field;[3] (2) *Interpreting* primarily publishes evidence-based studies, which are the focus of this methodological review; (3) *Interpreting* has maintained a high standard, thanks to the efforts of the two editors, Miriam Shlesinger and Franz Pöchhacker.

Among the 12 issues of *Interpreting* published from 2004 to 2009, there are three special issues on healthcare interpreting (Volume 7, number 2, 2005), court interpreting (Volume 10, number 1, 2008), and works by Chinese scholars (Volume 11, number 2, 2009) respectively, reflecting the emerging importance of these interpreting contexts and regions. Gile (2006) predicts the relatively declining role of conference interpreting in interpreting studies compared with community interpreting. This trend is evidenced by the fact that articles on community interpreting comprise approximately half of the total number of articles published in *Interpreting* during this period. Comparatively, less than one-third of the articles are on conference interpreting.

In an article reviewing the ten issues of *Interpreting* published from 2004 to 2008, Shlesinger (2009) describes the wide range of themes, paradigms and

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1. Gile (2006) tabulated the number of articles of conference interpreting in journals and collective volumes, among other publication forms, from 1970 to 2004. The number of articles in collective volumes is 138% of that in journals (p. 14).

2. *Interpreting: International Journal of Research and Practice in Interpreting* was first published in 1996 by John Benjamins. Publication was suspended in 2002 and resumed in 2004.

3. The other journal that is also devoted to interpreting studies is *The Interpreters' Newsletter*, published by Trieste University in Italy. This journal dates back to 1988 and has published one issue per year for most years. However, publication has not been steady as of late, with some issues coming out every two or three years.

perspectives that emerged in interpreting studies during those years. This phenomenon, in her words, "would have baffled our predecessors of fifty – even fifteen – years ago, and the vogue words and jargon would have sent them running for their dictionaries" (p. 5). Indeed, articles published in the past five to six years on interpreting have reflected a widening range of settings (e.g., conferences, courtroom, healthcare, media), perspectives (e.g., socio-cultural, cognitive, linguistic) and themes (e.g., cognitive processes and strategies, roles of interpreters, discourse features of interpreting, screening, testing and training of potential interpreters, perceptions of interpreting quality) (Shlesinger 2009: 7).

Among a total of 53 articles in *Interpreting* during this period,[4] 48 can be considered evidence-based studies, of which research conclusions are drawn from systematic analysis of data derived from observations. The five other articles are theoretical (Grbić 2008; Rudvin 2007), and descriptions of practice and training in interpreting (Ko 2006; Morris 2008; Mouzourakis 2006). This is a clear sign of the increasing dominance of evidence-based studies in the field of interpreting studies, which reflects a healthy development and a positive trend in the field.

Shlesinger (2009) briefly discusses methodology across the ten issues of *Interpreting*. In addition to a quarter of studies adopting an experimental paradigm, other studies report using other research methods commonly used in social or behavioral sciences, such as discourse analysis and survey (Shlesinger 2009: 6–7). To extend the discussion on methodology and provide a more thorough analysis on the research approaches, methods, and tools used in these studies, this review uses both quantitative and qualitative approaches to present the different properties in research methodology.

The discussion on research approaches will be roughly divided between the qualitative and quantitative traditions. Under each research tradition, studies using different research methods are discussed along the lines of tools used to collect data, the nature of the collected data, how data is analyzed, and how the analyzed data is presented. The studies analyzed in this article will be discussed as a group under each methodology category. Some studies will be discussed in greater detail as they exemplify conventional or more standard ways of conducting research using a particular methodology. The article concludes with a discussion of the trends of interpreting studies research and ways that may help improve the methodological rigor in interpreting studies.

4. Not including reports, interviews and book reviews.

Research methodologies

With the increasing popularity of mixed methods research in social sciences, it is sometimes difficult to draw a line between qualitative and quantitative research approaches. Research now is "less quantitative versus qualitative and more how research practices lie somewhere on a continuum between the two" (Creswell 2003: 4). Many studies reviewed here adopt a mixed methods approach, that is, both qualitative and quantitative data are collected and analyzed. However, considering the fact that qualitative and quantitative research approaches have their distinctive features and underlying epistemological beliefs, and for the convenience of our discussion, studies that mainly use a qualitative approach or a quantitative approach will be discussed under each category respectively to better reflect the research trend in interpreting studies.

Qualitative approach

Among the 48 evidence-based studies reviewed, 26 use a type of qualitative research method. This shows the relative importance of the qualitative approach in interpreting studies. Most of these are case studies where content analysis or discourse analysis methods are used. Two studies (Chang and Schallert 2007; Shaw, Grbić and Franklin 2004) adopt a grounded theory method, in which a theory is generated from systematic data analysis. One is an action research study in which action is used as the research tool (Waters-Adams 2006) to find solutions to specific problems in specific situations. Three are historical studies (Lung 2008, 2009; Takeda 2008) where historical archives are analyzed to answer questions about past phenomena and one study that uses the interpretive analytical approach (Apostolou 2009) in the tradition of hermeneutics. Table 1 in the Appendix lists all 26 studies with their principle methodologies, main constructs, data collection methods and instruments, forms of data, and methods used to analyze data.

Case study

A case is considered a "bounded system," bounded by time and place (Creswell 1998: 37). Among the studies that use case study methodology, five examine either a single case or multiple cases in healthcare interpreting, five in court interpreting, and four in the general context or other specific contexts of community interpreting. There are only three studies on conference interpreting.

Most of these studies have the interpreter's role as the main focus of analysis. Some give equal attention to all participants' behaviors in triadic interactions. For example, Valero-Garcés (2005) examined interactions between doctors

and foreign-language patients, among doctors, foreign-language patients and untrained interpreters, and between foreign-language patients and untrained interpreters. A rare case is Christensen (2008), which investigated shifts in the discourse of judges. This is a new direction that interpreting research can take, as examining how non-interpreter participants react in an interpreter-mediated interaction can offer new perspectives on human communication.

Data collection and data. In contrast to many case studies in social sciences that use observation as a major tool to collect data, most of the case studies reviewed here employ indirect observation by analyzing recorded data in audio or video form. Only a few articles clearly specify the role of the researchers in the case studies, therefore it is often not clear if the researchers/authors were the people who did the observation and collected the data. In the cases where the authors indicate that the researchers participated in the study as either observers (e.g., Bot 2005; Leanza 2005; Lipkin 2008; Merlini and Favaron 2005), participant observers (e.g., Dubslaff and Martinsen 2005), or participants (e.g., Christensen 2008; Jacobsen 2008), the mention of their involvement seems to merely serve the purpose of documenting who collected the data. The presence of the researchers in the cases being studied is often not further discussed. In addition, field notes are rarely mentioned as a type of data being analyzed.

Transcripts of the recordings are the primary form of data in these studies. While transcripts can greatly facilitate the coding process, analysis solely done by reading transcripts has its limitations. As Merlini and Favaron (2005) duly mention, "Whilst transcriptions might help researchers detect patterns that would otherwise escape attention owing to the evanescence of the oral medium, only by listening to the audio-tapes and, even more, by being physically present can this atmosphere be fully appreciated" (p. 295). Indeed, one would assume that data analysis performed on recorded data after a researcher's on-site observation can provide many more insights and revelations than an analysis just done on recorded data. Additionally, the presence of a researcher can potentially affect the interaction of the participants. The readers need to know this information to arrive at a point where they can form their own assessment of the case.

In addition to the use of audio and video recording to collect data, interviews are the other major data collection instrument used in these case studies. Edwards, Temple and Alexander (2005), Berk-Seligson (2008) and Lipkin (2008) all used interviews as the main instrument to collect their data as these researchers were interested in the perception and experience of their participants. Angelelli (2006) used a focus group interview format to collect her data in order to tap into how community interpreters as a group saw the established professional standards and how they practiced according to these standards.

In addition to recording the interaction of the participants, Leanza (2005) also used retrospective interviews to collect data on the participants' views on their own roles in an interaction, and strategies used to cope with unfavorable working conditions in videoconferences (Braun 2007). Christensen (2008) used a questionnaire to tap into judges' views on their preferred forms of address, to be analyzed against the recorded proceedings in the courtroom. These studies' use of multiple data collection methods to collect different types of data, a process called triangulation, has a potential to greatly enhance the validity of their findings (Gall, Borg and Gall 1996: 574), because data collected by multiple methods and from different sources can be used for cross-checking.

A unique case is the Albl-Mikasa (2008) study in which the interpreter's notes are the primary data. The notes are seen as notation texts and, despite their fragmentary nature, are considered to be suitable to the method of text analysis like regular texts. In the study, the notes were examined against the transcripts of the source speech and the interpreters' target language renditions in terms of the underlying propositional representation.

Data analysis. As the case studies mentioned above frequently use transcripts of interaction or/and interview transcripts, and, in the case of Albl-Mikasa (2008), notes as their primary data, discourse analysis or content analysis is the main method for data analysis.

Typical of the method of discourse analysis, language produced in an interpreter-mediated event is viewed as a product of social interaction and is considered to be closely related to the context under which it is produced. The analysis often focuses on who is involved in the communication context, what is being said, and the effect of what is said. Particularly, how the interpreted version reveals and changes the power relationship among the interlocutors is the focus of the majority of the studies.

The interpreter's role is predominantly discussed in the context of community interpreting, including court interpreting (e.g., Christensen 2008; Jacobsen 2008; Lipkin 2008), healthcare interpreting (e.g., Dubslaff and Martinsen 2005; Merlin and Favaron 2005; Valero-Garcés 2005) and interpreting in other community settings such as asylum interpreting (e.g., Pöllabauer 2004). The only exception is Chang and Wu (2009) in which the role of conference interpreters is investigated. One may wonder if the discourse produced in conference interpreting is suited to the typical analytical perspective of discourse analysis. Comparatively, the role that a conference interpreter plays does not seem to allow rich investigation and discussion in terms of the mediator's role of the interpreter.

Category development and coding. One of the most critical steps in analyzing qualitative study data is to first develop a list of categories for coding the data. This process systematically compresses the many words in the data into fewer content categories based on explicit rules of coding (Stemler 2001).

A category is considered "a construct that refers to a certain type of phenomenon" in the data (Gall et al. 1996: 564). McKeone (1995) distinguishes *prescriptive analysis* and *open analysis*. In prescriptive analysis, closely-defined parameters are used to serve as the focus of analysis, while parameters for analysis are only identified from the content in open analysis. Analyses done in the studies reviewed here predominantly fall under a set of assumptions and hence parameters of analysis. Thus, in McKeone's categorization, these studies adopt the approach of prescriptive analysis instead of open analysis. Parameters of analysis in these studies include turn-taking (e.g., Merlini and Favaron 2005), the construct of *face* (e.g., Jacobsen 2008; Pöllabauer 2004), shifts in grammatical elements (e.g., Bot 2005; Chang and Wu 2009; Christensen 2008; Dubslaff and Martinsen 2005; Leung and Gibbons 2009), formulaic language use in interpreting (e.g., Henriksen 2007), and interpreting strategies (e.g., Braun 2007). These dimensions of analysis are either based on theories in related fields, or are related to existing analytic frameworks in the literature. Others use the results of past studies as explicit rules of coding. For example, Petite (2005) categorized her data by using Levelt's speech production theory (1989), and explained possible motivations of repairs by using Sperber and Wilson's Relevance Theory (1986). Merlini and Favaron (2005) used Mishler's (1984) *voice* as the general interpretive framework and adopted findings from the literature as the focus of their analysis, such as turn-taking (Roy 1996; Schegloff and Sacks 1973), interpreter's footing (Goffman 1981; Wadensjö 1998) and additions (Barik 1971; Wadensjö 1998).

Another strategy for developing a category system is to develop one's own categories. Researchers do this by studying their data carefully to identify salient similarities and patterns. This approach is used in grounded theory research as the categories and the subsequent development of the theory are *grounded* in the data. Two studies in this review fall under this category and will be discussed in another section.

Report. A case study report is usually characterized by "thick description so that the participants, events, and context come alive for the reader" (Gall et al. 1996: 583). The authors of the reviewed studies did this to various extents. For example, a clear and detailed description of the courtroom setting is depicted in Lipkin (2008), accompanied by a sketch of the structure of the courtroom. Merlini (2009) described in detail the setting of the study, a government office

where service to immigrants was provided. She described the types of services rendered, and how these services were provided through the arrangement of cultural mediators, and emphasized the cooperative context of the setting, all-important to the theme of her study. She also described the style and general attitude of the government employee, the education, language background and personal history of the mediator/interpreter, an immigrant himself, and the case of the asylum seeker. These descriptions are necessary and serve as an important backdrop for readers to understand the different roles these participants play in the interaction.

Christensen (2008) described the education and language backgrounds, training and experience of the interpreters in a court interpreting case study. She also described in detail the framework of the Danish court proceedings, which was central to her research question – use of direct or indirect speech styles by judges. Jacobsen (2008) described the rights granted to and requirements imposed on different participants by the Danish court, which was important to the theme of the study, i.e., power and face-work. Valero-Garcés (2005) chose to put the information about the settings and participants, including their language profiles and health issues, in a list. Merlini and Favaron (2005) presented a brief description of their cases, three speech pathology sessions, in a table. Ideally, the use of lists and tables can be used to supplement but not used in lieu of description in the text.

One important aspect of a case study report often missing in the articles reviewed is the description of how entry was gained into the field settings, and in some cases where more sensitive data is involved, how permission was granted to conduct research. Among the few articles where this information is provided, Edwards et al. (2005) described how they gained access to users of community interpreting from five different ethnic groups in the UK. Christensen (2008) described how access to some Danish courts was gained and the conditions under which the permission was granted. Merlini and Favaron (2005) chose to describe the entry and procedure of the research process in an endnote.

Most of the studies reviewed are effective in presenting the *voice* of participants in their case studies by providing many examples of utterances from the data. When presenting evidence by showing examples from the data, it is essential that both confirming and disconfirming evidence is shown (Creswell 1998). For example, Merlini and Favaron (2005) presented both marked and unmarked examples of turn-taking and acknowledged that the marked examples could be more interesting from the viewpoint of their study (p. 271–272).

Grounded theory

The intent of a grounded theory study is to "generate or discover a theory, an abstract analytical schema of a phenomenon that relates to a particular situation" (Creswell 1998: 56). There are two studies reviewed in this article that use a grounded theory approach. Shaw et al. (2004) were interested in studying students' perception of their readiness to enter an interpreting training program after language training. Chang and Schallert (2007) studied interpreters' strategies when interpreting from their B languages to their A languages and vice versa in simultaneous interpreting. Instead of relying on prior theory and research to guide the analysis of constructs, these two studies used the grounded theory approach to derive constructs directly from the immediate data.

Both studies employed multiple methods to collect their data. Shaw et al. (2004) used questionnaires and focus group interviews. Chang and Schallert (2007) collected their interpretation output data through experiments where the speed and general difficulty of the original speeches were manipulated. They also used a questionnaire to learn about the participating interpreters' language learning background. In addition, retrospective interviews were conducted for the interpreters to talk about the strategies used in the interpreting process. And finally, general interviews were used to find out the interpreters' general experience in interpreting in the two directions. As mentioned earlier, this practice of using different data-collection methods, i.e., triangulation, can greatly enhance the validity of the findings.

Data in these two studies were analyzed through the typical grounded theory coding procedure, i.e., from *open coding*, *axial coding*, to *selective coding* using the *constant comparison technique* (Strauss and Corbin 1998), by which categories of theoretical significance are identified and content is continually compared within and across categories (Gall et al. 1996: 566). As the validity of constructs emerging from the coding process is a major concern in this type of research, the results of each coding process should be checked against the research question. It is often not enough to have just one researcher do the checking. Better reliability can be achieved by having different coders or having a single coder perform repetitive coding practices (Weber 1990). Neither study specifically indicates whether more than a single coder was involved. However, Shaw et al. (2004) engaged a peer examiner to review the transcripts, codes, themes and resulting theoretical framework (p. 81) and volunteers from the participants to review the final report of the study. This practice can greatly enhance the *internal validity* of the study. One way to assure *external validity* is to collect data from more than one site. Shaw et al. (2004) adopted this multi-site design by collecting their data from two interpreting training programs. Another way to achieve external validity in a qualitative study is by providing rich descriptions in the report, as discussed in the previous section.

Action research
Similar to grounded theory research, action research can be used to study situations involving complex relationships between indiscrete variables, from among which crucial variables are often difficult to choose (Swepson 1995). Unlike grounded theory research, the "theory" resulting from an action research study is to guide some action to improve the situation, instead of being tested in the general sense (Swepson 1995).

True to the spirit of action research, Hansen and Shlesinger (2007) studied how the introduction of technology-assisted self-study sessions could help enhance student motivation and learning efficiency in a situation-specific, classroom-based study that actively involved the participants. Despite the authors' report that they did not start with an action study in mind (p. 97), this study generally exemplifies a typical cycle of action research, i.e., posing questions, planning, action (and gathering data), monitoring, reflection, and deciding on the next action (Ferrance 2000; Waters-Adams 2006). The specific problem that motivated the study was unsatisfactory success rates at exit exams at an interpreter training program, which might have resulted from reduced classroom hours and students' lack of confidence and motivation. As a possible solution to this problem, the instructors incorporated in the syllabus self-study activities using a variety of multimedia materials. Student feedback and test results were gathered as data and evaluated to gauge the success of the new approach. Exit exam scores showed marked improvement over those of previous years and positive student feedback reflected enhanced student motivation. Adjustments were made during the process by taking progressive steps such as piloting materials, facilitating off-site practice, and allowing students to self-pace consecutive interpreting practice after data showed that the length of interpreting segments was very different among students.

To truly reflect the cyclical nature of action research and its emphasis on action for change and improvement, it is important to identify additional questions in light of the results of the action research project and plans for revisions or further improvements (Ferrance 2000), or even new problems rising as a result of the new approach. This is certainly what we hope to see more of from action research projects in the future.

Historical research
Historical research is rare in interpreting studies as evidenced by the limited number of this type of research published in *Interpreting* – only three articles within the examined period. Takeda (2008) investigated a unique case in world history – the testimony of Japan's wartime prime minister during World War II at the Tokyo War Crimes Tribunal, focusing on the arrangement and behavior

of interpreters and monitors of interpretation. Lung (2008) studied two different types of translation officials in the central government of the Tang Dynasty. Lung (2009) examined how different main participants in interpreting events perceived interpreting in first-century China.

In addition to their different themes, the data used in these historical studies are also quite different. Takeda (2008) employed the recordings of the court proceedings, supplemented with her interviews conducted with some participants of the event. Lung (2009) made use of a combination of primary sources, such as memorandum and poems, and secondary sources, such as standard histories to provide evidence. The analysis of Lung (2008) was conducted on secondary sources only, mainly historical records of the events from standard histories.

When interpreting their data, Takeda (2008) drew on the reoccurring concepts of power and trust as the general analytical framework and focused on the "choices, strategies and behaviors of the interpreters, with reference to the social and political contexts of the setting in which they operate" (p. 72). Lung's (2008) main concern was to differentiate two translator titles in Tang China. Even though the distinction between translators and interpreters may have only originated in more recent times and that one has to be careful to avoid *presentism*,[5] Lung was able to provide evidence from the limited historical sources that the two types of officials did seem to have different duties.

Lung's (2009) use of both primary and secondary sources strengthens her interpretation of the perception of the different participants in an interpreter-mediated event in ancient China. However, as she duly mentions in the article, the primary source "was politically embedded and embellished purely from the perspective of the ruling clique…it is inevitable that the interpreting events and what people surrounding these events said and did might very well have been blemished, distorted, or largely ignored" (p. 130). This limits the generalizability of the data and only through an increased size of the data set can the generality of the findings be extended.

Hermeneutic analysis

Apostolou (2009) took an interpretive approach rooted in hermeneutics in her study of Sydney Pollack's film *The Interpreter* (Pollack 2005). Focusing on the interpreter's role, specifically her visibility or invisibility, the interpretive process of this study is grounded in the text, in this case, the film, instead of having a theory imposed on it (Gall et al. 1996: 632).

5. According to Gall et al. (1996), presentism is the "interpretation of past events using concepts and perspectives that originated in more recent times" (p. 662).

In this study, the interpretation of different parts and different aspects of the film, such as the set-up of some scenes, and the words, facial expressions, appearance of the characters, is rendered in the context of the meaning of the whole film, i.e., the invisibility and neutrality of the interpreter. The discussion continues to alternate between segments of the film and the whole film in a manner that is true to the method of the "hermeneutic circle," a method often used in hermeneutic analysis (Gall et al. 1996: 631). The continuous nature of this interpretive process is very similar to the constant comparison approach in grounded theory. In both cases, the interpretive and analytical process continues until a closure is reached.

Quantitative approach

As mentioned earlier, quite a few studies reviewed in this article use both qualitative and quantitative methods to analyze their data. Among the 26 studies reviewed above that mainly adopt a qualitative approach, 10 of them also use descriptive statistics, such as frequencies, means and percentages, to analyze and present the data. Chang and Schallert (2007) also used inferential statistics in the analysis of their quantitative data. Among the 22 studies that used a quantitative approach as their main methodology, several also collected qualitative data and analyzed their data by using a qualitative method. Among the different quantitative methodologies they used, five can be categorized as descriptive quantitative studies (Ahrens 2005; Dam 2004; Nafá Waasaf 2007; Napier 2004; Szabo 2006), six are survey studies (Bischoff and Loutan 2004; Lee 2007, 2009; Russo 2005; Shaw and Hughes 2006; Xiao and Yu 2009), four are correlational studies (Clifford 2005; Liu and Chiu 2009; Lopez Gomez, Bajo Molina, Padilla Benitez and de Torres 2007; Setton and Motta 2007), seven fall in the category of experiments (Agrifoglio 2004; Köpke and Nespoulous 2006; Liu, Schallert and Carroll 2004; Prada Macias 2006), quasi-experiments (Peng 2009), and pre-experiments (Bartlomiejczyk 2006; Meuleman and van Besien 2009). Table 2 in the Appendix lists all 22 studies with their main methodologies, main constructs, data collection methods and instruments, forms of data, and methods used to analyze data.

Descriptive method

In quantitative descriptive research, the characteristics of a sample of individuals or phenomena are presented by employing descriptive statistics. Since these type of studies primarily concern the "what is" aspect of the studied cases (Gall et al. 1996), they are suited for newer fields such as translation studies and interpreting studies in which unknown or unclear phenomena can be accurately described

before subjecting such phenomena to more advanced examination to reveal the depth of their relationship.

Unlike experimental studies, descriptive studies do not involve manipulated variables. Rather, variations in a variable are observed under natural conditions with no artificial arrangement or manipulation (Gall et al. 1996). In the five descriptive studies reviewed here, pre-determined parameters are used as the basis for observations. Examples meeting the parameters are then transformed into quantitative data and analyzed and presented using descriptive statistics.

The constructs examined in these studies concern language in which consecutive interpreting notes are taken (Dam 2004; Szabo 2006), types of omissions in sign language interpreting (Napier 2004), prosodic elements in simultaneous interpreting output (Ahrens 2005), and intonational patterns of the speakers and the interpreters (Nafá Waasaf 2007). Descriptive statistics are performed to show frequencies, central tendencies such as means, or derived scores such as percentiles. Among the five studies surveyed in this article, only Nafá Waasaf (2007) used inferential statistics.

Despite its generally simple design and execution, descriptive research can yield important knowledge (Gall et al. 1996). Considering the limitations researchers of interpreting studies often encounter, such as the level of research training, replicability, and ecological validity, Gile (2006) advocates conducting studies with simpler design and no inferential statistics as the "best compromise" in conference interpreting research (p. 20–21). Descriptive research may suit his definition of this.

Survey

A survey design provides a quantitative description of trends, attitudes, or opinions of a population by studying a sample of that population (Creswell 2003: 153). There are six survey studies reviewed in this article. The themes and research questions of these studies concern the use and status of interpretation service (Bischoff and Loutan 2004; Xiao and Yu 2009), perception of participants (Lee 2007; Lee 2009; Russo 2005) in interpreter-mediated interactions, and student and faculty perception of success in sign language interpreter training (Shaw and Hughes 2006).

Sampling. One of the most important elements in a survey study is how sampling is performed. When a sample is drawn, careful consideration has to be given to how the sample represents the population. Bischoff and Loutan (2004) studied the way Swiss hospitals addressed the problem of language barriers in health care. The sample of their study is the target population of their concern, i.e., all hospitals in Switzerland that provide internal medicine and psychiatric care. Though

not explicitly mentioned in their article, the choice of these two medical branches is quite obvious as internal medicine is usually the largest branch in a hospital and psychiatry is unique in the sense that care involves deeper conversation between the caregiver and the patient and thus the problem of language barriers can be more pronounced.

Instead of drawing from the target population, Lee (2007) drew a sample from an accessible population by selecting and inviting Korean telephone interpreters listed in the directory of a certifying institution for translators and interpreters. Xiao and Yu (2009) also selected their samples from accessible populations of sign language interpreters and deaf people from provinces and municipalities in China based on geographical considerations and population size. Whether all members of these accessible populations were contacted is not clear as the authors only described distributing questionnaires at seminars or through mail, email, and on-line chat tools.

Also drawing a sample from an accessible population, Shaw and Hughes (2006) studied student and faculty perception of characteristics that led to success in sign language interpreting training. Their samples were students and faculty members of sign language interpreting training programs in four countries in North America and the EU, whose directors volunteered to participate in the survey.

Russo (2005) consolidated the results of two previous studies on user preference and evaluation of simultaneous film interpreting and compared them with the results of previous studies on conference interpreting. The two studies for which data were collected seemed to have used convenience sampling to select the samples, one film festival for each study. The people who checked out earphones for interpreting service made up their samples.

When samples are selected from an accessible population, the researcher needs to compare the relevant characteristics of the accessible population with the target population to decide to what degree the results can be generalized to the target population (Gall et al. 1996: 221). Likewise, if a convenience sample or a volunteer sample is used, the researcher can provide a detailed description of the sample so that the population to which the results might generalize can be inferred (Gall et al. 1996: 228, 238). Among the five studies that survey accessible population or use convenience or volunteer samples, only Shaw and Hughes (2006) discuss the possible bias or errors in the way the samples represent the target population.

Instrument and procedure. Questionnaires are the most frequently used instrument in survey studies. Questionnaires are often self-administered by the participants, as in the case of the six studies reviewed here. The clarity and readability

of the instrument are very important because the researcher or the designer of the instrument may not be present when the questionnaires are filled out. This makes piloting the instrument critical, particularly when the instrument is newly designed and not adopted from previous studies. The content of two questionnaires that Shaw and Hughes (2006) used in their study was based on a previous study conducted by one of the authors and her team (Shaw et al. 2004), therefore "each of the survey items was linked to that project's data analysis" (p. 201). They also piloted the instrument on one member of the population and made changes based on the feedback from the pilot, thus improving the content validity of the instrument (Creswell 2003: 158).

If the instrument is not included in the appendix, as in Russo (2005), a description of the questions in the questionnaire or sample items should be included in the main text. The content of the questionnaires is briefly described in Bischoff and Loutan (2004) and in great detail in Shaw and Hughes (2006), including the major content sections, the items, and the type of scales used to measure the items.

A critical element in a survey study report is the response rate, the percentage of the number of members of the sample who return the survey. The response rates of these survey studies vary and in two cases (Russo 2005; Xiao and Yu 2009) are not provided. Bischoff and Loutan's (2004) initial questionnaire was followed up by two reminders to increase the response rate, which turned out to be an impressive 86.6%.

Correlational research

The correlational method is used to study the relationship between variables through the use of correlational statistics. It can also be used in prediction studies, that is, to predict an outcome from variables measured at an earlier point in time (Gall et al. 1996: 409).

One major concern in the field of interpreting is the ability to accurately predict candidates' aptitude for interpreting training. This is understandable, as the number of candidates who can be accepted by an interpreter training program is usually quite limited and training can be very costly. A selection process that accurately predicts training success and thus reduces the number of failures is of great value. Through prediction research, training programs can determine which criteria to incorporate in the selection process. The study of Lopez Gomez et al. (2007) is a good example of this type of research.

Though it is possible to analyze the relationships among a large number of variables in a single correlational study (Gall et al. 1996: 414), one should carefully identify potential determinants so to increase the likelihood of finding variables that may cause the characteristic pattern being studied (Gall et al. 1996: 416). In

Lopez Gomez et al. (2007), the selection of possible predictors was grounded in past research findings in psycholinguistics, language education and interpreting studies. The authors also chose some predictors based on classroom observation or commonsensical rationale from interpreting practice. They administered a battery of 12 tests during the first two months of training to predict proficiency in sign language and sign language interpreting skills, represented by scores given by a common trainer of all participants at the end of training.

The other three studies are relationship research instead of prediction research. Setton and Motta (2007) explored different ways of judging interpretation quality using the mode of simultaneous interpreting with text. Scores from three different methods of judging the quality of interpreting output were correlated with each other. Liu and Chiu (2009) were interested in finding potential predictors for source text difficulty with the purpose of maintaining consistency in the difficulty level of interpreter certification tests. Scores from different measures of text difficulty were correlated with the scores of test-takers.

Also for the purpose of improving an interpreter certification test, Clifford (2005) developed an interpreting test based on psychometric principles and compared its construct validity with an existing interpreting certification test. Two different groups of participants took the two tests, an existing performance-based test of simultaneous interpreting and a new paper-and-pencil test after simultaneous interpreting performance. The existing test measured two different constructs of interpretation output and the new test measured three different constructs of comprehension of the source speech. Correlational statistics were performed to assess the construct variance of the two tests by finding evidence of low correlations among different constructs to show that the tests were measuring what they purported to measure.

Though a correlational research design can be used to explore possible cause-and-effect relationships among variables, the obtained results cannot lead to strong conclusions about such relationships. A more definitive conclusion about a cause-and-effect relationship can only be provided by an experiment.

Experiments

An experiment involves the manipulation of one or more variables and the measurement of the effects of this manipulation on behavior (Shaughnessy and Zechmeister 1997: 192). There are many different experimental designs but only those that involve random assignment of participants to different groups can be considered true experiments.

Among the articles reviewed, seven studies fall in the category of experimental or experiment-like studies. The four experimental studies are described in the following section.

Natural groups design. An experiment of natural groups design involves independent variables whose levels are selected (instead of manipulated), such as individual differences variables (Shaughnessy and Zechmeister 1997: 213). Köpke and Nespoulous (2006) were interested in knowing if a difference in working memory capacity existed in interpreters, student interpreters and non-interpreters. Four groups of participants – professional interpreters, student interpreters, bilingual controls and monolingual controls – were compared in their performance on a multitude of tests for short-term memory or working memory. An analysis of variance was done to determine if the mean scores of the four groups differed significantly from each other.

Unlike in experiments in which variables are manipulated and controlled, results of a natural groups design have to be interpreted carefully to draw causal inferences. It is likely that groups of individuals are different in many ways besides the variable used to classify them, in the case of Köpke and Nespoulous (2006), interpreting expertise and the ability of speaking a second language. Therefore, the differences observed among groups of individuals can be confounded (Shaughnessy and Zechmeister 1997: 214).

One-variable design. Agrifoglio (2004) was interested in the problems encountered by interpreters when they performed three modes of interpreting, i.e., sight translation, simultaneous interpreting and consecutive interpreting. There is one independent variable, i.e., the mode of interpreting, in the study. The six participants were randomly assigned to three conditions with different speech-mode combinations, i.e., [Text A – ST, Text B – SI, Text C – CI], [Text A – CI, Text B – ST, Text C – SI], or [Text A – SI, Text B – CI, Text C – ST]. This is a one-variable multiple-condition design with the mode of interpreting as the independent variable and the three different speech-mode combinations as the multiple conditions. The problems encountered by interpreters are represented by the extent of meaning failures and expression failures in the interpreters' target language output. Descriptive statistics such as frequencies and percentage scores were presented, but no inferential statistics were performed to test if there was significant difference in the types of failures occurring in each interpreting mode.

In another study of one-variable multiple-condition design, Prada Macias (2006) studied the effect of silent pauses on users' evaluation of interpretation quality. The only independent variable – presence of silent pause – has three levels, each with different numbers and lengths of silent pauses in the video-recorded stimuli materials. Forty-three participants were assigned to the three conditions with consideration of their legal department affiliation. These participants filled out a questionnaire and marked their scores for the interpretation performance. Descriptive statistics such as mean scores were presented, but no inferential

statistics were performed to test if there was significant difference in the scores under the three conditions.

Factorial design. In a factorial experiment, the researcher determines the effect of two or more independent treatment variables (i.e., factors) on a dependent variable, both singly and in interaction with each other (Gall et al. 1996: 508). Liu et al. (2004) studied whether performance differences existed in simultaneous interpreting by individuals with similar working memory capacity, but different skills in simultaneous interpreting. This was a three-factor experiment involving three independent variables – expertise level, speech difficulty and importance of meaning units. Members in each of the three groups of participants were randomly assigned to each condition. Percentages of correct scores on accuracy were used as dependent variables. An analysis of variance was done to determine if the mean scores of the three groups differed significantly from each other.

As experiments involving more than two variables usually require a large sample size to subdivide the data for control of certain variables, studies with a smaller sample size run the risk of failing to achieve statistical power and thus jeopardizing the precision of the estimates of the characteristics of the population. Such is the case of the Liu et al. (2004) study, in which there are only 11 participants in each group. Many of the effects failed to reach statistical significance.

Quasi-experiments

When random assignment of participants to treatment and control groups is not possible, the quasi-experiment design is used (Gall et al. 1996: 505). Peng (2009) studied the consecutive interpreting output of two groups of student interpreters and compared their performance in terms of coherence structure with that of a group of professional interpreters. The participants were recruited in different years to be the control group and the treatment group respectively. The difference between the control and the treatment groups was the extra instruction on textual structure received by the treatment group.

Data was collected at three specific points of time during the participants' consecutive interpreting training by having them interpret one speech each time. The participants interpreted the first speech without taking notes four weeks after the training started, the second speech in the middle of training after receiving four weeks of instruction on note-taking, and the third speech at the end of training.

This study used a nonequivalent control-group design in which participants were not randomly assigned and the treatment and control groups both took a pretest (interpreting of Speech 1) and a posttest (interpreting of Speech 3). The

interpreting of Speech 2 served as a checkpoint for tracing the development of ability observed in this study. The interpretation performance of the two groups of student interpreters was compared with that of a group of professional interpreters serving as a benchmark. The extent of the presence of cohesive links in quantified coherence profiles of the interpretation outputs served as dependent variables. Possibly due to the small sample sizes (three to four participants in each group), no inferential statistics were performed to determine if performance difference was significant.

Pre-experiments

Bartlomiejczyk (2006) compared strategies used by student interpreters when interpreting from their A language (Polish) to their B language (English) and vice versa. The independent variable of the study is the language direction in which participants interpret. There was no assignment of the participants to different groups and no manipulation or treatment was involved in this study. All participants were exposed to all materials, i.e., each interpreted three sets of materials that consisted of one Polish and one English speech roughly matching in topics in each set. Data was analyzed and compared based on the independent variable of language direction. The design of this study cannot be considered experimental or even quasi-experimental based on the criteria described above. It is more like a *one-shot case study* conducted in a non-natural setting that involves an exposure of a group to a treatment followed by a measure (Creswell 2003: 168).

Meuleman and van Besien (2009) studied how different source-speech difficulty factors affected the strategy use of interpreters in simultaneous interpreting. Two different difficulty factors, syntactic complexity and fast speed, were introduced in the study. Though considered two independent variables by the authors (p. 22), these two difficulty conditions should be considered the two levels of one independent variable, i.e., speech, as different levels of manipulation were not used in each factor. All participants in this study were exposed to the two materials. Data was analyzed and compared based on the frequencies of the two main strategies used when interpreting the two speeches. Like the Bartlomiejczyk (2006) study, this study should be considered a pre-experiment or a one-shot case study in which a treatment is administered and the effects of the treatment are measured.

Authorship

As can be seen in our discussion so far, there has been an expansion of the types of methodology used in interpreting studies in recent years. This phenomenon may reflect an increase in research training and a greater diversity of academic backgrounds of interpreting studies scholars compared to those in the past.

The 53 articles published in *Interpreting* in the years 2004–2009 are authored by 75 scholars, of whom eight published twice in this journal during this period. Among these 67 authors, 42 (62.7%) explicitly stated in the "About the author" section that they either received training in, practice, or teach interpreting. This not only demonstrates the interest of practicing interpreters in the research of their own field, but may also indicate that practitioners are a dominant force in conducting and publishing interpreting-related studies. A related and important question is whether scholars outside the T&I field also pursue research on interpreting, whether they see interpreting as a human communications activity related and of interest to their respective fields, such as sociology, psychology, medicine, law, or science. Another relevant question is whether we are seeing collaboration among scholars of interpreting studies and experts from other fields.

Among the 42 interpreter-researchers, 26 (61.9%) of them state that they hold a doctorate degree. This may reflect a trend in translation and interpreting institutions in recent years to require their faculty to have a terminal degree. This trend has apparently benefitted research on interpreting as more sophisticated methodology is adopted, as clearly evidenced by the studies reviewed in this article.

With regard to the background of these interpreter-researchers, the highest degrees held are mostly in the field of translation and interpreting or language-related fields. This shows that most interpreter-researchers choose to pursue advanced degrees in more closely-related fields. With more programs offering doctoral degrees in translation and interpreting studies and an increase of theses and dissertations written on this field, this trend may eventually become a force to push the field of translation and interpreting studies to be acknowledged as a discipline on its own. However, translation and interpreting research has become and will continue to be more interdisciplinary. A lack of deep knowledge in a field from which the methodology is adopted may become an obstacle in producing good research work in translation and interpreting studies.

With regard to the authors who are not translation and interpreting scholars, five hold a degree in psychology, four in education, four in linguistics, three in sociology, and two in medicine. These authors study and write about interpreting in settings related to their fields. For example, Leanza's study (2005) on interpreting in pediatrics might be related to his expertise and experience in

transcultural psychology. Bot's article (2005) on interpreting in psychotherapy is clearly related to her work as a psychotherapist and to the fact that she "works with interpreters on a daily basis" (p. 261). Bischoff and Loutan (2004) studied interpreting in Swiss hospitals and both have a background in medicine. The sociology background of the co-authors of Edwards et al. (2005) might have inspired them to investigate how users of community interpreters perceive their experience of the service.

These non-interpreter scholars' interest in interpreting might have developed as a result of the impact the increasing demand of community interpreting services has made on their profession or the activities they observe in their research. It is natural that the foci of their studies are the role the interpreter plays and its impact on the traditional dyadic doctor-patient interaction (e.g., Bot 2005; Leanza 2005), how healthcare institutions address the need for interpreting service (e.g. Bischoff and Loutan 2004), and how users of such service, i.e., patients, perceive their experience in using the service (e.g., Edwards et al. 2005).

The benefit of having these non-interpreter scholars doing interpreting research is the different perspectives they offer, looking at interpreting as a human interaction activity in which the interpreter may not necessarily be the only focus of observation. This is beneficial to the interpreting field in that alternative views may prevent interpreting research from becoming narcissistic with the interpreter or the activity of interpreting itself always being the main focus.

Among the articles that are co-authored by both interpreters and non-interpreters, the Lopez Gomez et al. study (2007) on interpreter aptitude might have benefitted from two of the co-authors' expertise in psychometrics. Both Liu et al. (2004) and Köpke and Nespoulous (2006) study working memory and are co-authored by a psychologist and a neuropsycholinguist respectively. Scholars of education might have contributed their expertise in research methodology to studies such as Chang and Schallert (2007), Shaw et al. (2004) and Shaw and Hughes (2006). These provide examples of inter-disciplinary collaboration among interpreter-researchers and scholars from other fields as interpreter-researchers provide their insight of the trade and scholars of other fields offer their knowledge of the content or methodology of their respective fields.

Of the 53 articles, only 17 (32.1%) are authored by more than one scholar. This shows that single-authorship is still the most common practice in interpreting studies. While it has become a trend in sciences and social sciences to have multiple scholars working on a research project, joint-research and co-authorship have not yet become common in interpreting studies.

Discussion and conclusion

This article uses properties of research methods as data in 48 evidence-based studies published in the journal of *Interpreting* during the period 2004–2009. This review suggests that the field of interpreting studies has expanded its scope of methodologies used in its evidence-based studies. Among the 48 studies reviewed in this article, the use of qualitative and quantitative approaches is rather balanced, with the qualitative approach (26 studies) slightly outnumbering the quantitative approach (22 studies). There are quite a few examples in which both qualitative and quantitative approaches are adopted, as can be seen in the 10 studies of qualitative nature that also use descriptive statistics for analyzing and describing part of their data.

The case study method adopting a discourse analysis approach is the most dominant methodology used in the qualitative studies reviewed here. Fifteen of these case studies are done on community interpreting to explore the richness of its cultural, sociological, political and psychological dimensions or revelations. This shows a shift in the methodological trend in interpreting studies as the field made a "social turn" and saw its main conceptual point of reference shift from cognition to interaction (Pöchhacker 2008: 39). This trend of "going social" (Pöchhacker 2008: 38) brings with it a "going qualitative" aspect (Pöchhacker 2008: 40) as the qualitative approach emphasizes studying phenomena and human behavior in their natural settings, taking into consideration the different aspects of these phenomena and behavior. In addition to the case study method, we have observed other qualitative research methods that have not been commonly seen in interpreting studies. There are two studies that used the grounded theory method to develop theories rooted in the data through a bottom-up approach. One study adopted the action research approach to test and reflect on potential solutions to existing problems. There are three historical studies that used both primary and secondary sources to give meaning to some historical facts. The method of hermeneutic analysis, more commonly used in translation studies, is used to analyze a film about a UN interpreter.

On the quantitative approach side, we have seen a more balanced share of different methodologies used in the 22 studies reviewed. In addition to the more commonly used methodologies such as descriptive (five studies), survey (six studies), and experimental or experiment-like (seven studies), there are four correlational studies that explore relationships between constructs or make predictions. We have observed more sophisticated research designs and procedures in these studies as compared to studies done in the past, demonstrated by such practices as pilot-testing materials, instruments and procedures, enlisting multiple raters for

scoring, conducting inter-rater reliability analysis, and testing generalizability of results by use of inferential statistics.

Possibly one of the most dramatic contrasts with studies done in the past is the use of technology in the different stages of a research, be it in transcribing audio or video recorded data, coding transcripts or other contents, analyzing the sound profiles of interpreting output, and producing quantitative features using corpus linguistics tools. One cannot fail to mention the emerging roles of remote conferences and video conferences as potential alternatives to traditional face-to-face communication and a new genre in interpreter-mediated interactions. Another notable change from the past is the gradually disappearing divide between sign language and spoken language interpreting research. Not only are there five articles on sign language interpreting among the 48 studies reviewed, but there is also one study that examined student perception of interpreting readiness by both sign-language and spoken-language interpreting students (Shaw et al. 2004) and thus directly bringing the two fields together.

We acknowledge that interpreting studies research is a field made up of many methodological traditions and perspectives. Each of these perspectives can make important contributions to the field as a whole. All the trends discussed above show a fresh new development of research practice in interpreting studies. However, there are still weaknesses in some methodological practices, of which the strengthening can greatly improve the quality of research in interpreting studies. For example, reliability of measurements is seldom mentioned in the studies reviewed in this article. The enlistment of at least two raters in scoring with a reasonably high inter-rater reliability score can notably enhance the reliability of the results measured by a dependent variable and thus the effects caused by an independent variable. Likewise, reliability of the results of a qualitative study can improve if more than one coder is engaged in the data coding process and their inter-coder reliability examined. In the cases where there is a single coder, the practice of re-coding with reasonably high intra-coder reliability can be helpful.

A small sample size has always been a problem in interpreting research. Very often the size of the participant pool is not large enough to achieve significant results in statistics. A compromise has to be made sometimes to invite heterogeneous participants to form a larger participant pool, as demonstrated by some studies reviewed in this article. The risk of doing so, taking an experimental study for example, is obtaining results of which the effect cannot be confidently attributed to the treatment or the variable of interest. Likewise, it is important to select a group of participants who are reasonably homogeneous in a correlational study, so that relationships between variables will not be obscured by the different characteristics of the participants.

In some of the quantitative studies reviewed in this article, words such as “experiment” or “experimental groups” emerge even though some studies cannot be considered experiments as no manipulation of treatment was involved. Likewise, the fact that data is collected in a non-natural setting does not make a study experimental. Even though the experimental design is the most powerful research method for establishing cause-and-effect relationships between variables (Gall et al. 1996: 463), quasi-experiments, pre-experiments, and even descriptive studies, if done properly, can greatly enhance our understanding of the phenomena in our field.

The same can be said about using descriptive statistics versus inferential statistics. As we still try to find out many “whats” in interpreting, it is often sufficient to use descriptive statistics to describe what the data shows, which can be powerful enough to show trends. The limitation of using descriptive statistics alone is that we cannot make inferences from our data to more general conditions, nor can we confidently say that differences observed in different groups are reliable.

Of the 31 studies that employed statistical analysis, 24 of them used descriptive statistics and only seven used inferential statistics. Many of these studies investigated the difference among groups or that between treatments. In a couple of articles reviewed, phrases such as “significant difference” or “reach significance” are used despite an absence of inferential statistic analysis. As a result, conclusions made based on these claims can be misleading.

The goal of this article is to increase awareness of the state of research methodology in interpreting studies so that future studies can capitalize on the strengths and be aware of the weaknesses in the previous research. It is hoped that this methodological review, through its analysis and discussion of a sample of close to 50 studies published in the past six years in a representative journal of interpreting studies, has succeeded in doing so.

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Appendix

Qualitative and quantitative studies in *Interpreting* 2004–2009

Table 1. Qualitative studies in *Interpreting* 2004–2009

Study	Methodology	Cases/Constructs
Pöllabauer (2004)	case study (discourse analysis)	• community interpreting • role of interpreter
Petite (2005)	descriptive (discourse analysis)	monitoring & repair in SI
Edwards et al. (2005)	case study (discourse analysis)	• community interpreting • user experience
Leanza (2005)	case study (discourse analysis)	• healthcare interpreting • role of interpreter
Valero-Garcés (2005)	case study (discourse analysis)	• healthcare interpreting • roles of participants
Dubslaff & Martinsen (2005)	descriptive (discourse analysis)	• healthcare interpreting • pronoun shifts in interpreting
Bot (2005)	case study (discourse analysis)	• healthcare interpreting • pronoun shifts in interpreting
Merlini & Favaron (2005)	case study (discourse analysis)	• healthcare interpreting • role of interpreter
Angelelli (2006)	case study (discourse analysis, content analysis)	• community interpreting • professional standards & role of interpreter
Henriksen (2007)	descriptive (discourse analysis)	formulaic language use in SI
Braun (2007)	descriptive (discourse analysis)	• interpreter-mediated videoconference • interpreter adaptation & strategies
Berk-Seligson (2008)	descriptive (discourse analysis, content analysis)	• court interpreting • participants' views on language policy
Lipkin (2008)	case study (discourse analysis)	• court interpreting • role of interpreter

Data collection methods	Forms of data	Data analysis
audio-recording of interaction	transcripts of utterances	coding
interpreting	transcripts of interpretation	• coding • descriptive statistics
interviews	transcripts of interviews	coding
• observation as observer • video-recording of interaction • retrospective interviews	transcripts of utterances	• coding • descriptive statistics
audio-recording of interactions	transcripts of utterances	• coding • descriptive statistics
• observation as participant-observer or observer • simulated interviews	transcripts & translation of utterances	• coding • descriptive statistics
• observation as observer • video-recording of interaction	transcripts & translation of interviews	• coding • descriptive statistics
• observation as observer • audio-recording of interaction	• field notes • transcripts of utterances • recording of interaction	coding
focus group interviews	transcripts of interviews	coding
interpreting	transcripts of interpretation	coding
• simulated dialogues • recording of interaction • retrospective interviews	• transcripts of utterances • transcripts of interviews	interpretive process
interviews	transcripts of interviews	interpretive process
• interviews • observation as observer	transcripts of interviews	interpretive process

Table 1. (*continued*)

Study	Methodology	Cases/Constructs
Christensen (2008)	case study (discourse analysis)	• court interpreting • address forms of judges
Jacobsen (2008)	case study (discourse analysis)	• court interpreting • face maintenance
Merlini (2009)	case study (discourse analysis)	• community interpreting • roles of participants
Chang & Wu (2009)	descriptive (discourse analysis)	• conference interpreting • address form shifts
Leung & Gibbons (2009)	multiple-case study (discourse analysis)	• court interpreting • interpretation of special linguistic forms & its impact
Albl-Mikasa (2008)	multiple-case study (content analysis)	CI notes
Shaw et al. (2004)	grounded theory	• sign-language & spoken- language interpreting • student perception of interpreting readiness
Chang & Schallert (2007)	grounded theory	interpreter strategies in SI
Hansen & Shlesinger (2007)	action research	self-study in interpreter training
Takeda (2008)	historical	arrangement and behavior of language specialists at Tokyo War Crimes Tribunal
Lung (2008)	historical	translation officials in medieval China
Lung (2009)	historical	participant perception of interpreting activities in ancient China
Apostolou (2009)	hermeneutic analysis	role of interpreter

Data collection methods	Forms of data	Data analysis
• observation as participant • questionnaires • audio-recording of proceedings	transcripts of court proceedings	• coding • descriptive statistics
• observation as participant • audio-recording of proceedings	transcripts of court proceedings	coding
• observation • audio-recording of interaction	• transcripts of utterances • field notes	• coding • descriptive statistics
• observation as observer or participant-observer • interviews	transcripts of interpretation	• coding • descriptive statistics
audio-recording of proceedings	transcripts of proceedings	• coding • descriptive statistics
available audio-recording of interpretation	• CI notes • transcripts of interpretation	coding
• questionnaire • focus group interviews	transcripts of interviews	coding
• experiment • questionnaire • retrospective interviews • general interviews	• transcripts of interpretation • transcripts of interviews	• coding • inferential statistics
• observation • study logs • tests	• student feedback • test scores	descriptive statistics
• available recording of proceedings • interviews	transcripts of interviews	interpretive process
available secondary sources	standard histories	interpretive process
available primary and secondary sources	• memorandum, poems • standard histories	interpretive process
film	film	interpretive process

Table 2. Quantitative studies in *Interpreting* 2004-2009

Study	Methodology	Cases/Constructs
Dam (2004)	descriptive	language of CI notes
Napier (2004)	descriptive	• sign language interpreting • omissions in interpreting
Ahrens (2005)	descriptive	prosodic features of SI
Szabo (2006)	descriptive	language of CI notes
Nafá Waasaf (2007)	descriptive	intonation patterns in SI
Bischoff & Loutan (2004)	survey	• healthcare interpreting • use of interpreting service
Russo (2005)	survey	• film interpreting • user preference & evaluation of interpreting
Shaw & Hughes (2006)	survey	• sign language interpreting • student & faculty perception of success in interpreter training
Lee (2007)	survey	• telephone interpreting • interpreter perception of profession
Lee (2009)	survey	• court interpreting • role of interpreter • quality of interpreting
Xiao & Yu (2009)	survey	status of sign language interpreting
Lopez Gomez et al. (2007)	correlational	interpreter aptitude
Setton & Motta (2007)	correlational	quality assessment
Liu & Chiu (2009)	correlational	difficulty of source text
Clifford (2005)	correlational	validity of interpreting tests

Data collection methods	Forms of data	Data analysis
interpreting	CI notes	descriptive statistics
• interpreting • observation of interpreting • retrospective interviews • interviews	• observation notes • video recording of interpretation • video recording of interviews	descriptive statistics
• audio-recording of interpretation • questionnaire	audio-recording of interpretation	• speech analysis software • descriptive statistics
interpreting	CI notes	descriptive statistics
available audio-recording of interpretation	audio-recording of interpretation	• speech analysis software • inferential statistics
• sampling: all internal medicine; all psychiatry • questionnaire	questionnaire item scores	descriptive statistics
(from 2 previous studies) • questionnaire	questionnaire item scores	descriptive statistics
questionnaire	questionnaire item scores	descriptive statistics
phone interviews	researcher notes of participant responses	• descriptive statistics • coding
questionnaire	questionnaire item scores	descriptive statistics
• questionnaires • interviews (face-to-face; phone)	questionnaire item scores	descriptive statistics
tests	• test scores • assessment scores	correlational statistics
interpreting	• transcripts of interpretation • assessment scores	correlational statistics
• interpreting • questionnaire	assessment scores	correlational statistics
testing	test scores	correlational statistics

Table 2. (*continued*)

Study	Methodology	Cases/Constructs
Liu et al. (2004)	experimental (3-factor factorial design)	• performance difference among experts and students • IV: 1. expertise (3 levels) 2. speech difficulty (2 levels) 3. importance of meaning units (2 levels) • DV: accuracy scores
Köpke & Nespoulous (2006)	experimental (natural groups design)	• working memory capacity of interpreters • IV: group (4 levels) • DV: test scores
Agrifoglio (2004)	experimental (one-variable multiple-condition design)	• failures in interpreting • IV: interpreting mode (3 levels) • DV: frequencies and scores of failures
Prada Macias (2006)	experimental (one-variable multiple-condition design)	• effect of silent pause on interpretation evaluation • IV: frequencies & durations of silent pause (3 levels) • DV: rating scores
Peng (2009)	quasi-experimental (nonequivalent control-group design)	• cohesion in CI • IV: instruction on textural structure (control vs. treatment) • DV: cohesive links, cohesion profiles
Bartlomiejczyk (2006)	pre-experimental (one-shot case study)	• strategies in SI • IV: language direction (2 levels) • DV: frequencies of strategies
Meuleman & van Besien (2009)	pre-experimental (one-shot case study)	• strategies in SI • IV: speech (2 levels) • DV: 1. level of syntactic structure 2. speaking speed 3. types of strategy

Note. IV = independent variable, DV = dependent variable.

Data collection methods	Forms of data	Data analysis
interpreting	• audio-recording of interpretation • transcripts of interpretation	inferential statistics
• tests • questionnaire	test scores	inferential statistics
interpreting	transcripts of interpreting	• descriptive statistics • coding
questionnaire	questionnaire item scores	descriptive statistics
interpreting	transcripts of interpretation	• coding • descriptive statistics
• interpreting • retrospective interviews	• transcripts of interpreting • transcripts of interviews	• coding • descriptive statistics
interpreting	• audio-recording of interpretation • transcripts of interpretation	• coding • descriptive statistics

If a tree falls in a forest and no one is there to hear it, does it make a noise?

The merits of publishing interpreting research

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As an interdisciplinary research-based literature on interpreting emerges in spoken and signed language interpreting studies, this chapter provides an overview of publishing interpreting research for novice researchers seeking advice on publication. The chapter walks potential researchers through types of research projects and appropriate publication outlets. The importance of publishing interpreting research is discussed in light of the benefits for students, practitioners, educators, researchers and other stakeholders. In particular, the chapter discusses how interpreters can become involved in conducting and publishing research through "interpreter fieldwork research". The chapter emphasizes the need to draw together practice, experience and academic pursuit to make research accessible to all stakeholders in various forms of publications.

Publishing: Setting the scene

> Academic publishing describes the subfield of publishing, which distributes academic research and scholarship. Most academic work is published in journal article, book or thesis form. The non-commercial part of academic publishing is called grey literature. Much, though not all, academic publishing relies on some form of peer review or editorial refereeing to qualify texts for publication.
>
> Most established academic disciplines have their own journals and other outlets for publication, though many academic journals are somewhat interdisciplinary, and publish work from several distinct fields or subfields. The kinds of publications that are accepted as contributions of knowledge or research vary greatly between fields… (Wikipedia 2010)

The domain of translation studies has seen an exponential increase in the number of academic publications, which is evidenced in the range of dedicated publishers, book series and peer-reviewed journals. Interpreting studies is still an emerging

(sub)discipline of translation studies (Pöchhacker 2004, 2010), yet has also witnessed growing numbers of research-based publications from within the sub-discipline and from various other disciplines.

Readers can access excellent overviews of the first publications on spoken language simultaneous (conference) interpreting in two of Daniel Gile's papers (1990, 1994) and Franz Pöchhacker's book *Introducing Interpreting Studies* (2004), a potted summary of which will be provided here. It is not my intention to review the publications, but rather, to give an overview of the range and type of publications as they began to appear.

The first publications on interpreting appeared in the 1950s (Herbert 1952; Ilg 1959; Rozan 1956) and were predominantly opinion pieces based on personal observations and the professional experience of practising interpreters. The first publication based on an academic study of interpreting was from Paneth (1957), who conducted an analysis of conference interpreting practice and training. During the 1970s, Barik (1971, 1973, 1975) began to contribute to the literature by publishing various studies of interpreting that drew on psychological methodology for their experimental design (see Gerver 1976 for a review of studies by experimental psychologists). However, during the 1970s and 1980s, many of the publications that appeared still relied on "personal theorizing" rather than empirical research (Gile 1990).

The late 1980s saw calls for collaborations with other disciplines, calls for more scientific research (Gile 1990), and a distinct difference became apparent between publications of a more academic nature that discussed experimental studies and those that were descriptive opinion pieces (Gile 1998). Over time more empirical research publications have appeared that discuss conference/simultaneous interpreting from different theoretical perspectives, including: pragmatic (Kopczynski 1994), qualitative (Pöchhacker 1994), cognitive-pragmatic (Setton 1999), psycholinguistic (Baddeley 2000; Chernov 2004), sociological (Diriker 2004), cognitive (Gile 2005), linguistic (Lamberger-Felber and Schneider 2009), and sociolinguistic/communicative (Monacelli 2009).

The emergence of publications on community interpreting followed a similar path, in that early publications tended to be descriptions of personal experiences and opinions rather than research per se. Given that signed language interpreting was well established in the community rather than conference sector, it is not surprising that many of the first publications on community interpreting came from signed language authors (e.g., Domingue and Ingram 1978). However, although it is established that community interpreting is different from conference interpreting (Hale 2007), publications were still dominated by psycholinguistic analyses of monologic simultaneous signed language

interpreting in the community (Ingram 1978, 1985; Isham 1994; Isham and Lane 1993, 1994), rather than the communicative nature of dialogic community interpreting.

Nonetheless, signed language interpreting publications have since drawn on various disciplines, including linguistics (e.g., Nicodemus 2009; Stone 2009), sociology (e.g., Thoutenhooft 2005; Turner 2006), and psychology (Seal 2004). A review of the literature will show that sociolinguistic/discourse-based studies are common (see for example Cokely 1992; Roy 2000). Research-based discussions of signed language interpreting in community settings include publications on educational interpreting (Seal 1998; Winston 2004), medical interpreting (Metzger 1999; Sanheim 2003), legal interpreting (Brennan and Brown 2004; Russell 2002; Russell and Hale 2008); and more recently, workplace interpreting (Dickinson and Turner 2009; Hauser, Finch and Hauser 2008). The publications cited here are predominantly based on research, yet many published discussions of signed language interpreting are also based on personal experiences of consumers and/or interpreters. Nonetheless there is an emerging body of work based on empirical research.

In terms of publications that report on spoken language community interpreting, a few papers on medical interpreting appeared during the 1970s, but the majority emerged in the late 1990s fuelled by the organization of the *Critical Link: Interpreters in the Community* conferences. Since that time many publications have highlighted the importance of community interpreting in the context of interpreting studies and have variously referred to community interpreting as "dialogic", "liaison" or "public service" interpreting (Gentile, Ozolins and Vasilakakos 1996; Corsellis 2008; Ricoy, Perez and Wilson 2009). Community interpreting has been recognised as a separate profession to conference interpreting with significance in its own right (Mikkelson 1996; Pöchhacker 1999), which has led to more publications detailing community interpreting research studies (e.g., Angelelli 2004a, 2004b; Wadensjö 1998); and publication of the Critical Link conference proceedings (Brunette, Bastim, Hemlin and Clarke 2003; Hale, Ozolins and Stern 2009; Roberts, Carr, Abraham and Dufour 2000; Roberts, Dufour and Steyn 1997; Wadensjö, Dimitrov and Nilsson 2007) provide much needed overviews of ongoing research in the field.

As an interdisciplinary research-based literature on interpreting emerges in spoken and signed language interpreting studies, this chapter provides an overview of publishing interpreting research with a view to encouraging practitioners, students, educators, and researchers to publish their investigations into interpreting. The chapter is aimed at novice researchers with no experience of publishing, in order to walk readers through an effective publication strategy.

Although I draw on the work of other interpreting studies scholars to discuss the merits of publishing interpreting research, this chapter is predominantly an autobiographical account of my own journey in publishing interpreting research. Essentially this chapter is an account of why I believe it is vital to publish in order to disseminate research findings, and what I feel is an effective strategy for publication. For that reason, I cite many of my own projects and publications as I am most familiar with my own approach to publishing interpreting research. Other scholars may have a different tactic, but the key message is that the publication of research is vital, whichever route is taken.

In addition to my own work, I also provide examples of various other publications to illustrate who, what, why, when, where and how interpreting research should be published. Given that I am a signed language interpreter by profession, the majority of examples I give are from this sector as I am more familiar with the literature. Nevertheless, the points that I make are relevant to the publication of both spoken and signed language interpreting research.

In discussing the publication of research, this invariably involves reference to research itself. Although this is not the goal of this essay, it is difficult to separate the two, so sometimes boundaries will be blurred. When I refer to research, it will serve to illustrate a point I am trying to make about publishing, but I encourage readers to draw on the other essays in this volume for more rigorous discussions of interpreting research itself. Nonetheless, before the *merits* of publishing can be discussed, it is important to consider the merits of *conducting* interpreting research.

The merits of conducting interpreting research

> …a practitioner may learn from the findings of research… But what kind of research will continue to provide such findings and what kind of interface between researchers and practitioners will improve the chances of learning from them? Presumably, the kinds of research that are being published in the journals and publications that our discipline has been producing at an ever-faster pace.
>
> (Shlesinger 2009: 4)

In an overview of interpreting studies research, one of the leading scholars in our field, Miriam Shlesinger, explores the relationship between interpreter practitioners, researchers and teachers. In her 2009 paper she reviews ten years of articles published in the journal *Interpreting – International Journal of Research and Practice in Interpreting*, for which she is one of the co-editors. She notes that much interpreting research is instigated by the intuitions of practitioners who have a question or a problem that they have diagnosed as a consequence of their own practice, and have identified as something that needs investigating. The difference

with more recent research guided by practitioner intuition as compared with earlier descriptive option-based publications, is that the intuitions are *investigated* and *analysed*. The "personal theorizing" noted by Gile (1990) is a criticism of publications of observations that were not tested in any way.

The essence of the quote above is that practitioners need research to understand more about their work, and researchers need practitioners to understand what needs to be investigated. However, no practitioner will benefit from research if it is not published. No researcher will determine other areas for investigation if completed studies are not disseminated among professional practitioner and research communities.

In the same article, Shlesinger (2009) also states that many practitioners do not understand the purpose of research. This lack of understanding is also explored in the volume *Why Translation Studies Matters* (Gile, Hansen and Pokorn 2010), in which Pöchhacker (2010) discusses why interpreting studies matters; that is, why interpreting research is purposeful. In his chapter, Pöchhacker comments that scholars in other disciplines, such as psychologists and sociologists, have investigated aspects of interpreting in order to inform their own disciplines more widely. For example, the study of language processing in interpreters has informed psychologists' understanding of language processing generally. Thus research on interpreting matters not only to interpreting scholars.

Following on from his earlier (2004) discussions, Pöchhacker (2010) also notes that research on interpreting began mainly with psychologists and psycholinguists as interpreting studies did not exist per se. As a field of research, however, interpreting studies is now an established (sub)discipline, featuring psycholinguistic and sociolinguistic research. The newer purpose of interpreting studies is the investigation of interpreting for the sake of understanding more about interpreting itself. Thus, I would assert that in order to make the research purposeful it needs to be published.

Interpreting studies should also matter to interpreter educators in order to inform their work, but Pöchhacker (2010) argues that there is little evidence of the use of research in (spoken language) interpreter education. I would counter, however, that there is evidence of uptake in the signed language interpreter education sector, which is facilitated by the biennial convention of the Conference of Interpreter Trainers (CIT)[1] and the new *International Journal of Interpreter Education* published by CIT. The CIT conventions include delegates from the interpreting research community and educational institutions; thus some research on interpreting is being shared with educators, and therefore applied in interpreter education.

1. CIT is a US-based organization that has historically focused on signed language interpreter education and training. See www.cit-asl.org.

Pöchhacker has explored approaches to interpreting research in various publications (2004, 2006, 2009, this volume) by analyzing the shifts, turns and paradigms in interpreting studies over the years. In all of his evaluations, Pöchhacker has acknowledged how much more work has been produced over the last twenty years; and that central themes and ideas have emerged (e.g., the role of the interpreter). Publication of this work has been vital to the generation, consolidation and further investigation of these themes.

As mentioned earlier, research is the foundation of practice and teaching. Research informs teaching, which informs practice; it is a cyclical process (Napier 2005c). But it is not that simple; the cycle is complex and multi-layered, and the impetus for research can occur in any of the following combinations depending on who observes/identifies an interpreting issue that needs investigating and decides to analyze it, and how it is applied:

a. *practice* > *research* > *teaching* > *practice*
b. *research* > *teaching* > *practice*
c. *teaching* > *research* > *teaching* > *practice*
d. *practice* > *teaching* > *research*
e. *practice* > *research* > *teaching*

Research is not centrally about critiquing and finding fault. Practitioners may make that assumption, which would explain why they may be reluctant to participate in research, or do not understand the purpose of research (as per Shlesinger's comment in her 2009 paper). Research can also seek out the positives – what interpreters do well, why and how they do it well – a form of "appreciative enquiry" to examine and develop practice where the research is directed towards exploring and appreciating what it is about the world, behaviour, interaction or system being studied that is positive (Whitney and Trosten-Bloom 2010). This approach helps us to celebrate what we do, and take pride in the complexity of our task and the role we fulfill.

Thus research is essential to furthering our understanding of interpreting studies; how it fits within translation studies; and how spoken and signed language interpreting relate to one another. We need to describe what translators and interpreters *do* – not explain what they *ought* to do. This philosophy is shared by Shlesinger (2009), Chesterman and Wagner (2004) among others. By understanding more about what we do, we can better explore how we teach people to do it. Turner (2005) refers to this as the need to explore "real" interpreting. Not what we think people should be doing, but what they actually are doing – in both a positive and negative sense.

Thus the merits of conducting interpreting research are that we learn more about what it is we do, which can feed into policy, practice and education. The purpose of publishing interpreting research is to disseminate research findings

and to share theoretical and applied implications that have developed as a consequence of that research. Now that I have established the merits of conducting interpreting research, let me turn now to the focus of this essay: the merits of *publishing* interpreting research.

The merits of publishing interpreting research

What is the point of doing research if we cannot learn from it? What is the point of doing research if people cannot test the findings?[2] What is the point of doing research if we cannot apply the findings in our practice and teaching?

A substantial number of Masters and PhD studies have been conducted on spoken language interpreting (Shlesinger 2009), and there is a considerable body of such work on signed language interpreting (Grbic 2007). Publication of any graduate research can and should inform the wider academic community; that is after all, its purpose. If someone goes to great lengths to complete a study and does not disseminate through publication, what is the purpose of research?

For example, Simon (1994) completed an ethnographic PhD study of signed language interpreter education programs in the United States; in her Master's thesis, Slatyer (1998) studied the role of spoken language healthcare interpreters in Australia; and Quinn (2004) worked with a research team to investigate how interpreters worked with deaf clients with learning difficulties/ language disorders in the UK. There are many other examples of research studies that have never been published – excellent studies that would contribute to our body of knowledge. In the context of academic publishing, this is referred to as *grey literature*, which is:

> a term used variably by the intelligence community, librarians, and medical and research professionals to refer to a body of materials that cannot be found easily through conventional channels such as publishers, 'but which is frequently original and usually recent'… Examples of grey literature include technical reports from government agencies or scientific research groups, working papers from research groups or committees, white papers, or preprints. (Wikipedia 2010)

We need to ensure that interpreting research conducted does not become grey literature. If research is conducted on interpreting, and it is not published, and no one gets to read it, then what is the impact of that research? How can we influence the end users – not only interpreters and interpreter educators, but other professionals (e.g., doctors, lawyers) to adjust their social practices?

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2. For example, Shlesinger (2009) recommends that we should be replicating more studies of interpreting to develop more robust evidence for our work.

Referring again to Pöchhacker's discussion of *why interpreting studies matters*, he states that:

> …our ambition to matter to those controlling the social practices in which interpreting is embedded will have to… take a different path. This, I suggest, has relatively little to do with publishing papers based on research. It is… the kind of development work that is done when interpreting scholars participate in committees or interdisciplinary working groups or projects designed to change a given social practice. It is in such time-consuming contacts that research-based expertise stands a good chance of being accepted and allowed to have an impact, but not so much through the dissemination of publications. (2010: 11)

Pöchhacker's point is valid, as publications are not worth anything if they are only read by other academics. But I argue that publications provide weight to policy directions. Academic publishing gives credibility. Not all researchers are members of committees. Practitioners, service providers and managers are often members of such committees and working groups, so if we do not publish how can they be made aware of up-to-date research, to use as evidence to lobby/advocate? I assert that both publication and the direct networking are essential.

In order to advocate the merits of publishing interpreting research, I will now provide an overview of who, what, why, when, where and how to conduct and publish research.

Who can publish interpreting research?

As mentioned earlier, various academics have contributed to the published work in interpreting studies, including psychologists, sociologists and linguists (Pöchhacker 2010); but over time more publications have been generated by authors who specialize in interpreting studies. Fifteen years ago Pöchhacker (1995) conducted a bibliometric analysis of publications in interpreting studies in order to develop a profile of "those who do" interpreting research. He identified the top 25 most productive (spoken language) interpreting studies authors at that time, the majority of whom were affiliated with a translation/interpreting department in an academic institution, but were also still practicing as conference or court interpreters. Pöchhacker identified that:

> Dual career tracks are clearly a key feature in any profile of the typical interpreting researcher, who works as a full-time academic with a side-line in professional interpreting, or is mostly occupied as an interpreter with a part-time teaching position at a university. (1995: 52)

This scenario is generally replicated among signed language interpreting researchers/authors, many of whom began as practitioners and still practice while holding full or part-time academic positions. Although academics are in an ideal position to conduct research as they have the facilities and infrastructure to carry out a project, and they have the luxury of writing up research findings on work time, one does not need to be an academic to be a researcher. Any practitioner who has an interesting question about their work can be a researcher. For example, Maureen Bergson and Jules Dickinson have both published research papers that stem from questions generated by their own practice as signed language interpreters in the UK (Bergson and Sperlinger 2003; Dickinson 2005).

Pöchhacker (2010) highlights the difference between having scientific research "on" and "for" interpreting. Similarly Turner and Harrington (2000) have stressed the need to conduct interpreting research "on, for, and with" all stakeholders. Practitioners are key stakeholders and thus can conduct their own research. As mentioned earlier, practitioners began to publish on spoken language conference interpreting in the 1970s and 1980s. During that period, the majority of research was conducted by practitioners. Gile (1994) refers to practitioners that become researchers as "practisearchers", a term also used by Shlesinger (2009).

I believe there is a place for academics, practisearchers and practitioners (who are not affiliated with academic institutions) in publishing interpreting research. Collaboration across these stakeholder groups is essential in order to inform our discipline. What follows are some suggestions regarding how collaboration can occur.

First, a practitioner can work with a practisearcher or academic who is more experienced in research and be mentored through the research and publication process. Through this approach, the practitioner can become a practisearcher and embark on his/her own journey of research and publication. For example, I have worked closely with Karen Bontempo on her PhD, which draws on her experience as an interpreter practitioner and interpreter educator to explore personality and aptitude in signed language interpreters. We have co-published together in various publication outlets (see Bontempo and Napier 2007, 2009, 2011).

Interpreting practitioners/practisearchers can also collaborate with practisearchers/academics from other disciplines to investigate questions raised by either party. For instance, I have published various papers with a mental health therapist and a psychologist (Cornes, Rohan, Napier and Rey 2006; Napier and Cornes 2004; Napier and Rohan 2007); and a legal practisearcher (Napier and Spencer 2007, 2008; Napier, Spencer and Sabolcec 2009).

In addition, anybody who is interested in publishing can consider working across modalities (spoken and signed) with other people from both "sides" of interpreting studies to enrich our understanding of interpreting studies (see for example Napier, Rohan and Slatyer 2007; Shaw, Grbic and Franklin 2004).

Now that we have determined *who* can publish, it is worth considering *what* we should publish.

What should we publish?

Ultimately what is published will be influenced by the personal interests of practitioners, practisearchers and researchers. As a first step, one needs to decide what to research. This step is discussed in more detail by other authors in this volume, so I only touch on it here. Questions for practitioners/practisearchers to consider are: What intrigues you about your work as an interpreter? Do you want to investigate why it is that you always do something a certain way? Have you observed a particular phenomenon in the practice of your colleagues that you would like to better understand?

For anyone interested in pursuing research and publication, I would suggest researching what you know – what you do on a daily basis – in order to begin on a smaller scale. Later in this chapter I outline how practitioners can become practisearchers by conducting *interpreter fieldwork research*.

Alternatively, find out what other people want to know. Seek out collaborations with organizations that want to investigate particular issues to inform their own policies, procedures and practices. Often these organizations are willing to provide funding, which is essential for conducting research projects on a larger scale to cover the costs of data collection and analysis. Here I provide three examples from my own research.

Investigating deaf jurors' access to court proceedings via signed language interpreting

This completed project was jointly funded by a Macquarie University External Collaborative Research Grant and the New South Wales Law Reform Commission. The project was commissioned by the Law Reform Commission to inform their investigation into whether deaf and blind persons ought to be able to serve on juries in criminal courts (NSWLRC 2004). In order to assess whether deaf people could serve as jurors as effectively as non-deaf people, they consulted with a range of stakeholders and surveyed existing research, literature

and policies worldwide. However, the Commission felt that they needed further evidence to support their recommendations; hence the research project.

The study sought to investigate the translatability of legal concepts from English into Australian Sign Language (Auslan), and piloted the level of comprehension of six deaf jurors as compared to a control group of six hearing jurors in order to assess the ability for deaf jurors to access court proceedings via signed language interpreters. Combining quantitative and qualitative approaches in the experimental design of a comprehension test with post-test interviews, content and discourse analyses, it was found that an interpretation from English into Auslan was highly accurate, and that there was no major difference in the level of comprehension between deaf and hearing participants. In sum, it was concluded that with trained and skilled interpreters, bilingual deaf people would be able to effectively access court proceedings via signed language interpreters, and perform their function as jurors although further research was recommended to investigate this issue in more depth (Napier and Spencer 2008; Napier, Spencer and Sabolcec 2009).

As an interpreter practisearcher, I collaborated with David Spencer, a lawyer and academic in the Department of Law at Macquarie University (a legal practisearcher). Prior to the project, I had provided advice to the Law Reform Commission as part of their investigation, and they requested that I conduct the research. I had previously approached David to be involved in teaching a legal interpreting unit for signed language interpreters at Macquarie University, as I felt that I did not have sufficient expertise in the area. Thus when the research project idea came up, he was the perfect research partner. The research assistant on the project was Joe Sabolcec, another practisearcher, who was an accredited Auslan/English interpreter before he worked on the project.

Medical Signbank: Sign language planning and development in signed language interpreter mediated medical and mental health care delivery for deaf Australians

This three-year research study was jointly funded by the Australian Research Council (ARC)[3] in collaboration with the National Auslan Interpreter Booking and Payment Service (NABS) and the New South Wales Health Care Interpreting Service (HCIS). The study involved the input of all stakeholders into the building of an interactive internet-based dictionary and database (*Medical Signbank*)[4]. In

3. LP0882270 Scheme: Linkage Projects 2008–2011.

4. http://www.auslan.org.au/.

addition to developing the website, focus groups were held with stakeholders in three major cities to elicit information from deaf people and interpreters about the signs that they use for medical or mental health concepts (see Johnston and Napier 2010; Napier, Major and Ferrara in press).

I worked collaboratively on this project with Trevor Johnston, an academic and renowned sign linguist who had the idea to extend his previous work on paper, CD and online-based Auslan dictionaries (see for example Johnston 1998, 2003; Johnston and Schembri 2007), and develop a medical-specific online site. Thus we approached the two "industry partners" (NABS and HCIS) to gauge their interest. NABS agreed to provide financial and in-kind support, HCIS agreed to provide in-kind support, and we applied to the ARC for the rest of the money needed. Both industry partners were keen to see the development of a free and interactive resource that could be used by their interpreters, but that would also benefit the Deaf community. The project also involved two PhD students, George Major and Lindsay Ferrara, who worked as research assistants on *Medical Signbank* as well as conducting their own related PhD research. George is a practisearcher, as she is a New Zealand Sign Language interpreter who has a specific interest in medical interpreting.

Video remote signed language interpreting for legal purposes: Assessing accuracy and effectiveness

This research project was commissioned and funded by the New South Wales (NSW) Department of Justice and Attorney General (DJAG). The project investigated the effectiveness of signed language interpreting services provided through video conference facilities in NSW courts. The provision of services was tested in key venues with video conference facilities across a range of five scenarios involving deaf people and Auslan/English interpreters. The aim of the project was to assess the effectiveness of interpretations when interpreters or deaf people were in remote locations, and the stakeholder perceptions of interpreted interactions experienced remotely (see Napier and Leneham in press; Napier in press).

This study was commissioned by the DJAG in order to determine whether it would be appropriate to provide signed language interpreters in court via video conference. The DJAG's goal was to obtain evidence as to whether remote signed language interpreting in court would be appropriate; and under what conditions it would be appropriate, so that they could develop clear policies and guidelines.

The study was commissioned by the Manager of the Diversity Section of the DJAG, who was familiar with my work as a researcher, but who actually knew me as an interpreter as she had seen me working at various disability-related

events. The research assistant that I recruited onto the project is a practisearcher and PhD candidate – Marcel Leneham – who is an accredited Auslan/English interpreter who has previously published some of his own research (see Leneham 2005, 2007).

The three examples given here illustrate just a few combinations of research collaboration that can lead to publication, and it can be seen that research can be instigated by practitioners, practisearchers, academics or other stakeholders.

Another strategy for those wanting to commence research but who do not have any specific ideas, is to replicate other studies and assess whether the findings are still relevant, applicable or consistent. Do the same findings occur with different language pairs; in the spoken as opposed to signed language interpreting process, in community as opposed to conference settings, in a different country with the exact same conditions, or between novice or professional interpreters? For example, my own study of interpreting omissions (Napier 2002a) with signed language interpreters working from English into Auslan for a university lecture could be replicated with different signed languages, in different contexts, in a different language direction, or within a spoken language interpreting setting.

What follows are suggestions for two very different research projects (see Shlesinger 2009 for further suggestions of questions that interpreter practisearchers may like to investigate based on their intuitions of their practice):

1. Research project A
- Initiation: Practitioner poses the question "I notice that I always do X when I am interpreting from language A into language B, so I wonder why that is?"
- Exploration: Talk to colleagues and discover that others have noticed the same phenomenon.
- Research design: Use a triangulation approach to test the question, (i) survey other interpreters, (ii) record authentic interpreter mediated interaction and conduct a linguistic analysis, and (iii) carry out retrospective interviews with participants.
- Publication: This is not an issue particular to this language pair, so the results may be of interest to XYZ so need to report the findings widely, and also to other professionals who work in the same context.

2. Research project B
- Initiation: Practisearcher/academic is interested in the results of Marschark et al. (2004) study of comprehension of signed language interpreting.
- Exploration: Assessment of the research methodology reveals potential flaws, and it is not clear if the results would be applicable in other contexts, or with other signed languages.

– Research design: Replicates the study to test validity of results, then re-designs the methodology to test comprehension but in a different way.
– Publication: This replication is of particular interest to sign linguists and signed language interpreter researchers and educators, so the results are published in a sector specific journal.

To reiterate, ultimately one of the outcomes of any research should be to publish, but sometimes getting started is the hardest thing to do. A valuable resource is an edited volume titled *Getting Started in Interpreting Research* (Gile et al. 2001), which provides a thorough overview on selecting a topic and working on a PhD. One particularly useful chapter for practitioners embarking on research (but not necessarily a PhD) is by Kurz (2001), who discusses how to conduct small projects in interpretation research. Echoing Gile's (1990) earlier advocacy for small research projects, she outlines how a "one-person-research-team" can conduct research that is worthy and significant in proving (or disproving) an intuitive impression, or putting other people's theories to the test. They can also re-examine other people's conclusions, repeat or modify a previous study, or zoom in on a detail in a bigger study. Williams and Chesterman's (2007) guide to conducting research in translation studies is another valuable resource.

Why should we publish?

Publishing research can broaden understanding of the processes in, and products of, interpreting and interpreting pedagogy. Publication can facilitate interdisciplinary information exchange. It is important to publish in order to disseminate research findings, otherwise the findings are meaningless. But when, where and how we should publish is complex and depends very much on the practisearcher/academic/author. Nonetheless, there are key points that are central to these questions which I will now address.

When should we publish?

Initially, the research should be conducted when it is timely. It is important to stay motivated, especially if you are working on a PhD as this will take a minimum of three years.

I recommend that research findings should be published as soon as possible. If left too long, others will publish their own research that outlines similar findings to your own, except that theirs will be in the public domain first. It is surprising

how many people can have the same idea at the same time[5]. If you do not publish soon after completing your research, it will not be long before someone else decides to investigate the same problem, pursue it and publish. For example, Helen Slatyer regrets that she did not publish her MA thesis which analyzed the role of medical interpreters, as other people later published similar findings to her own (Personal communication, 18th November 2009). She felt she could no longer publish her thesis as it would not be viewed as new or innovative, although she had completed her research before others.

For findings to be applicable, they need to be current. For example, a demographic survey of Auslan/English interpreters that I conducted for my PhD was completed in 1999, but published four years after completion (Napier and Barker 2003). By that time, the majority of information was still relevant, but some of the results reported did not reflect the demography of Auslan/English interpreters four years after they responded to the survey. When the survey was conducted there were no university signed language interpreter education programs in Australia. In 2003, a new university program was in its second year of offering. Although such delays will not always impact on the relevance of research findings, all authors should be mindful of timliness when planning to publish.

Another option is to publish as you proceed with a major study, to inform the wider professional and academic communities of progress to date. For instance, the *Medical Signbank* project has one published article (Johnston and Napier 2010), which outlines the plan of the project. Another paper that is in press reports on preliminary findings from one stage of data collection – workshops with sign language interpreters (Napier, Major and Ferrara in press), and more papers are planned based on further data collection (focus groups with deaf people), findings and analyses (from interactions with the *Medical Signbank* website).

Where should we publish?

When deciding where to publish, authors should consider their target audience. Which audience is the paper intended for? Is the intended readership academics or other practisearchers? If so, then an academic peer-reviewed journal is fitting. If the intended readership are practitioners or interpreter educators, a different publication vehicle, such as an association newsletter, would be more

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5. Rene Girard's mimetic theory refers to the human desire to imitate, which often explains why several blockbuster movies on the same theme will be released at the same time: fantasy, armageddon, alien invasion, etc.

appropriate. If it is important for other stakeholders to become aware of, and adopt the research findings, writing a less academic paper in a community bulletin or policy manual may be most effective. Additionally, it is possible to do all of the above. There is no point in conducting research and publishing in only one medium if only one sector of the stakeholder community can access the information.

When considering where to publish, also think about what you want to say to whom. Publications can focus on select findings from a research study. Key areas for discussion may be of more interest to some stakeholders than others. The whole research project and its findings do not need to be published all in one document; it can be better to split the discussion of findings into different papers that highlight what is most pertinent to the audience.

Again, to use my own dissertation research as an example, I published the results in various forms for different audiences. Initially the entire study (*Linguistic Coping Strategies of Sign Language Interpreters*) was published as a book (Napier 2002a) targeted primarily at researchers, educators and students (with a view to being used as a textbook in interpreter training). Later, a reduced overview was published as a chapter in an edited volume featuring research on interpretation (Napier 2003). I also broke the study down into five key themes, and wrote up aspects of the thesis to appeal to different stakeholders, and thus published in alternative journals as follows:

The *Journal of Deaf Studies and Deaf Education* featured an article that focused on university interpreting and the translation styles that my interpreter participants used when interpreting for a university lecture. In this article I suggested that to best meet the needs of deaf students in higher education, interpreters could consider a process of "translational contact" – switching between free and literal translation styles in order to provide students with access to academic English or subject-specific terminology (Napier 2002b).

For the *Australian Journal of Deaf Education*, the published article concentrated on the results of a demographic survey of Auslan/English interpreters, and in particular their educational qualifications and their work in educational settings (Napier and Barker 2003).

In the journal *Interpreting: International Journal of Research and Practice in Interpreting*, I discussed the omissions that were produced by ten Auslan/English interpreters in my study, and suggested a new omission taxonomy for analyzing the types of omissions produced by interpreters of any language (Napier 2004).

For the journal *Sign Language Studies*, I focused on one of the linguistic aspects of the study: the metalinguistic awareness demonstrated by the interpreters during the interpreting and retrospective interview process (Napier and Barker 2004a).

Finally, returning to the *Journal of Deaf Studies and Deaf Education*, I reported on a panel discussion among deaf consumers who had been, or were, university students, and their perceptions and preferences of interpreting in the university context (Napier and Barker 2004b).

Interpreting research can be published in domain-specific books, edited volumes, or in translation or interpreting-specific journals. Alternatively, if the research draws on other disciplines, it is worth considering publishing in journals from related disciplines, or publishing in journals that target professionals whose social practices you want to influence (e.g., doctors, lawyers). A list of recommended journals or avenues for publication in interpreting studies is provided in Appendix A. The list of suggestions is not limitless. Where research is published depends on the nature of collaboration, the research questions that have been asked, the research design, the findings, the implications/application of the findings, and the desired impact on which population.

Referring to my own publications, it can be seen from the list below that all of the above variables have influenced which journals were targeted:

1. A discussion of signed language interpreting in mental health contexts to inform mental health professionals: *Journal of Australasian Psychiatry* (Cornes and Napier 2005).
2. A brief summary of research findings from the deaf juror project to inform legal professionals: *Reform: A Journal of National and International Law Reform* (Napier and Spencer 2007).
3. A case study of cooperation between signed language interpreters and a deaf presenter in a monologic seminar présentation, discussed from the perspective of interactional sociolinguistics and targeted at linguists: *Discourse and Communication* (Napier 2007a). The same case study was written up in a more pragmatic way and targeted at a different audience of deaf clients and interpreters, and published in a volume published by Gallaudet University Press entitled *Deaf Professionals and Designated Interpreters Working Together: A New Paradigm* (Napier, Carmichael and Wiltshire 2008).
4. A report on the perceptions of bilingual competence compared to preferred language direction in the case of Auslan/English interpreters to applied linguists: *Journal of Applied Linguistics* (Napier, Rohan and Slatyer 2007).
5. An overview of an action research project instigated to effect change in the distance delivery of the Auslan/English interpreter training program at Macquarie University targeted educational researchers in *Educational Action Research* (Napier 2005d).
6. An outline of teaching discourse to Auslan/English interpreters, targeted at language teaching experts: *Language, Culture and Curriculum* (Napier 2006a).

7. A case study of the use of storytelling as a pedagogical tool for teaching interpreting students, aimed at interpreter and translator trainers of spoken and signed language interpreting students: *The Interpreter and Translator Trainer* (Napier 2010).
8. A content analysis of interpreter and consumer perceptions of signed language interpreting in Australia, for a special issue of the *International Journal of the Sociology of Language* titled "Translators and Interpreters: Geographic Displacement and Linguistic Consequences" (Napier 2011).

Other examples can be found from spoken language interpreting research, where publications discussing interpreting issues have featured in professional journals, such as legal and medical journals. For example:

> Legal: *International Journal of Speech, Language and the Law* (Hale 1999), *The Florida Bar Journal* (De Jongh 2008);
>
> Medical: *Journal of General Internal Medicine* (Aranguri, Davidson and Ramirez 2006), *Social Science and Medicine* (Elderkin-Thompson, Silver and Waitzkin 2001).

It is important to keep in mind the target reader audience. Practitioners need to benefit from the results of research, but not all practitioners read academic journals. Consider the communities that rely on interpreters – research findings should be disseminated to all relevant communities through community magazines and professional association newsletters. The list that follows provides further examples from my own work:

1. Discussion of what makes the ideal interpreter, published in the magazine of the Association of Sign Language Interpreters of England, Wales and Northern Ireland (Napier 2005e).
2. A summary of findings from my study on consumer perceptions of signed language interpreting in Australia published in electronic book proceedings of the Supporting Deaf People online conference – a conference well attended by interpreter practitioners (Napier 2005b), and also published in the members magazine of Deaf Australia (then known as the Australian Association of the Deaf) called *AAD Outlook* (Napier 2005a).
3. A report on outcomes of the Deaf juror project for the Deaf community in *AAD Outlook* (Napier 2007b); and an overview of the implications of the same research for interpreters in the magazine produced by the Australian Sign Language Interpreters Association (Napier 2009).

How should we publish?

In order to publish, researchers need to engage in the writing process. All authors should expect to complete many drafts, and it helps to show drafts to different people for comment and constructive feedback. Nobody should expect to get writing right the first time, and should not be put off when receiving a review of their first article submitted to a peer-reviewed journal. It always seems harsh, but the reviewer comments should not be taken personally. The comments need to be accepted for what they are – an objective critique of a researcher's writing style, which seeks to ensure that any information presented is clear to all readers. One of the questions that any research journal article reviewer considers is, "Is there sufficient detail in this article for the study to be replicated?"

When writing, start by making bullet points of the ideas that need to be discussed in the article. By starting at that point, then inserting headings and sub-headings, the article can be fleshed out. Ensure that appropriate and relevant literature is covered (Gile 1999). The book by Gile et al. (2001) on interpreting research is an excellent reference for this process.

Check the "notes for authors" of the journal to which you plan to submit; these notes will provide guidance on the format, style, font, and referencing required. Also consider the expectations in terms of reporting of methodology, and other requirements. Liberal arts journals will be more accepting of descriptions of studies, whereas scientific journals tend to be stricter in requiring outlines of empirical research methodology. Quantitative studies tend to report results first, then follow with discussion and conclusions; whereas qualitative studies can discuss interpretation of findings as they are presented. A typical scientific journal article that reports on research is structured as follows:

- Introduction: setting the scene for the study
- Literature review: review of previous research/publications that have informed the present study, or that the present study challenges
- Methodology: participants, procedure, analysis
- Results: presenting results with various graphs/statistics
- Discussion
- Limitations of the study
- Conclusions
- Suggestions for further research

A more detailed breakdown of how to report quantitative or qualitative studies is provided in Appendix B, based on recommendations from Cresswell (1994).

Before I conclude this essay, I want to focus on examples of publications from practisearchers that can be used as a model for novice researchers to get started. All of them have conducted what I have elsewhere referred to as *interpreter fieldwork research* (Napier 2005c, 2006b). In this section I will draw heavily on the work of signed language interpreter practisearchers, as this is my own area of expertise.

Interpreter fieldwork research

In the same way that teachers are encouraged to participate in *classroom research* (Angelo 1991), and teachers and organizational leaders can engage in *action research* (Kember 2002, Scott 1999), interpreters can become involved in *interpreter fieldwork research*. The purpose of classroom research is:

> to contribute to the professionalization of teaching, to provide knowledge, understanding, and insights that will sensitize teachers to the struggles of students to learn. Classroom research consists of any systematic inquiry designed and conducted for the purpose of increasing insight and understanding of the relationships between teaching and learning. (Angelo 1991: 8)

This approach is known as *practitioner research* in the area of language teaching (Allwright 2003), whereby practitioners engage in *exploratory practice*. Allwright (2003), Burns (2005) and others encourage language teachers to develop their own research agendas and explore them in the classroom, thus contributing to the knowledge and understanding in the field. The purpose of interpreter fieldwork research is to contribute to the professionalization of interpreting, and to provide knowledge, understanding, and insights that will sensitize interpreters to the challenges of consumers. This is done through systematic inquiry designed and conducted for the purpose of increasing insight and understanding of the relationships between language, culture, discourse and interpreting.

Interpreters are out there in the field – doing it. They know what problems or "puzzles" (Allwright 2003) that need to be investigated. Earlier I mentioned *appreciative enquiry*, which draws on action research and entails looking for what is done well, and finding ways to share strengths with others and develop them further (Holmes 2000). This approach has been used in studies to analyse professional practice in other contexts, such as leadership (Vine, Holmes, Marra, Pfeifer and Jackson 2008) and healthcare (Reed, Pearson, Douglas, Swinburne and Wilding 2002), and I believe is an appropriate and effective ideology for application to the investigation of the professional practice of interpreters.

The following are examples of published interpreter fieldwork research, where interpreters have become practisearchers in order to investigate a particular question of interest through exploratory practice and appreciative enquiry. One common theme is that practisearchers investigate what they know, in contexts where they frequently work.

- A special edition of the journal *Deaf Worlds* features five articles from British Sign Language practisearchers conducting analyses of interpreting work (Cragg 2002; Dickinson 2002; Hema 2002; Hull 2002; Mitchell 2002).
- Two articles have been published generated from the interests of two different signed language interpreters working in mental health settings (Bergson and Sperlinger 2003; Cornes and Napier 2005).
- A linguistic case study of Irish Sign Language interpreting for university lectures is presented by Leeson and Foley-Cave (2007), and of translation of idioms between English and Irish Sign Language (Sheridan 2009).
- Similarly, two linguistic case studies are presented of theatre interpreting, with an argument that it is a hybrid between interpreting and translation (Banna 2004; Turner and Pollitt 2002).

This list is by no means exhaustive, but gives some ideas of how interpreters have been piqued by a particular issue in their own practice, which they have chosen to explore further. The key to all of these publications is that they all feature interpreters conducting self-analytical case studies and discussing ethical, linguistic or cultural issues based on their experience. They do not just involve "personal theorizing" or observations; the studies and resulting publications involve critical analyses of the professional interpreter fieldwork practice and make a significant contribution to our understanding of interpreting process, practice or product.

The notion of appreciative interpreter fieldwork or action research also applies to interpreter educators. Interpreter educators can also publish based on their everyday work. Interpreter educator researchers can begin a research project by investigating what they do on a regular basis; whether a case study of a teaching technique, an evaluation of an interpreter education program, or the analysis of interpreter screening measures (e.g., Kim 2005; Metzger 2000; Pollitt 2000; Slatyer 2006; Van Herreweghe 2005; Winston and Monikowski 2000, 2005). Many research ideas of interpreter educators are formulated from their own experiences as interpreter practitioners as they identify problems and are curious to analyse how these problems can be effectively discussed in the interpreter education classroom.

Conclusion

This chapter has provided an overview of publishing interpreting research with the goal of encouraging practitioners, students, educators and researchers to publish their investigations into interpreting. I have referred to my own publications and drawn on the work of others to discuss the merits of publishing interpreting research. I have also provided examples of various publications to illustrate who, what, why, when, where and how interpreting research should be published. I have ended the essay with a section that discusses the notion of interpreter fieldwork research, with examples of the work of various practisearchers who have started out by publishing research based on their own practice.

This chapter emphasizes the need to draw together practice, experience and academic pursuit to make research accessible to all stakeholders in various forms of publications. I have seen the benefit of the publication of my own research, for instance, in relation to my study of interpreting omissions. Due to the publication in one particular journal, I was contacted by an American Sign Language interpreter educator who wanted to apply the use of my omission taxonomy in teaching interpreters to analyze their work. Since our initial contact, the educator has given me frequent feedback on how she uses my work in various professional development workshops, and the comments that she has received on the taxonomy. I would never have received this type of feedback on my research if it had not been published.

So to return to the title of this essay: *If a tree falls in a forest and no one is there to hear it, does it make a noise?* I would argue that no, falling trees do not make a noise if no one is there to hear them fall. Following this reasoning, if a research project is completed, and no one gets to read it, does it make an impact? I would argue that unpublished research does not make an impact. Therein lie the merits of publishing interpreting research.

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Appendix A

Journals and relevant publishers

General

Machine Translation (Springer Netherlands)
The Translator (St Jerome Press)
Chinese Translators Journal (Translators Association of China)
Journal of Specialised Translation (Roehampton University, UK)
Perspectives-Studies in Translatology (Routledge)
Translation and Literature (Edinburgh University Press)
Modern Poetry in Translation (Queen's College)
The Bible Translator (United Bible Societies)
Meta (Les Presses de l'Université de Montréal)
Translation Journal (Accurapid – The Language Service)
International Journal of Interpreter Education (Conference of Interpreter Trainers)
Babel: International Journal of Translation (John Benjamins)
Interpreting: International Journal of Research and Practice in Interpreting (John Benjamins)
Translation and Interpreting Studies: The Journal of the American Translation and Interpreting Studies Association (John Benjamins)
Target: International Journal of Translation Studies (John Benjamins)
Interpreter and Translator Trainer (St Jerome Press)

New Voices in Translation Studies (International Association of Translation & Intercultural Studies)
Translation Studies (Routledge)
International Journal of Translation and Interpreting Research (University of Western Sydney, Australia)

Sign language specific
Sign Language Studies (Gallaudet University Press)
Journal of Deaf Studies and Deaf Education (Oxford University Press)
Sign Language Translator and Interpreter book series (St Jerome Press)
Deafness and Education International (John Wiley and Sons)
Sign Language Linguistics (John Benjamins)
Journal of Interpretation (Registry of Interpreters for the Deaf)
Research on Interpretation book series (Gallaudet University Press)
Interpreter Education series (Gallaudet University Press)

Appendix B

Overview of research writing structures (Cresswell 1994)

Qualitative research format
Introduction
- Statement of the problem
- Purpose of the study
- The grand tour question and sub-questions
- Definitions
- Delimitations and limitations
- Significance of the study

Review of literature
Procedure
- Assumptions and rationale for a qualitative design
- The type of design used
- The role of the researcher
- Data collection procedures
- Data analysis procedures

Methods for verification
Outcome of the study and its relation to theory and literature
Appendices

Quantitative format
Introduction
- Context (Statement of the problem)
- Purpose of the study

- Research questions or objectives or hypotheses
- Theoretical perspective
- Definition of terms
- Delimitations and limitations

Significance of the study

Review of literature

Methods

- Research design
- Sample, population or subjects
- Instrumentation and materials
- Variables in the study

Data analysis

Appendices: Instruments

"Mark my words"

The linguistic, social, and political significance of the assessment of signed language interpreters

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This paper examines a critical area of interpreting research – assessment – as it pertains to the training of signed language interpreters (SLIs). The idea of testing as a wholly objective assessment of competence is problematized and issues that impact the testing cycle are teased out. These include the design and use of appropriate testing mechanisms. The attitude and expectations of external raters are analyzed, as is internal self-assessment as a means of creating active engagement in learning, and developing critical evaluation skills for later use in professional practice. We briefly consider a small number of empirical case studies that have explored aspects of assessing student interpreters. Finally, we draw attention to established pan-European frameworks, specifically the Bologna Process, for modelling fitness to practice at undergraduate and graduate levels and usefulness in assessing the competencies of graduating interpreters. Given the limited empirical research that exists on the assessment of SLIs, this chapter suggests a number of themes where further studies would be beneficial.

Introduction

A crucial area of research that has been underdeveloped in the signed language interpreting (SLI) literature is the assessment of students and practitioners. Assessment of signed language interpreters is fraught with concern about fitness to practice, the competencies required to interpret effectively in a broad range of settings, idealized notions of desired competence versus minimal skill levels required to undertake the task at hand, as well as issues relating to language teaching, language status, and societal attitudes toward deaf communities and signed languages. Yet, many trainers of interpreters and many of those engaged in the assessment of interpreter quality have never had any formal training in applied linguistics generally, or specifically, in the area of language testing.

Fitness to practice as an interpreter entails more than being able to mediate between language A and B. In addition to bilingual fluency, interpreters must demonstrate competencies in "soft" skills (Humphrey and Alcorn 1996; Stewart, Schein and Cartwright 1998; Mindess, Holcomb and Langholtz 1999; Roy 2000; Janzen 2005; Napier, McKee and Goswell 2006; Napier 2009). These skills require assessment, both within training programmes as students develop skills (*formative assessment*), and as they complete training (*summative assessment*). In some countries, including the US, Australia, Canada, Sweden, and the UK, there are also established, sometimes statutory, accrediting licensing bodies that have responsibility for assessment of fitness to practice and specific domain related competencies.

Assessment of interpreters is a significant issue for academic progress and also has an important social function – policing access to and progress within the profession. Despite this, little has been published about the practice of assessment of SLIs; the available literature focuses mainly on descriptions of assessment protocols for registration or accreditation with national bodies. Traditionally, the act of interpreting (i.e., "doing" interpreting) has been more highly valued than giving thought to or theorizing about interpreting (i.e., "knowing about" interpreting). This is revealed by the relative dearth of interpreter research until the 1990s, reflecting prescriptive rather than empirically based descriptions of the act of interpreting. This is particularly true of the lack of empirical data on the assessment of interpreters of spoken and signed languages. Indeed, we are only beginning to consider what it is that students and professionals need to facilitate internalization of professional ideals and practices (e.g., Mindess, Holcomb and Langholtz 1999; Roy 2000; Napier 2005).

This chapter considers issues of assessment as they pertain to the training of interpreters. We problematize the notion of testing as wholly objective assessments of competence and tease out central issues that impact testing including (1) test type: achievement versus proficiency; (2) the testing cycle; (3) the Bologna Process; and (4) a review of some case studies that look at the assessment of student interpreters. Finally, in terms of the social and political rationale for testing, we will briefly discuss the issue of registration of interpreters versus the accreditation of training courses.

Test type: Achievement vs. proficiency

Testing is a facet of everyday life. We test learner drivers, we test language proficiency, and we test interpreters. In some cases, we test before, as well as during and at the end of training. In order to practice, some countries require

mandatory testing after completion of training to be registered with a state license or its equivalent. Our focus here is the testing of student interpreters, while acknowledging that there is what is known as "*washback*" from external factors such as national registration testing requirements (e.g., Sweden, UK, Australia, US, Canada).

Test purpose is a critical factor in determining the kind of test (i.e., pen and paper test, performance test, etc.) to be applied in a given setting. Test purpose is typically associated with the distinction between achievement tests and proficiency tests. *Achievement tests* are associated with the process of instruction. They assess what a student has achieved with respect to the curriculum taught in a programme. McNamara (2000) notes that achievement measures tend to be associated with portfolio-based assessments, course tests, as well as the assessment of course work. With achievement tests, assessment is focused on student development vis-à-vis course learning outcomes. There are a number of features of achievement testing: (1) it should support the teaching it relates to; (2) it may be self-enclosed, that is, focus on aspects of language grammar or use that has been covered in the curriculum rather than on language use in the wider world; (3) it can be highly innovative, and (4) is often associated with "alternative assessment", which stresses that assessment is integrated with the goals of the curriculum, and pushes for a constructive relationship between teaching and learning.

While achievement tests assess skill development in individual students with respect to what they have already learned, *proficiency tests* are concerned with future language use, without reference to the teaching process. Future language use is considered as the criterion against which proficiency is measured. Performance features are frequently incorporated into the design of proficiency testing. For example, aspects of the linguistic environment that medical personnel will encounter are included as test criterion (i.e., can a doctor communicate effectively with a patient who speaks language X?).

Here we see relevance for interpreter trainers and the potential difference regarding what educational programmes are asked to assess (most frequently, achievement) versus what post-graduation testing (typically registration bodies and assessment boards) is concerned with, namely proficiency. Educators, particularly towards completion of courses, are concerned with proficiency, though what is measured is required to be related to what has been taught, so there is always an achievement aspect involved in course-related testing.

An excellent example of sound creation of proficiency tests for interpreters is presented by Angelelli (2007), who outlines the processes involved in creating authentically driven performance features associated with medical interpreting in the test design phase. Working with stakeholders (native speakers of English, Spanish and Hmong, medical practitioners and pharmacists and practicing interpreters),

Angelelli's team created authentic, criterion driven test data to assess language proficiency and interpreting readiness of candidates before and on completion of specialist training. She notes that criterion-referenced tests allow testers to "make inferences about (a) how much language ability a test taker has (LP) and (b) how much interpreting ability a test taker possesses (IR), rather than merely how well an individual performs relative to other individuals." (2007: 71). McNamara (2000) makes the related point that testing is "about making inferences; this essential point is obscured by the fact that some testing procedures, particularly in performance assessment, appear to involve direct observation" (p. 7).

These factors are vitally important in evaluating interpreters. We are, on the one hand, assessing a student based on a given performance, but we also have to differentiate between language proficiency and interpreting competence. In practice, however, we seem to treat all tests as an indicator of all possible future performances in authentic settings. This is why it is critical to separate out the distinction between the *criterion* (i.e., the relevant communicative behaviours in the target setting) from the test.

The criterion can be described as an unobserved series of performances subsequent to the actual test. Those future, unobservable performances are in fact the target in proficiency tests. It is the characterisation of the essential features of the criterion that influences the design of the proficiency test (i.e., the real life settings that we aim to simulate in the test will influence the way the test process is structured). In contrast to the criterion, the test itself is a performance or series of performances, which simulates, represents, or is sampled from the criterion. It is only the test itself that is observed. Thus, with proficiency tests, we are making inferences about what a student *might or should* be able to do on the basis of our observation of the test situation.

One of the things that must be borne in mind is the idea that all language testing, which includes the testing of interpreters, links to real-world ability. While materials and tasks included in any kind of language test can be relatively realistic (or "authentic"), they can never be "real". Interpreter students are not "really" interpreting for a job interview, or at a meeting with the bank manager, and all parties are conscious of the fact that they are participants in a test environment. When assessing SLI candidates, for example, we ask questions like the following: "Will this student be able to cope with situation x or y in the "real world"? Or in a given "specific domain?" This in turn leads to the question of whether final assessments of students really are achievement focused or proficiency focused. Indeed, are faculty, students, employers, and registration bodies clear about what kinds of tests we have in place and why?

A number of other restrictions also apply with respect to criterion based testing or proficiency tests. First, limits always apply to the authenticity of tests

because of the differences in the conditions under which a test is administered. For example, a student may be prepared for interpreting a lecture on a specific issue for a test, but may, in future "real life" situations, not conduct detailed preparation, and the attention given to preparation for the test scenario may inflate their result vis-à-vis future performances. Thus, changing conditions can jeopardise validity, and with it, the generalizability of test results.

As McNamara notes, "The point is that observation of behaviour as part of the activity of assessment is naturally self-limiting, on logistical grounds if for no other reason … most test situations allow only a very brief period of sampling of candidate behaviour … oral tests may last only a few minutes" (2000: 9). Thus, most testing situations allow only a brief sampling of candidate performance and behaviour, the test is restricted to what it tells us about candidate performance in the test context, and from this context, we infer behaviours in other more generalised (or specific) settings. Given this, test validation issues also arise. We are obliged to consistently investigate the defensibility of the inferences made on the basis of test performance. We must also bear in mind that the act of observation can impact on behaviour, described as the "Observer's Paradox" (Labov 1969). This applies to test candidates as much as to the subjects of sociolinguistic studies. That is, the very act of observation can change the candidate's normal behaviour, and it is their normal behaviour that we want to see.

The issue of how we judge student interpreters' performances is critical. McNamara (2000) suggests that:

> In judging test performances … we are not interested in the observed instances of actual use for their own sake; if we were, and that is all we were interested in, the sample performance would not be a test. Rather we want to know what the particular performance reveals about the potential for subsequent performances in the criterion situation. We look, so to speak, underneath or through the test performance to those qualities that are indicative of what is held to underlie it. (p. 10)

Following from this we can ask what other factors influence the outcome of assessment and what can we do about these factors beyond being aware of them?

The testing cycle

The testing cycle is key. Very often those outside of education assume that testing is a straightforward process: it is assumed that you teach, you test, the students pass or fail, and their percentile score is a direct indicator of ability (e.g., a 60% grade is seen as equally getting the interpretation 60% right). However, a cycle of evaluation and review is required in creating appropriate testing frameworks. The actual

operational use of the test generates evidence about its own qualities – that is, as educators, we need to learn from the experiences we have in running tests, and take elements of that learning into account when we design and run subsequent tests.

Test design

Test design involves three key phases: (1) background issues, (2) test content and test method design, and (3) review validation and revision. The kinds of questions that arise influence test method and design, and include consideration of the constraints that impact on test design and implementation as well as the resources (financial, physical, human) that are available for test development and operation. The issue of test security is another essential component. Is test content unseen? Is it partially shared with candidates? Is test content known in advance? Finally, external factors must be considered including examination protocols within the institution that must be followed, assessment bodies who have agreed on specific formats for testing and reporting back or for accreditation of programs.

Test content and test method design

The first issue with regard to test content and test method design entails making decisions about test content – namely, what goes into the test. This links to how we see language and the use of language in a test situation (i.e., our view on test construct), and how we link test performance to usage of languages in a real-world interpreting context.

In major test projects, McNamara (2000) notes that teams may start by defining the test construct. The theoretical framework of the test may be the first step taken in test design, and this is frequently the case in vocational training where the training approach will determine the approach to assessment (or indeed, where external criteria for assessment determines the approach to training). This is a constraint that clearly operates on assessment within SLI training.

The second issue is that of identifying *test domain*. Doing so involves careful sampling from the domain of the test. We must identify the set of tasks or the kinds of behaviours that arise in the criterion setting. This may include introductions, managing turn-taking and ratification behaviours. In addition, it might also incorporate sociolinguistic norms in a given context, such as use of names and titles, or maintenance of register across the task as in Angelelli's (2007) study. In further considering the medical environment, other behaviours possibly incorporated are the capacity to interpret across registers and to bridge perceived gaps in education and world knowledge between medical practitioners and patients.

Further issues for consideration are *test method* and *authenticity*. Test method includes aspects of test design and scoring and issues of authenticity of the test, which we have mentioned already. Earlier, we outlined how criterion for proficiency tests should be based on job sampling, linked to what interpreters do in practice, but some constraints also operate. McNamara (2000: 27) notes that "… test design involves a sort of principled compromise". He says this because:

> On the one hand, it is desirable to replicate, as far as possible in the test setting, the conditions under which engagement with communicative content is done in the criterion setting, so that inferences from the test performance to likely future performance in the criterion can be as direct as possible. On the other hand, it is necessary to have a procedure that is fair to all candidates, and elicits a scorable performance, even if this means involving the candidates in somewhat artificial behaviour. (ibid.)

He also notes that, "As assessment becomes more authentic, it also becomes more expensive, complex and potentially unwieldy" (2000: 29). From this stems another important issue – that of validity. If tests cannot be controlled in terms of contextualisation to a greater or lesser degree, then there are issues arising in terms of how valid the test is. The issue of resource limitations is real and one that we must also acknowledge as impacting on what we do when we test.

A fourth issue is *test specification*, which refers to the set of "rules" for the test, comprising written instructions for implementation. Instructions function to make explicit the design decisions regarding the test and explicate the test's structure, duration, authenticity, source of testing material, the extent to which authentic materials are altered, response format, test rubric, and scoring system. Test materials are then written to these specifications.

The next stage in the test cycle is trialling the test, which should include taking feedback from test takers, followed by information gathering regarding modifications necessary before its implementation. Trialling tests can be difficult to do because of the constraints on time, resources and sample populations that exist in many countries, but the process is worthwhile in terms of solidifying the validity of the test process. It is highly probable that the small community of interpreters and interpreting students is also at the heart of the limited amount of published data on interpreter assessment for both spoken and signed language interpreting. Leeson (2007) and Bartlomiejcyk (2007) identify the limited number of empirical studies focused on the assessment of interpreters, especially interpreters in training. A determining factor may be that the anonymity of participants can be compromised because of the small pool of interpreting students in many countries. Making "mock" examinations available and ensuring that students have access to the test specifications prior to the test are hallmarks of university education. This

principle is applied in many "high stakes" testing domains too (e.g., in Canada, AVLIC make sample tests available to candidates), though in other regions, this is unfortunately not the case.

Rater attitude and expectations

Another key issue is who rates performance and their impact on testing outcomes. While informal judgment formed by peers and members of the deaf community is a standard component of being an SLI, judgment also impacts in a subjective manner on formal testing. However, if we set testing contexts up as objective, reliable indicators of ability, then we also have to account for the subjective judgment calls that raters make. Much testing focuses on SLI proficiency in communicative situations, with data marked live or, where recorded, marked *post-hoc*. Ratings awarded to a candidate are not solely a reflection of the candidate's performance, but are also a reflection of the qualities of the person who has judged that performance.

Following McNamara (2000), we can say that most rating schemes entail the assumption that if rating category labels are clear and explicit, and if raters are trained to interpret and apply these labels as per the intention of the test designers, then an objective rating process is possible. The reality is that rating is an intractably subjective process, containing a significant degree of chance associated with both the process and the rater. Given this, there are two choices – avoid direct testing or acknowledge the need for frameworks to be established which facilitate judgment by the raters. The latter can entail the establishment of "cut-off points" in hurdle tests (i.e., establishing the minimum cut-off point for passing on the basis of "good enough"/"not good enough") or employ a gradient continuum of marking (i.e., provide feedback to students in terms of their progress, mapping their performance to institutional marking scales). Crucially, raters must be trained to work with rating scales and understand what it is that they are being asked to mark, and for what purpose. They must have clearly outlined sets of rating criteria that they can return to when determining borderline cases, and they must demonstrate an understanding of clearly defined outlines of attainment aligned to institutional marking schemes that are central to the process of training.

From our discussion thus far, we can say that both achievement and proficiency testing are used in SLI training, though sometimes we may combine (and perhaps also confuse) these. The majority of interpreter tertiary level training programs seem to include multiple points of testing over a significant period of time (i.e., two to four years) in order to evaluate student development and performance with respect to stated course objectives, learning outcomes, and external testing requirements. Despite the widespread use of assessment, there is a severe lack of empirical data assessing the processes applied or the outcomes of the approaches

we adopt. However, in Europe, there have been moves to "force" greater attention to the relationship between teaching and learning and assessment via the Bologna Process.

The Bologna Process

Institutional protocols don't exist in isolation; in the European Union (EU) there are EU-wide systems that have been implemented over the past number of years, under what is known as the Bologna Process.[1] This effort is a pan-European move towards greater transparency in education at third and fourth level, which has focused attention to issues such as course description, student workload, course learning outcomes and assessment criteria. This focus demonstrates a commonality among all facets of higher teaching and learning across the European Union (e.g., the introduction of so-called BAMA courses (i.e., a five-year pathway to Bachelor and, ultimately, Master level qualifications). The driving principle behind this initiative is that European higher education is vital to realizing a knowledge-based, creative, and innovative region.

The Bologna Process has led to the publication of sets of descriptors for use in assessment, known as the Dublin Descriptors. The document states that students with a Bachelors degree (Level 5 in their terms) should demonstrate the following competencies upon graduation:

1. have demonstrated comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge that builds upon and supersedes their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;
2. have the ability to apply expertise in a comprehensive range of cognitive and practical skills in developing creative solutions to abstract problems;
3. can apply their skills and competence in management and supervision in contexts of work or study activities where there is unpredictable change and review and develop performance of self and others;
4. can apply their practical skills in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining projects and arguments and solving problems within their field of study;

1. See www.ehea.info/.

5. have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on basic social, scientific and ethical issues;
6. can communicate information, ideas, problems and solutions to both specialist and non specialist audiences; and
7. can develop learning skills that are necessary for them to continue to undertake further study with a basic degree of autonomy and practical work within defined responsibilities (see http://www.mqc.gov.mt/pdfs/Grid%20of%20 statements.pdf).

The Bologna Process may also be useful in thinking about the assessment of interpreters trained in Europe and further afield. We can consider the Dublin Descriptors with respect to what we expect interpreters to do, and consider how relevant these are for fitness to practice upon graduation. We can further use the descriptors provided above as a starting point for posing research questions in an empirical analysis of graduate interpreter competencies:

1. Requires graduates to demonstrate comprehensive, specialized, factual, and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge that builds upon and supersedes their general secondary education. This is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by cutting-edge knowledge from their field of study. Educators expect that SLIs will have an understanding of the social, cultural and historical context that deaf people operate within. It is also expected that they will have a comprehensive understanding of the main issues that impact on interpreting. SLIs need to be able to harness theory; including empirically driven analyses of interpreting situations (e.g., Van Herreweghe (2002) on turn-taking in meetings in Flanders; Brennan, Brown and MacKay (1997) regarding interpreting contexts; Johnson (1991) regarding the importance of preparation; Stone (2005) regarding how deaf interpreters prepare in contrast to how hearing interpreters prepare). Further, interpreters should be able to utilize this knowledge in analyzing their own practice and, potentially, the practice of their colleagues, facilitating the development of critically reflective professionals (Leeson 2007).

2. States that graduates should have the ability to apply expertise in a comprehensive range of cognitive and practical skills in developing creative solutions to abstract problems. This follows from the last point. There is little benefit in teaching interpreters to "just do it" without giving time to reflection on why they do it "that way" in one situation yet another way in a different situation. Building bridges between theory and practice is essential, and educators and researchers alike need to consider further how we can assess student decision-making

processes. One approach is the Think Aloud Protocol (TAP), which has been used widely in translation studies, and more recently in aspects of signed language interpreting research (Sadlier 2007, 2009; Stone 2005).

3. States the expectation that graduates can apply their skills and competence in management and supervision in contexts of work or study activities where there is unpredictable change, and review and develop their own and others' performance. Interpreters need to bring their training to bear on their professional work, and working as an SLI entails unpredictable situations. A major issue is how we assess this competency. Clearly there is overlap with the last point (i.e., self-assessment of performance) but this also falls within the scope of internships or practical placement-based assessment. Interpreter placement is one of the most problematic situations in assessment, since work-based raters are usually not trained in assessment, and may provide "naïve" responses to student performance. While facing issues of inter-rater reliability, educators still need to know how other interpreters, deaf clients, and interpreting agencies assess our students. At the same time, we want them to recognize that in-process assessment is formative (and achievement based) while successful completion of the program, and final assessments may be proficiency based. This is something we will return to again later in this chapter. An area ripe for empirical research, investigations may identify what criteria "naïve" assessors are judging and how they map onto the criteria established within formal training programs; examine how learning outcomes for established programs map onto work-oriented competencies, and explore how newly qualified interpreters skill-sets compare with interpreters with a certain level of experience.

Lets consider (4) and (5) together. We want interpreter students, on graduation, to solve problems relevant to their field of work, e.g., ethical dilemmas. We can assess this through Problem-Based Learning (PBL) (Sloane 2005), an approach that engages students in actively seeking solutions to problems by using critical thinking skills. PBL is a departure from traditional learning in that students become responsible for finding creative responses to problems as members of teams and are partners in the assessment of the group's work. Critically, PBL also entails student engagement in their own formative and summative assessment, with both their own and their peers' evaluations contributing to their actual scores for individual modules or courses. Research that examines the benefits of the PBL approach in supporting critical thinking skills and absorbing the key learning objectives for a given interpreting course would be fruitful.

6. Focusing on communication, a key theme for SLIs is that graduates can communicate information, ideas, problems and solutions to both specialist

and non-specialist audiences. This is an essential skill, with researchers arguing that the main prerequisite of translation activity is linguistic and cultural competence for both source and target texts (Nord 1992). In training, we assess this over time by testing skill in multiple domains, looking at register flexibility, and through the assessment of written materials. This descriptor is heavily emphasized, becoming *the* skill-set on which SLI assessment traditionally concentrates. Despite this, very little empirically-driven data has been generated that examines development of skill in SLI students. In turn, there seem to be very few research-driven programs in place. This lack of evidence-based programs is a crucial area requiring attention. It is one which the cognate field of language teaching has engaged with, for example, via the Common European Framework of Reference for Languages (CEFR) and the associated European Language Portfolio (ELP) (Council of Europe 2001).[2]

7. Requires graduates to be able to develop learning skills that prime them for further study and for practical work within defined responsibilities. Making progress in the profession entails the need to provide postgraduate options for interpreters (e.g., additional languages or in specialist domains as per the EUMASLI programme offered collectively by Herriot Watt University (Scotland), the Humak Institute (Finland), and the University of Magdeburg (Germany)). These types of graduate options will not only ensure more reflective, highly trained practitioners, but will also encourage the development of what Daniel Gile calls "practice-searchers," professional interpreters engaged in research on interpreting. This, in turn, will lead to the potential for greater, and more critically evaluated understanding of our work, which can then feed back into training.

The question remains as to how we assess these skills at completion of undergraduate training, bearing in mind that in many countries, training is not available at the university level at all. In part, these are the traditional skills that link to academic autonomy, which we also seek to assess in internship or placement programmes. Aside from the important issue of promoting the academic as well as practical aspects of interpreter education, we should ask if the Dublin Descriptors are adequate to the task we set for ourselves as teachers and evaluators of SLIs. Questions include:

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2. See Leeson and Byrne-Dunne (2009) and Leeson and Grehan (2009) for discussion of how the CEFR has been adapted for the teaching and assessment of Irish Sign Language and a range of other signed languages included in D-Signs Project. D-Signs is a Leonardo da Vinci project funded by the European Commission. The project is led by the University of Bristol's Centre for Deaf Studies. Partners include the British Deaf Association (Wales), the Centre for Deaf Studies, Trinity College Dublin (Ireland), Systema (Greece), the University of Nicosia (Cyprus) and Charles University (Czech Republic). See http://www.dsigns-online.eu/ for further details.

As interpreter educators, are we clear about the criterion that forms our proficiency test bases? Do we clarify our criteria to students for transparency purposes? Do we clarify our criteria for examiners to facilitate norm-referencing across raters and test score validity testing? We should bear in mind that interpreting research suggests that a "clear explication of the assessment criteria used in exams enhances the learner's autonomy and may exert a considerable influence on the quality of students' work" (Bartkomiejczk 2007: 251).

We can also ask if we are efficiently linking core competencies for interpreter performance to syllabus design and assessment criteria. That is, are we actively checking that test content assesses what it is we say we want students to be able to do on completion of their program? This entails that our programmatic learning outcomes are aligned to the competencies that stakeholders and professionals associate with fitness to practice, and that these competencies are embedded in the curriculum and explicated in module learning outcomes and assessed in a range of ways.

While very few studies examine the process of student testing within interpreter programs, a small number of case studies are available, which are outlined in the next section.

Student self-assessment

One of the few studies that investigates student interpreters' self-evaluations is Bartlomiejcyk (2007). She takes as a starting point the quality assessment of professional and student interpreters in a range of contexts, focusing on two specific studies of student interpreters of Polish-English. She reports on a study of 18 students who were asked to evaluate their performances, focusing on strategic processing they applied while on task. Her informants were completing their second or third year of simultaneous interpreting practice and her study focused on their analysis of a ten-minute speech from English to Polish (B-A) by a Dutch Prime Minister.

Bartlomiejcyk reports a significant trend towards negative self-assessment combined with attention given to how faithful the target language (TL) is to the source and to issues of completeness of the TL message. In contrast, Bartlomiejcyk notes that students rarely focused on issues of presentation such as monotonous presentation, hesitant voice and long pauses.

Bartlomiejcyk suggests that the focus on negative self-assessment may owe much to the fact that in class, teachers (who have limited time at their disposal) typically present feedback regarding the gravest errors in student performances. She also notes that neither problems with faithfulness to the original nor lack of

completeness of the TL message can be rectified simply by student self-awareness. She suggests that certain errors (such as errors of sense and errors of omission resulting from poor proficiency in the TL) can only be overcome by increased TL proficiency. In contrast, Bartlomiejcyk notes that if errors arise as a result of inadequate strategic processing or what she calls "imperfect allocation of processing capacity" (ibid.: 263), then focused training can assist in improving performance output.[3] She further suggests that product evaluation (i.e., a focus on the form, completeness and quality of the TL output) is a task that comes easier to student interpreters than retrospection on strategic processing.

While Bartlomiejcyk proposes that students at this level are focused on product rather than process, Leeson (2007) found that a sample of student Irish Sign Language (ISL)/English interpreters, at a much earlier stage of training, exhibited the capacity to reflect on both product and process, albeit at a fairly basic level. Considering meta-cognition as a crucial skill for interpreters, Kruger and Dunning (1999) note that "…students self-perceptions were not good predictors of their skill level: those who were unskilled tended to be unable to assess accurately their ability". They go on to say, "Not only do these people make erroneous conclusions and make unfortunate choices, but their incompetence robs them of the meta-cognitive ability to realize it" (p. 121).

In contrast, lack of meta-cognitive awareness leads to a lack of weighting of specific data, poor cohesion and increased difficulty in getting to the meaning (see Jones 1997; Marschark et al. 2005; Russell 2007). Given this, we suggest it is critical that SLIs have the metacognitive skills necessary to appraise their performance and skill levels in a way that reflects actual – rather than imagined – skill level. The objective is to integrate self-analysis skills with knowledge of how to develop practical methods for improving areas of weakness (via guidance). Such critical introspection allows for reflection on a range of issues including:

1. Appreciation of the fact that meaning cannot be known simply by understanding all of the words or signs of a language. Instead, meaning is co-created in context and is, by nature, intersubjective in nature (Wilcox and Shaffer 2005). Pragmatics leads language use regardless of whether the linguistic event is monolingual or if it entails interpreted interaction (Janzen 2010).

3. Of course, we would not wish to suggest that a conduit-based understanding of language is one that should be embedded in teaching or assessing interpreters. For further discussion on this point, and for discussion of a cognitive model of interpreting, See Wilcox and Shaffer (2005).

2. Indicators of what might linguistically constitute "quality" signed language interpreting; for example, Cokely's (2004) miscue analysis and discussion of lag-time effect in simultaneous interpreting, Baker's (1992) translator linguistic management strategies, as well as work by interpreting studies researchers in Europe, the US, Canada, Australia and New Zealand, e.g. the work of Harrington and Turner (2001), Baker (1992), Stone (2007), Roy (2000), Metzger (1999), Mindess (1999), Wadensjo (1998), Gile (1995), Janzen (2005), and Wilcox and Shaffer (2005), among others.
3. Consideration of the quality of the cultural turn in interpreted events such as the modality specifics of signed-spoken language interpreted interactions as well as linguistically referenced cultural specific indicators (e.g., Brennan and Brown 1997). This is perhaps the most difficult for student interpreters to appreciate in a deep way. Native signer SLIs often struggle with contextualizing cultural data from ISL into English, while non-native signer SLIs often don't identify signals of cultural significance beyond the most general levels.
4. Attentional issues arising in student interpretation (e.g. Giles' Effort Model).
5. Ethical issues that arise, including co-interpreting issues or conflicts.

Some simple caveats must be noted. Despite Bartlomiejcyk's (2007) observation that student interpreters automatically assess their own work, students cannot make informed reflections without guidance. They cannot reflect on how interpreting theory and practice relates to them if they are not introduced to the literature. The "language" of self-reflection has to be taught and developed through, for example, Think Aloud Protocols, group work, and self-analysis. Finally, feedback from teachers and mentors in structured programs is essential.

This type of guidance might facilitate and impact on the quality of student performance in a number of ways. First, reflection on practice and implementing the learning from reflection is one of *the* defining pathways in the development of expertise. Practice in isolation is futile as mistakes, uncorrected, can become habitual, to a sense of "I'm alright" or conversely, "I'm no good – why bother", which links to Kruger and Dunning's (1999) comments on meta-cognition, as discussed earlier. Leeson (2007) suggests that such *guided* self-reflection provides student interpreters with the tools to continue to make progress on the path to expertise beyond the scope of their training.

Leeson also considered student reflections on how signers and speakers package information, on the form and function of the source language (SL), and on options that interpreters have for managing that in the target language (TL). She found that that even at a relatively early stage of formation, students reflect on both product and process. The kinds of language that students use to analyze their own performances include:

(1) In staying away from the form of the source language, when working into the TL, the interpreter was able to paraphrase and to extract the meaning of the speaker to gain equivalence in the TL. Seleskovitch (1978) suggests that there should not be word for word translation but rather, the interpreter needs to attain a search for equivalents in two different languages.

(2) Considering Gile's Effort Model, I must have been putting too much emphasis on listening and analysis and neglecting the production element in the process.

Example (2) demonstrates capacity to consider processing strategy. This student is reflecting on a segment where the TL is not cohesive and simply provides literal sign for word renderings of what was present in the SL. The student identifies where her particular problem arises, and, with coaching from the lecturer, seeks strategies to redress the balance in performance. As in (2), the student in (3) notes that problems arise because they do not adequately parse information in the TL appropriately.

(3) Jones (1997) talks about the importance of actively listening. I made a lot of errors in this piece but they were mainly down to the fact that I was not actively listening. Instead I was trying to get as much of the information across on a surface level. This meant that my choice of words and grammar were heavily influenced by my first language, which is English, rather than the language I was working into (ISL).

Strategic on-task thinking is also reported on. For example, one student discussed how she strategically omitted SL components in a bid to produce a cohesive TL. Here, we must take into account that in ISL, there are significant linguistic outcomes associated with gendered generational signing (see LeMaster 1990, 1999–2000; Leeson and Grehan 2004; Leeson 2005; Leonard 2005; Leeson et al. 2006; Leeson and Saeed 2011).

In (4) below, the student comments on her interpretation of two pieces: one by a woman in her sixties (Patricia) and another by a younger male signer in his late twenties (Sean). The woman made great use of sandwiching fingerspelled items and signs, when introducing nominals for the first time. This student wrote:

(4) As Patricia is a different age from Sean, she often signed a word and then fingerspelled the same word. I found it hard to know what Patricia was doing, however, I realised the fingerspelling was not entirely necessary as most of the words spelled had a sign which had already been used…This shows the interpreter is required to have a wide knowledge of variation in ISL…

In stating the case for student self-evaluation, it is important to emphasize that there has to be a balance between space to reflect and space to "do" interpreting. There is clearly a need to balance out assessment to ensure that students are not rewarded for knowing where they are going wrong in situations where they need to *act* appropriately. At the same time, meaningful self-evaluation (i.e., where the student's assessment of their own work has a value associated with their result) has value when it is built into training and is seen as forming part of the pathway from unconscious incompetence to conscious competence and beyond.

Sadlier (2007, 2009) presents on student assessment, considering the views of both test-takers and evaluators. She discusses a case study that explores both test-taker and developer/rater perceptions as well as linguistic and sociolinguistic challenges that arose during the test with respect to theoretical interpreting frameworks. She also considered how testers can work within test design constraints to find an appropriate balance between authenticity and reliability.

Looking at a liaison interpreting test, Sadlier (2007, 2009) notes that students are not expected to have anything approaching the same level of competency as a working interpreter at this stage of development and thus, this test is viewed as an achievement (rather than a proficiency) test. This test is designed to correspond to the learning outcomes in its construct, purpose and content. Test construction is based on the module's learning outcomes, which outline the aspects of knowledge to be measured (Bachman 1990). The test purpose is an achievement test (McNamara 2000). The test assesses the basic skills expected of trainee interpreters at this stage and is not a measure of:

> … end product proficiency … and … content relates to a "real world" scenario which correlates both to the real world of interpreting and to the practice role-plays that occurred during the term, thus aiding validity and reliability (Sawyer 2004).
> (Sadlier 2009: 186)

Sadlier's case study entails three distinct elements: a focus group, a Think Aloud Protocol (TAP) exercise, and an analysis of exam performance. Her findings focused on three main themes: (1) general issues, (2) linguistic issues, and (3) sociolinguistic issues. She found that students had concerns around learning Irish Sign Language (ISL) vis-à-vis previous language learning experiences, and concerns about the test setting itself. Given the importance of language proficiency for student interpreters, and the central role assessment of language proficiency plays within interpreter training programmes, it is interesting that all participants reported a prior negative (spoken) language learning experience which contrasted with their signed language learning experiences. Sadlier points out that such negative views can impact on test-takers' examination performances and the impact

of previous tests can factor as determiners of success and failures in the minds of the test-takers (Shohamy 1982; Ushioda 1996).

In discussing test setting, all participants commented on interpreting process factors, with a particular focus on memory. Students tended to seek to place culpability for poor interpreting process on extrinsic factors. For example, they attributed their difficulties with memory within the test scenario to external factors such as inaccurate or lengthy source language messages even though they had noted capacity management as a key difficulty when acquiring interpreting skills. Sadlier suggests that test-takers are only too aware of the impact that these tests will have on their self-esteem and indeed their future as students, and potential professionals, noting the importance associated with face validity (i.e., ensuring that test takers see a test as valid and authentic) and that they believe in the testing process.

Other issues that challenged students were linguistic in nature. Specifically, the bimodal nature of the communication was challenging, and when using ISL (none of the test takers were native ISL users), they had difficulty in maximizing use of Non Manual Features (NMFs) in their ISL TL product for morphological, syntactic, and affective purposes. They also unintentionally added meaning non-manually – students displayed a frown-like expression, which is problematic as furrowed brows can bear grammatical meaning in ISL, signifying a question rather than a statement or bearing a negative attitude towards the subject under discussion and thus altering the intent of the message.

Another key challenge Sadlier pinpointed for this cohort was the management of numeric and phonetic information that required literal transfer to the TL via the use of number signs or fingerspelling. During the TAP, Sadlier's informants noted that while fingerspelling was not difficult *per se*, while on-task in an interpreting situation, it causes extra pressure due to the requirement to manage all other information that co-occurs with it. Students also experienced difficulty with the use of loci for establishing and tracking reference in the ISL data, as well as sociolinguistic factors such as the management of turn-taking, and ratification of both deaf and hearing participants in the interpreted exchange (following Metzger 1999).

Following from this process, Sadlier built on test-taker feedback when preparing the following year's cohort's test procedures. For example, the test marking scheme was made available to students who were encouraged to apply the system when analysing their own in-class performances. This process assists in developing a clear understanding of the assessment criteria applied and provides clear-cut criteria for self-evaluation independent of testing. This, along with ensuring that students know about the layout of the assessment space leads to better conscious awareness of the test protocols, and such processes are focused on improving face

validity, alleviating the "mystery" of the test (Ushioda 1996; Shohamy 2001), and providing test-takers with greater transparency in assessment. Sadlier's participants reported that this helped reduce assessment process related fears.

Looking forward: Toward better ways of testing SLIs?

Angelelli (2007) and Sadlier (2009) provide pragmatic, focused approaches for dealing with test taking. While these provide an excellent starting point for considering the detail of how we might modify the practice of testing for specific purposes (Angelelli 2007) or for skill development in specific interpreting modes (Sadlier 2009), there are also larger-scale issues with which we must contend.

Most notably, generic tests are frequently used as the basis for assessment of specialist skill, for example, in registration tests with certain thresholds used to mark capacity for domains where no specialist test has been created (e.g., Signature – formerly CACDP, in the UK). Tests that are effectively demonstrating achievement of aspects of the curriculum are forced to function (or, perhaps more accurately, are perceived as functioning) as proficiency tests with respect to what employers want graduates to be able to do in the real world. For example, the consecutive interpreting test that Sadlier (2009) discusses is an achievement test and is not designed to test interpreter proficiency, although some of the simultaneous interpreting tests offered later in the students' program function as both proficiency and achievement tests. Her results suggest a need to increase clarity regarding what purpose a test serves, whom the test is for and why we test this item in this manner at this stage of student development.

Striking a balance

One way of moving forward is by accepting that assessment is sometimes about ticking the box on what students have achieved relative to the curriculum that we cover. We tend to introduce students to elements of performance that are gradient in terms of difficulty. For example, SLI programs tend to introduce students to shadowing exercises, then paraphrasing exercises, then consecutive interpreting tasks before moving towards simultaneous interpretation in unilateral settings, and then moving toward simultaneous interpreting in bilateral and interactive environments. We assess student progress at salient points of development, typically marked by examination periods in institutional calendars. Assessment then, is not typically individuated, despite moves towards "learner centred teaching".

However, in tandem with the achievement testing component of our work, we are also asked to stand over students' fitness to practice on successful completion of our programs. The difficulty lies in identifying the minimum levels of competence required to be a SLI. We may need to consider adopting a set of agreed professional competencies[4], starting with language proficiency.

An increasing number of European universities are working with the Common European Framework of Reference for Languages (CEFR), the Council of Europe's framework for learning, teaching and assessment of languages (Council of Europe 2001). This allows for clearly defined descriptors for working languages, aligned to the CEFR, and mapped to curricula (Leeson and Byrne-Dunne 2009; Leeson and Grehan 2009). From this, there is scope for assessments linked to the CEFR, allowing for cross-linguistic mapping of graduate language competencies. A significant advantage of this system is that students are full participants in tracking their learning, and they engage in regular self-assessment exercises and, in a sense, validate their self-assessments through feedback from lecturers.

Regarding interpreting, we know that assessment of competence is not *just* about language proficiency. As Angelelli (2007) notes, language proficiency *and* a minimal (defined) threshold of interpreting competence must be attained. But this is not enough either. SLIs are required to be "people people", and because of this, we are also looking to measure competency in things that we don't actually teach students to do, such as empathy or the ability to remove one's own ego for the purpose of ensuring that communication amongst participants goes smoothly.

Much of this is the "touchy-feely" element of subjective assessment, as pointed out in the earlier discussion on rater influence on test outcomes, and maps onto the "soft-skills" that interpreters are expected to have. Importantly, these link to what deaf people have called "attitude" – namely, that preferred interpreters are those with a good attitude toward the deaf experience, which has traditionally been given precedence over language skill. In contrast, there is a falling away from the deaf community in some countries, in part as a result of the lack of linkage between training and practice. Cokely (2005) notes that while the deaf community was historically responsible for selecting who would serve their community as an interpreter, this is no longer the case, as deaf communities in the USA are not widely involved in the selection of candidates for interpreter training and assessment. This is an issue in parts of Europe too, often made more complicated because of the low numbers of deaf professionals working at tertiary education

4. Such a discussion would book-end discussion on the aptitudes that potential interpreters should have at entry to interpreting programmes, for example, as per the 2009, "Aptitude for Interpreting. Towards Reliable Admission Testing" conference at Lessius University College, Antwerp, Belgium.

level where interpreters are trained. No data is available with respect to the European context, but informal discussion with deaf and hearing colleagues from various parts of Europe suggest that there are barriers to deaf people's participation in interpreter training (e.g., because higher institutes in some countries demand masters or PhD qualifications that many skilled teachers do not yet have for many reasons). Further, we know that there are problems with interpreter quality in practice (e.g., Brennan, Brown and MacKay 1997; Brennan 1999). The impact of this divide on the selection, training, and perceptions of signed language interpreters in deaf communities is yet another area ripe for research.

Conclusion

Assessment is a process, which entails a shuttling between review of test design, criteria, resources, washback issues, rater training, validation and review, potentially leading to revision of what we are doing. SLI training does not exist in a vacuum. High stakes testing, external to our programmes (i.e., registration testing) also impact on our teaching and assessment protocols in some countries.

Proficiency testing must be explored, debated, and analysed more fully by programme deliverers and by pan-continental organisations of interpreter trainers. We must consider a range of questions – both in-house, and via empirical research processes – including: (1) Are we adequately separating out language proficiency from interpreting proficiency?; (2) Are we clear about the criterion we are using in preparing proficiency tests? Are they appropriate?; (3) Are we overgeneralising inferences drawn from certain test domains and applying them beyond the scope of their applicability? (e.g. general tests used to mark proficiency, but not specified competence, to work in medical/legal domains); (4) Are we adequately training assessors and particularly, those working as "naïve" raters in the field?; (5) Do we share a common view on what interpreters should be able to do in order to be "fit for practice" in a specific geographical territory (e.g. the European Union)? If not, why not?; (6) What are the core competencies that we wish to see graduates achieve?; (7) Are we mapping these onto our training programmes in an adequate manner? Are we effective in doing what we set out to do? Are these adequately benchmarked vis-à-vis the Dublin descriptors that underpin the Bologna Process for European training institutions or equivalent pan-continental educational markers in other instances?; (8) Are we building student self-assessment into the process or excluding it? Why?; and (9) Are we empirically cataloguing what we do when we test interpreting students and professional interpreters? Are we learning from our experiences of testing or embarking on assessment predicated by flawed assumptions of what testing entails?

As we have seen, assessment is a complex issue and we must be sufficiently sophisticated in our response to the challenge of ensuring fair, appropriate and authentic tests that we can stand over, which external parties see as valid and reliable, and which serve to appropriately reflect fitness to practice requirements. We should be mindful of how transparency with respect to assessment protocols can aid student progress, and we should empirically look at the value of student self-evaluation as a tool in developing critical thinking and autonomous learning for student interpreters.

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This chapter is dedicated to Laura Sadlier (1977–2011), a dear colleague and friend whom we miss dearly.

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Developing and transmitting a shared interpreting research ethos

EUMASLI – A case study

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Sign language interpreters monitor professional encounters to make informed choices in specific interactional constellations. For the profession, progress crucially depends on transcending individual intuitions and communicating experiential knowledge in the light of theory. Introducing a research perspective encourages the evolution of a practice-oriented research community and enables interpreters to substantiate notions of "best practice". To develop such a perspective, we need to impart standard methods and concepts of empiricism within and beyond interpreting studies, and to transmit a general research ethos informing the daily practice of practitioners. Here we report an attempt to enhance the research orientation of an international group of working professionals in the quest for a research ethos to be developed by the profession as a whole.

Introduction

Sign language interpreting has seen rapid development in Europe in recent decades. The weaknesses of earlier informal arrangements have been recognized for some time, giving rise to the development of professional services to provide interpreting between hearing and deaf people. Training courses and assessment procedures have been established, but vary greatly in content, methods, and quality between and within different European countries. In many countries, training consists of an extended sign language skills course, often offered by adult education centers or deaf associations. While this is better than having no training at all, most experts and experienced practitioners agree that no less than a three- to four-year period of full-time training is needed to acquire basic competencies for the professional

application of sign language and interpreting skills. In particular, one limitation of first-level programs is their lack of engagement with research processes.

This paper introduces an experimental approach to addressing this issue. We believe that high-quality interpreting services depend upon practitioners knowing not only *what* to do but *why* one might do it in a particular way. Interpreting, we argue, must be a reflective practice because interpreters are context-sensitive decision-makers, not automata. The ability to be reflective in this way is enhanced by a systematic understanding of intensive analyses of interpreting – in other words, by knowing what research uncovers about interpreting. The best way to engage with research is by doing research. In the account that follows, we therefore introduce a higher-level sign language interpreting course with a research component aiming to advance participants' capacities as interpreting providers and researchers, and thus as leaders in their profession.

To provide practicing professionals of sign language interpreting with the theoretical underpinnings and conceptual tools to allow for a research-oriented approach to the professional field is a central aim of the European Master in Sign Language Interpreting (EUMASLI) study program. EUMASLI has been offered since early 2009 to an international group of sign language interpreters as a joint effort by Magdeburg-Stendal University of Applied Sciences (Germany), Humak University of Applied Sciences (Helsinki and Kuopio, Finland) and Heriot-Watt University (Edinburgh, UK). Sixteen students from eight national backgrounds (Germany, Finland, the UK, Belgium, the Netherlands, Austria, Greece, and the USA) entered the course at the first opportunity. The participants are sign language interpreters (SLIs) qualified to first-level academic degree standard and with relevant professional experience, ready to embark on the acquisition of higher-level skills and competencies in the delivery, development and management of interpreting. Students from different national backgrounds are encouraged to interact and learn by comparing divergent social, political, legislative and professional conditions. Taking part in this program should prepare them for both professional activities at an international level and informed practice in their home countries. While important steps have been taken in the participating countries towards the recognition of sign language interpreting as an essential element in enabling deaf people to be active citizens, project partners and students agree that it is necessary to go beyond first-level training programs in order to provide skills and competencies that will enable the field to grow into a coherent, self-organized professional body that can serve the interests of deaf and hearing people more efficiently than it does today.

In the discussion that follows, we first provide a background description of the course and the European educational context within which it has been launched, whereby the relationship between research and professional training has been

re-conceptualized. We then present the approach to research adopted within the EUMASLI program and explore the contribution we are seeking to make via this approach. Our intention here is to offer readers some critical reflections upon both the principles underpinning our approach and the practical application achieved within a program of this nature. In essence, we ask ourselves how best to place research within a professional development program at this level and in this socio-pedagogical context. We aim, then, to address research as a didactic challenge and as a learning experience for ourselves and for our students – how should we transmit an ethos of research and analysis that can be infused in the daily provision of interpreting services? – using EUMASLI as territory to explore this issue.

Developing a shared pedagogic approach to research

Using Bologna: The case for higher-level academic training of sign language interpreters

From modest beginnings as a voluntary support service provided by hearing people involved with the deaf community, sign language interpreting has seen rapid development in recent decades. While the founding of the influential U.S. organization, the Registry of Interpreters for the Deaf (RID; www.rid.org), goes back to 1964, sign language interpreting could still be described as "an emerging profession" towards the end of the twentieth century (Scott Gibson 1991). In many countries, creation of practitioners' organizations and establishment of training programs took place in the 1980s and 1990s (cf. Napier 2009). Tseng's 1992 model, describing four phases in the process of professionalization, from "market disorder" to "professional autonomy", though originally developed with reference to conference interpreting (cf. Pöchhacker 2004: 87), can be applied to community interpreting (Mikkelson 1996) as well as sign language interpreting (e.g., Grbic 1998). More generally, the professionalization of sign language interpreting implies the social recognition of a specific problem not addressed by historically competing occupations such as social workers or educators and the definition of a body of knowledge and competences exclusively accessible to members of the profession (Macdonald 1995; Pfadenhauer 2005).

Traditionally, the linguistic and cultural knowledge needed to provide effective communicative support to deaf people could only be accessed through processes of enculturation, by hearing children of deaf parents or others living and working in the vicinity of the deaf community. Globally, the move towards institutionalization and the provision of formal training programs for SLIs has been regarded as necessary and beneficial, although the downside of this "turning

point in the relationship of interpreters and the deaf community" (Cokely 2005) has not gone unnoticed. Maya de Wit's survey of sign language interpreting in Europe (de Wit 2008) demonstrates that serious efforts to provide training programs have been made in most of the 27 countries surveyed. While the 50 or so available interpreting programs vary greatly in status, duration and size, judging from recent developments in, for instance, Estonia, Latvia, or the Flemish part of Belgium, academic programs of no less than two, preferably three or four years' full-time study seem to be becoming the norm.

The small EUMASLI consortium is made up of institutions that have offered first-level academic training of SLIs for some time. From the outset, it was our shared conviction that first-level training programs will be severely limited in the extent to which they can focus on issues of theoretical interest and encourage research, since, of necessity, they must concentrate on the acquisition of language and interpreting skills, generally building upon little or no previous experience with sign language and communication with deaf people. Furthermore, progress in the small academic field of sign language interpreting will crucially depend on trans-national exchange and cooperation between institutions that, by and large, have had to rely on limited local resources and the ideas and competencies of a handful of deaf and hearing activists. We believe that academic reasoning and professional development will mutually benefit from closer interaction, leading to practice-sensitive research and research-sensitive practice. Finally, we would assert that implementation of higher-level academic training on a European level may serve to encourage other countries in Europe and, perhaps, beyond to establish or extend SLI education.

It was with these field-specific convictions in mind that we assessed the chances of the so-called Bologna process. The Bologna process is a political initiative aimed at creating a European Higher Education Area, started by European ministers responsible for higher education at a meeting in Bologna in 1999; it comprises 46 of the 50 European countries today, including all the member states of the European Union.[1] The Bologna process has had a profound effect on universities in all of the participating countries, leading to major changes and provoking reactions that range from enthusiasm and renewal to protest and scathing

1. As agreed in 1999, the European Higher Education Area was officially launched at a ministerial meeting in Vienna in March, 2010. The Vienna Bologna Policy Statement as well as many other accompanying documents can be found on the website of the Benelux Bologna Secretariat (http://www.ond.vlaanderen.be/hogeronderwijs/bologna/secretariat). The Council of Europe has published a useful overview of the Bologna Process ("Bologna for Pedestrians") with many relevant links (http://www.coe.int/T/DG4/HigherEducation/EHEA2010/BolognaPedestrians_EN.asp).

criticism (cf. Pechar 2007; Neave 2009; Scholz and Stein 2009; Kellermann, Boni and Meyer-Renschhausen 2009). In the present context, the central objective of the Bologna process – introducing a three-cycle system of bachelor, master, and doctorate degrees – is crucial. While this succession of degrees largely corresponds to the traditional organization of the tertiary education system in the UK, it represents a decisive innovation for German and Finnish universities. In Germany, bachelor and master degrees compete with and replace an earlier one-cycle "diploma" degree. In Finland, the Bologna process has led to the introduction of a work-oriented master's degree offered by polytechnic universities such as Humak. In this context, a proposal for a European master's degree program in Sign Language Interpreting seemed well-placed – while aimed at the development of the specific professional field, it corresponded to very general European initiatives of differentiating between a basic foundation degree level and more advanced studies that often presuppose substantive work experience.

EUMASLI: Outline of a European master in sign language interpreting

On the basis of the rationale indicated above, the three participating universities successfully applied for funding under the EU Socrates-Erasmus Program 2006 for a curriculum development project that has led to the implementation of the EUMASLI program. This section will briefly summarize the main structural and organizational features of the EUMASLI study program. EUMASLI is a part-time master program, organized around a series of international blockseminars that are complemented by local workshops and video conferences as well as self-study periods and distance learning. It takes 2.5 years to complete the program, resulting in 90 credit points according to the European Credit Transfer and Accumulation System (ECTS) or the equivalent of a full-time study workload of 1.5 years. Participants are expected at entry to have a first academic degree as well as at least three years of professional interpreting experience. Participants register at one of the partner universities but form an international student group whose cooperation across national boundaries is required and encouraged.

Partner universities share teaching responsibilities and take turns in hosting the international blockseminars (of one- or two-week duration), that are at the heart of each semester. Teaching modules generally have a size of five ECTS or 150 student working hours and conform to a pattern, where an initial self-study period is followed by contact time in the international blockseminar, leading to subsequent individual or group work and culminating in a concluding event, which will often involve media-based interaction through video or online conferences. A multilingual approach is envisaged. While English is the main language

of teaching, participants are expected to acquire minimal skills in all of the participating spoken languages, including Finnish and German, and each of the national sign languages involved, i.e., Finnish Sign Language (FinSL), British Sign Language (BSL), and German Sign Language (DGS). The final semester of the program is devoted to individual research and the production of the master thesis. Thesis work is supervised by mentors from at least two countries and students are encouraged to make the results of their work publicly accessible.

Modules taught in the program form three content strands, focussing alternately on "international skills", "developing the profession", and "doing research". The "international skills" strand affords opportunities to apply and strengthen linguistic and translation skills. This strand has language awareness as a dominant theme and affords a special place to International Sign. The "developing the profession" strand is concerned with individual, social, and political aspects of working as a professional interpreting practitioner and provides access to interpreting and translation studies discourses. The third major strand of the program prepares students for "doing research" by way of critical reflection upon the methods, results and applicability of earlier research work in the field. We now move into more detailed description of these elements, with particular reference to their research implications.

Operationalising a research ethos: Five key issues

Introducing research by practitioners

In bringing EUMASLI into being, we have sought to forge a distinctive research ethos which has evolved further through the dynamic engagement of the student body. It is no accident that our consortium of academic partners contains two institutions entitled "University of Applied Sciences" and one (Heriot-Watt) which describes itself as being recognized for its "applied research capability". From its very core, EUMASLI derives from a cast of mind that takes inspiration from ensuring relevance to the non-academic world of professional practice as well as from theory-driven scholarship. Our staff team is equally balanced in perspective, enriched by the different forms of knowledge brought into play by our various experiences as practitioners and scholars (with diverse disciplinary backgrounds in the humanities and social sciences). No one nationality dominates the coalition: this is not a case where an "advanced" model is being transferred from one country to the other two. For us, it goes without saying that we include deaf and hearing colleagues and strive to maintain an openness to input from all contributors.

At the inception event which brought together for the very first time all EUMASLI staff with the students they had recruited (via parallel processes using uniform criteria) into the program, we also acknowledged that this course would, without doubt, be a new experience for us all. For one thing, the event took place – as elements of the course continue to do – in virtual space, via a three-country videoconference with three groups of staff and students clustered before the cameras in Magdeburg, Helsinki, and Edinburgh. More significantly, though, it was recognized that, at this level of study, students were firmly expected to bring their many years of knowledge to the analytical table just as their teachers would do. This could not, we reinforced, be a "top-down" learning experience: our intention was to pose questions and identify areas of challenge and inquiry, with the floor thereafter open to all. The course was new; the advanced professional focus was new; the trans-national structure was new; the internationally-blended learning environment was new; and we aimed collectively to capitalize upon the potential inherent in all of these features as enhancements to the program of study.

The EUMASLI ethos, then, centers upon the close inter-dependence of research and practice. We have, as colleagues, shared and built our understandings of what this means for over a decade. Now, our mission is to transmit this ethos to our students and further construct it with them. We anticipate that they will adopt and adapt this approach in their studies and, at the same time, in their practices of interpreting service delivery and management. As practitioners versed in research techniques, graduates will be well placed to specialize as analysts themselves. Historically (cf. Grbic 2007) very many sign language interpreting analysts – in Europe, anyway – have "grown into" research without being trained in it: EUMASLI can therefore help to promote the contribution of expert researchers whose insights are grounded equally in scholarship and in experience drawn from the professional field.

The structure of the program is such that participants approach the undertaking of research only once they have an extensive underpinning in relevant contextual issues. In the initial stages, this focuses upon language skills and linguistic awareness, along with an understanding of the cultural, institutional, historical, and political contexts within which sign language interpreting professions have arisen in Europe. Building upon these foundations, students consider and connect insights deriving from scholarship with those emerging from the social and occupational environments, with a view in particular to identifying key theoretical implications and drivers of change in the field. Throughout, we encourage a reflective cast of mind: "How am *I* situated within these points of reference?", "Is this what I see in *my* working life?", and "How may these ideas affect *my* lived reality?" should be ever-present questions. We wish to nurture an unwavering sense of dialogue

and mutual engagement between academia, the profession, the wider community and public authorities (including national and European parliamentary bodies).

The EUMASLI program extends across four taught semesters (i.e., two years) plus the final period in which students will produce their Master thesis. The thesis must be founded in independent, empirical analysis of a topic relating to the performance of sign language interpreting or to the development of the interpreting profession. A good thesis is likely to explore a question which the field as a whole would find timely and topical, and should produce outcomes that can be reported to the benefit of a wider audience, but at Master level the effective *application* of available theoretical concepts is more typical than the *generation* of original theoretical insights, and serves the relevant pedagogical purposes quite adequately.

The student effort-hours involved in the semester of designated pre-thesis research preparation are arranged in four phases. These are guided reading, whole-class teaching and learning of key skills and processes, independent research planning, and finally reporting. Our decision has been to concentrate – in order to make the most of our expertise, students' backgrounds, and the research topics we expect to see highlighted – upon what Colin Robson (2002) calls "real world enquiry" i.e., studies that may not typically be experimental in nature or primarily carried out in purpose-built laboratories, but that seek "to say something sensible about a complex, relatively poorly controlled and generally 'messy' situation" (Robson 2002: 3). The field of sign language interpreting is, to our way of thinking, at present undoubtedly "messy" and addressing such issues will entail engaging with the reality of the situation and taking it at face value. The approach we pursue as teachers will, in Robson's terms again, be "deliberately promiscuous … in the attempt to give enquirers a range of options appropriate to the research questions they are asking" (ibid.: 9).

While the Master thesis does require the production of an *independent* text, we will be at pains, here as throughout the program, to promote *collaborative* approaches to the overall research experience. Collaboration in this context may come in many forms: peer-to-peer critique of methodological sketches; introductions to potential research interviewees; labour-exchange in the form of mutual translation of data from an unfamiliar sign language; invited review of draft output; and so forth. We have seen over and over within our own careers – and find reinforced in sources such as Sara Delamont and Paul Atkinson's guide *Successful Research Careers* (2004) – that the "good karma" and often-unanticipated insights that may be derived from such sharing are well worth promoting. In the EUMASLI context, we are particularly keen to encourage students to consider how they may appropriately derive benefit from interaction across nations and across roles – service designers in Finland engaging productively with policy

specialists in Germany, historians in the UK with specialist conference practitioners in the Netherlands: many such combinations are imaginable, and each will inevitably throw up unpredictable, research-enhancing revelations.

Valuing empowerment in sign language interpreting research

As we have described in this paper, EUMASLI is built upon the range of interests and professional experiences of its extended teaching team, upon the richness of the contributions brought by our student body, and upon our collective awareness of the wider perspectives of academic "neighbours", policy-setting authorities and the general public (whose members associate with various communities that "consume" interpreting services). As a body of work, the literature that underpins understanding of sign language interpreting draws in a similar way upon insights from a wide spectrum of research and analysis. This may range from the highly scientific (e.g., magnetic resonance imaging which explores the patterns in signers' neurological activity) to the highly polemical (e.g., readers' letters in the periodicals of deaf associations). In such a context, identifying common issues of research process and principle may be a distinct challenge. Every researcher has areas within the underpinning knowledge base where they feel most "at home" and where their knowledge and experience is most first-hand and direct. Nevertheless, common threads may indeed be discerned and illuminated to mutual advantage. Here, we choose to highlight two such threads: firstly, that all research in our field relates at some level to social life and should therefore be sensitive to human interests; and secondly, that in order to act upon an awareness of such sensitivities, insights produced by processes that academia historically values must be brought into contact with other kinds of insights. Both principles are highlighted within our program.

The sociology of science now tells us persuasively that sciences involving human "subjects" cannot – despite earlier eras' protestations of objectivity – be strictly neutral enquiries into the individual or collective behaviour of human beings. Researchers cannot help occupying particular social locations, adopting identifiable "stances": these are significant elements in defining both the texture of research processes and the nature of the insights arising from research. As Deborah Cameron and colleagues have written (1992: 5):

> We inevitably bring our biographies and our subjectivities to every stage of the research process, and this influences the questions we ask and the ways in which we try to find answers… Similarly, research subjects themselves are active and reflexive beings who have insights into their situations and experiences. They cannot be observed as if they were asteroids, inanimate lumps of matter: they have to be interacted with.

This comment encapsulates a key insight underpinning the ethos we are seeking to communicate and to advance. Research about interpreting is "co-produced" by a potentially broad group of stakeholders, whose contributions may be orchestrated, edited and channelled by a designated "researcher", but whose insights and inputs all constitute salient parts of the outcome achieved. All research participants must interact *as people* throughout the research process, and how they do this will affect what is learned.

In the terms of Cameron et al. (1992), EUMASLI construes research as a matter conducted "on, for and with" all stakeholders, including interpreters. All stakeholders may provide the "raw material" from which more precise insights may be distilled, so we work "on" the basis of the evidence made available by one another. All stakeholders are liable to have (more or less explicit) intentions about the purposes to which research may be put – in other words, they know what it is "for", from their point of view. And, as noted above, all may generate key ideas around which new collaborative developments may be constructed, and so each works "with" the others to build knowledge. The programmatic account produced by Cameron and colleagues nearly 20 years ago seems to us to stand research-active interpreting students in extremely good stead. Cameron et al. (1992) give three concise precepts as a springboard: (a) persons are not objects and should not be treated as objects; (b) subjects have their own agendas and research should try to address them; and (c) if knowledge is worth having, it is worth sharing. Turner and Harrington (2000) consider each of the precepts in turn, relating it to interpreting research through the lens of particular studies. Their summary of key points (2000: 263), which we aim to see informing EUMASLI participants' research wherever possible, suggests that researchers should:

1. Work with other stakeholders to select and set up projects;
2. Consider the advantages of research teams – but take seriously the danger of tokenism;
3. Maintain dialogue throughout with all stakeholders – i.e., before, while and after the study takes place;
4. Seek explicit permission from participants, and keep open (for them) the option of opting out;
5. Minimize disruption to people's real lives;
6. Maintain absolute respect for confidentiality;
7. Build the outcomes from research into training with all stakeholders;
8. Disseminate as widely as possible to all stakeholder groups; and
9. Where appropriate, be willing to advocate.

Of the three "programmatic precepts", one – *if knowledge is worth having, it is worth sharing* – directly leads to the final dénouement of the EUMASLI experience.

Having produced Master theses, our participants are committed, as an integral part of the course, to presenting these original contributions to a spectrum of stakeholders (e.g., professional consumers, personal consumers, representatives of user-groups and national bodies including regulatory bodies and statutory authorities) whom we will bring together for a concluding conference. It is particularly important to remember the multiplicity of other stakeholder groups who might benefit from learning opportunities that draw upon research outcomes to support and disseminate current thinking about good practice.

Sign language interpreting practitioners as theorists

The EUMASLI program was built on the idea of providing advanced higher education to practicing SLIs. Naturally, a key reason behind this approach was the limited training opportunities available to SLIs in Europe. We turn now to examining the development of EUMASLI from three different perspectives: labor-market relevance, development of the professional field, and the concept of learning. These perspectives become particularly important when evaluating the higher education offered to practicing professionals.

The term *labor-market relevance* contrasts with previous descriptions of programs being *driven* by the needs of the labor-market, which has been interpreted to imply that the objective of education was to serve neo-liberal demands and to respond solely to the changing needs of the economy. Labor-market relevance has been interpreted as an attempt to provide students with education that will offer more lasting benefits, enabling students to secure employment and continue learning regardless of the changing needs of the labor-market (Ammattikorkeakoulutuksen työelämälähtöisyyden kehittäminen 2009). The emphasis on labor-market relevance is rooted in the belief that as a result of social change, the labor-market now demands new kinds of professionals with characteristics associated with both skilled professionals and traditional University graduates. This new breed of professionals should have strong expertise in a specific area, as well as general knowledge, communication and language skills, understanding of adjacent professions, and a capacity for continuous learning and the management of their professional environment (Salminen 2003).

The demand for labor-market orientation is visible in the increasing quality criteria set for the work and education of SLIs in recent years. The level of education has risen among the customers of SLIs, the clientele has become more heterogeneous, new technological solutions require new skills, and the SLI service system has been developed in several countries. Solid expertise is nevertheless always based on specific cognitive competencies, which can only be acquired through extensive learning, broad experience, understanding of the subject matter

and of automated routines, and metacognitive control and regulation (Ruohotie 2003: 64). The listed qualities are difficult to achieve without higher education. Indeed, these qualities are strongly connected to the idea of university-trained SLIs who are able *to develop their professional field* – something that requires the critical evaluation of existing practices and the implementation of changes deemed necessary. These tasks in turn require thinking skills, and the thinking skills taught at universities are connected to critical thinking, problem solving and creative thinking (Ruohotie 2003: 65). As SLIs develop in the above skills, three dimensions of the professional field will develop through the EUMASLI project: first, improvement in the language and interpreting skills of individual SLIs; second, understanding that the profession can and should be developed with respect to the service system; and third, the development of work practices through practice-oriented Master thesis projects.

The third key aspect in the discussion on MA degrees offered to practicing professionals is the *concept of learning*. The linking of work and learning can be justified based on most dominant theories of learning and views on the development of expertise. Due to the rapid restructuring of the labor-market, thorough and broad understanding of work processes has become a key requirement for professionals. This refers to the ability to understand one's own work processes and those of the entire organization, as well as the relationships between the two. Process know-how mostly develops through work, but it cannot be considered practical knowledge alone, because it also essentially involves theoretical understanding. Indeed, work process know-how is created by integrating theory and practice into work-related problem solving (Tynjälä et al. 2004: 7–8). Of course, experienced SLIs regularly analyze and reflect on their work, but learning by doing is not enough alone for balanced development of expertise. Without a theoretical foundation, learning on the job is unsystematic and arbitrary, and can potentially lead to unwanted learning (for example, inappropriate practices). Therefore, a key issue in linking work and education is the manner in which work and learning are connected to one another (ibid.).

Each of the above three issues is woven throughout the EUMASLI program. And crucially, with respect to the development of our students as researchers, we bring these aspects overtly to the surface in promoting a reflective approach to research within the final, thesis-preparation phase of the program. We do not claim that all of the students will ever take salaried positions as researchers, but the labor-market in which they already operate requires that they use the thinking skills fostered by engagement with research processes. Furthermore, it is predictable that ongoing changes in that market will demand continuous re-thinking of interpreting service systems and delivery practices. For us, the key to improved higher level or "meta-practical" functioning in the profession will be recognition

of the fundamentally inter-dependent nature of interpreting practice and underpinning theoretical frameworks; there is, as the adage has it, "nothing so practical as a good theory". The EUMASLI program therefore aims to promote both the front-end skills and the underlying cast of mind that are associated with research, as a way of testing theories and formulating new ideas about the design and implementation of high-quality, profession-leading interpreting services.

Promoting constructive contributions to interpreting and translation studies discourses

As professionals in the field, SLIs are necessarily part of a wider discourse community (Swales 1990: 26) of translation and interpreting and thereby have the right as well as the duty to actively participate in that community. One aim of EUMASLI is to encourage the course participants' active contribution to the wider field and provide them with necessary and useful tools to take part in this discourse in an advanced, meaningful and constructive manner. Although this ethos is promoted throughout the course, one particular module provides the students with the necessary theoretical background and conceptual foundations, drawing on knowledge developed within the more specific field of sign language interpreting (and translation) studies, as well as the wider "mainstream" discipline that investigates translational issues and practices with regard to spoken and written languages. A theoretical underpinning of this kind, together with the students' extensive individual experiences, provides the necessary background for them to make a significant contribution to translation and interpreting as well as to wider public discourses.

Although not always obvious to translational practitioners, a theoretical underpinning is, as argued above, crucial in order to promote and enhance the discipline at various levels (cf. Chesterman and Wagner 2002). First of all, as noted above, theoretical knowledge supports practitioners in their immediate professional environment, enhancing their abilities to make informed decisions, contextualise their decisions and reflect on their decisions, something which is necessary in order to move beyond the self-restricting, stimulus-response mode of quasi-professionalism that Turner (2007a) calls "defensive interpreting". Moreover, with a conscious understanding of discourses around translation and interpreting studies, practitioners are encouraged to communicate effectively with their colleagues, clients and other stakeholders, to promote awareness of translational issues and thereby encourage an empowering co-operation with the primary participants (cf. Turner 2007b) to overcome translational challenges.

Secondly, adhering to what we call a common research ethos involves the promotion of the profession amongst the wider public, where translators and translational issues are still largely "invisible" (Venuti 1995). According to Venuti, this

means that translators' works are often disrespected both economically and communicatively. This might be different to some extent in sign language contexts where interpreters are necessarily "visible" due to the visual-gestural modality of the languages they work with, and because of the central role they play within deaf communities where translational activities are inevitable through the regularity of contact between deaf people and hearing individuals in the wider society. However, we could argue that an SLI's work still remains invisible to a large extent in the sense that the general public's understanding of what is involved in the task of signed language interpreting is often idealized, flawed, or at least simplified. In general, the "conduit model" (cf. Pöchhacker 2004: 147–149) still largely prevails, expecting the interpreter to "just" reproduce the "source message" in a target language with the aim of covering up translational processes and problems. In order to rectify the situation, we regard it as the duty of the members of the discourse community to promote awareness of translational practices amongst the wider public.

Finally, one of the aims of EUMASLI is to equip students with the necessary theoretical knowledge and analytical tools to be able to become *bona fide* active researchers in their own right, who will adhere to proper academic standards in terms of rigour, theoretical foundation, originality and presentation. Although we have witnessed an increase of literature on sign language interpreting during recent decades (Grbic 2007) and the community is becoming more mature (Turner 2007c), it seems fair to say that we are only at the beginning of the foundation of a solid research community. Considering the complexities of issues involved in the practice of sign language interpreting, the research body to draw upon is still small and the community is only starting to find its place paradigmatically, theoretically, and methodologically.

While there has been some fruitful exchange between sign language interpreting research and its parent discipline interpreting studies, particularly in the area of community interpreting, this has not yet been the case within the wider field of translation studies where signed languages are largely overlooked. There has, however, been a recent increasing acknowledgement that research on translational practices involving signed languages may productively benefit from the knowledge that developed in the mainstream discipline. The relevance of translation studies has particularly been recognized in recent studies that concentrate on what might be called sign language "translation" rather than interpreting practices, i.e., those that involve written and recorded source and/or target texts. However, considering the breadth of translation theory, theoretical, conceptual, and methodological insights of the field have relevance for sign language translational practices (Wurm 2010).

At the same time, the benefit of an exchange between the wider field of translation studies and the more specific sign language interpreting studies field is

reciprocal. Acknowledging that the field is predominantly based on investigations of dominant translation practices involving major written Western languages, there has been a recent call to widen the discipline by looking outside the canonical center and actively encouraging contributions from areas of the world which are not predominantly Western and address less central practices (Hermans 2006; Tymoczko 2006, 2007). Sign language interpreting researchers should therefore regard it as an obligation to make an active contribution to the wider field.

Pedagogically, we approach the integration of wider theoretical aspects in two ways. Firstly, we aim to create an awareness of translational practices, i.e., the activities, approaches, attitudes and conceptualisations related to translation, within and outside the area of sign language interpreting. A second objective is to promote students' ability to contribute to scholarship by adhering to academic standards. This entails demonstrating the ability critically to reflect on translational practices (activities, approaches, attitudes and conceptualisations) and to substantiate one's own perspectives not only with reference to personal experience but also through an analytical framework. This encourages not only a reflection on a number of possible perspectives, but also a more objective argument which is crucial in terms of creating meaningful dialogue between different stakeholders.

Student feedback indicates that wider theoretical awareness and underpinning is now regarded as relevant to the widening of individual horizons as well as the development of the profession.

Performance and profession as twin-tracks on the way to a shared research ethos

In his 2004 map of the interpreting studies landscape, Pöchhacker identifies "process", "product and performance", "practice and profession", and "pedagogy" as the major areas that characterize the discipline, each comprising a multiplicity of more specific topics and research endeavours. Clearly, no single enterprise with a shared interpreting research ethos can hope to rise to the challenge of addressing all these areas. While we may feel that each and every aspect of sign language interpreting deserves attention and scrutiny, a collective learning experience such as EUMASLI will have to relate to and build upon previous experiences and available competencies. Early on in this project, we identified "performance and profession" as the twin-track approach that would inform the program, and we might have added the term "product" to the former term and "practice" to the latter to tie in with Pöchhacker's subdivision of the field.

Pedagogy is what a study program is all about, and while we know that some of our participants are involved in the continuing education of practicing interpreters and will continue to be so, meta-level training in the sense of

"training the trainers" is not a systematic concern of the EUMASLI program. To some extent, this reflects a feeling of direct involvement on the part of the teachers in this program: we want to share our curiosity and be part of the process of securing knowledge about sign language interpreting as an area of research. EUMASLI provides an open-ended process of finding didactic ways for doing so, but its focus is on the professional activity itself, and we cannot pretend to have reached a meta-level from which to reflect the didactics of didactics.

For a different reason, the shared interpreting research ethos that is taking shape within EUMASLI may turn out to have a blind spot in the area that Pöchhacker (ibid.) terms "process". Clearly, application of cognitive information-processing skills is a central part of any interpreting activity, and research that investigates and models processing operations – particularly with reference to spoken and signed conference interpreting in the simultaneous mode – has shaped the discipline and inspired many training approaches (see such influential work as Moser 1978, Moser-Mercer 1997/2002; Gile 1985/1997, 2002; Cokely 1992; cf. Englund Dimitrova and Hyltenstam 2000). If the question of "what is going on in the head of the interpreter" does not figure prominently in our project, this is not out of neglect or lack of concern, but it simply reflects the dispositions of our team that do not allow us to deal very confidently with psychological approaches and cognitive questions. However, it would be in the spirit of the collective effort described here, if students with an appropriate background chose to tackle a question with a processing dimension, thus expanding their teachers' field of vision.

Even discounting two of the four areas outlined by Pöchhacker (2004), the remaining range of issues and questions that research might focus on is daunting. Instead of trying to catalogue each and every possible aspect subsumed under these headings, we have used the ideas of "performance" (including "product") and "profession" (including "practice"), as the centres of gravity around which contents are organized that reflect the specific personal and institutional strengths of the EUMASLI consortium. Students are asked to reflect upon these two major areas of their working lives to arrive at a personal decision as to which track they want to pursue, narrowing down their focus of research as appropriate.

The realization of the performance aspect constituted a major puzzle on the way to a shared research framework. Clearly, in order to reflect and transcend familiar interpreting practices, providing theoretical input of the kind described in the preceding section of this paper is important, but not sufficient. Rather, these interpreting practices themselves have to be made the object of inspection and inquiry, although dealing with language-specific issues that arise in interpreting between, let us say, spoken Finnish and Finnish Sign Language (FinSL) or between German Sign Language (DGS) and spoken English is beyond the

capabilities of the program. While, in principle, it is possible to separate linguistic from translational issues in the training of interpreters, providing supporting experts for each participating signed language went beyond the possibilities of our team. In the end, our solution to the puzzle of how to face performance issues in a direct, tangible fashion while at the same time abstracting away from more specific linguistic or social concerns was inspired by a fascination with the world-wide communication of signing deaf people: Could International Sign (IS) not provide the kind of trans-national meeting ground for applying translational skills that we were looking for?

While we are well aware of concerns and reservations related to the status and use of the assembly of communicative forms conveniently summarized under the IS label, descriptive accounts such as Supalla and Webb (1995), Moody (2002), McKee and Napier (2002) and Rosenstock (2004) have convinced us that this idea is worth pursuing. Importantly, we are not trying to devise a training program for IS interpreters (though some participants may go on to develop and apply IS competencies in their professional practice), nor are we questioning the rightful place of national sign languages as the preferred and trusted medium of communication at national and international levels (including a possible role of, for instance ASL or BSL as a *lingua franca* for the scientific deaf community as advocated in the so-called "Amsterdam Manifesto"; cf. Rathmann et al. 2000). Rather, IS is seen here as a tool for provoking reflection and enabling meaningful discussion of translational practices across linguistic boundaries. Its very limitations may serve to draw attention to more general issues of language transfer and its impact on deaf or hearing receivers.

With this general idea in mind, IS is afforded a prominent place in the practice strand of the program. On the basis of a comparative approach to the three national sign languages of the partner countries, vocabulary and grammatical mechanisms commonly used in IS communication are first introduced, then applied in translation exercises that focus on questions of equivalence, and finally put to use in realistic transnational interpreting contexts. This practical two-year learning process is accompanied by a process of reflection that tries to tease out and lay open assumptions about aims and practices that participants bring to the program. Thus, IS is used as an obstacle and a challenge to the application of ingrained modes of interpreting performance. IS may not offer any straightforward way of rendering an English text fully accessible to a deaf audience, aspects of an IS production may appear too unspecific or vague as to allow unambiguous interpretation into English, or considerable rephrasing may be necessary to allow for appropriate language transfer. Collective inquiry into questions such as these is used here to highlight performance issues and create a shared research agenda.

Finally, for a shared approach to the question of practice and profession, each participant is constructively challenged to refine his or her position in respect to the triangle of individual, social, and political concerns, each of which is the focus of a separate study module. At an individual level, where professional self-management and well-being are central, nationally conditioned personal practices are investigated with a view to establishing something approaching "best practice". Crucially, we understand "best practice" to be a relativistic, contingent notion: what counts as "best" will depend upon many features of a specific interpreting context. We take it as a fundamental truism that "best practice" cannot be prespecified but that the features which will define it at any particular interpreting "moment" can be identified and formulated as a theory of interpreting – and here again, we avow that there is nothing more practical than a good theory.

Socially, changing relations with various customer groups – including but not limited to the deaf community – raise ethical questions, cast doubt on established role definitions and demand consideration of the challenges posed by technological innovations, new target groups, and altered settings (Janzen 2005). In a political dimension, strategic questions that concern the establishment and maintenance of professional organisations and the implementation of professional policies need to be considered. The EUMASLI program draws on the expertise of its multinational teaching staff to shape and develop this triangular relationship that takes centre stage in any research approach to the profession aspect of sign language translational practices.

In sum, we have chosen to focus on two of the four central disciplinary areas outlined by Pöchhacker (2004). In both these areas, performance and profession, there is relevant theoretical input to be imparted. However, the creation of a shared research ethos crucially depends on accessing, laying open, reflecting and, if at all possible, transcending the relevant professional experiences, competencies and assumptions each participant brings to the program. In the performance strand, this is done by using IS as a common denominator for implementing and analysing translational practices. In the profession strand, exploration of individual, social and profession-specific political dimensions can draw directly on the experience of the participants. Both areas combine to create an array of concerns and questions that students can turn to in the spirit of a shared research ethos.

Taking stock: So far, so fascinating

In this paper, we have provided a description and explanation of a collaborative, international, and progressive approach to research within an advanced SLI education program. Introducing research as an avenue to and a target of learning,

we have discussed key didactic challenges faced as we seek to transmit an ethos of research and analysis that can be infused in the everyday provision of interpreting services. In the field of sign language interpreting studies, the combined practitioner/researcher is not such a rare creature: many of the finest scholars over the decades have woven the two strands together. EUMASLI simply says that this should not be an occasional "happy accident" but something we overtly encourage, facilitate and seek to instill in our course participants. Research and scholarship gather and generate knowledge and ideas upon which good practice can be built; the educational curriculum presents and interprets this material; students are guided in the practical application of the theory; as practitioners, they undertake reflection-on-action which enriches their ongoing practice; and in producing extended written analyses, they make contributions to scholarship which close (or re-commence) the cycle by offering new insights to the wider field.

The EUMASLI project has served to transform a small group of loosely-connected academics in different countries into a coherent, purpose-oriented, if still small international network that can be built upon in the anticipated expansion of shared academic work in the area of sign language interpreting in Europe. As we have learned in the process, national characteristics and idiosyncrasies (e.g., diverse terms of admission, grading systems, documentation of student achievements, methods of quality management) are challenging to overcome in some areas. Nevertheless, a number of promising outcomes are evident. A sense of collective enrichment is being built which engages staff and student participation on mutually respectful and increasingly equal terms. A shared awareness of EUMASLI as a uniquely invigorating intellectual and professional crucible is growing as the program matures.

It will be known to all readers of the present work that interpreting studies remains a relatively small field, with sign language interpreting an even more concentrated pool. In such a situation, there is a very strong case for promoting extended, international networking among staff and students exploring the field, in order to reduce isolation, support morale and disseminate new thinking about good practice and theoretical developments. Within Europe, the Bologna framework acts as a promise of movement towards greater integration and more intensive interaction, our initial, tentative steps towards recruiting for a multi-centre professional development program led to clear indications of a genuine hunger amongst advanced practitioners across Europe and beyond for research-friendly, higher-level SLI training, despite the widespread inability of formal career structures readily to accommodate this new award.

There is no doubt that going beyond "what every practitioner already knows" is (and, in a rapidly-changing working environment, will continue to be) a challenge to educators. For us, this challenge injects new vigour into our intellectual

bloodstream. We find ourselves asking what a theoretically-informed, research-oriented professional field of sign language interpreting would look like. Firstly, the systematic habit of reflection, backed by critical thinking skills and a research-informed knowledge base, would take root as the key to inhibiting the practitioner's temptation to switch to auto-pilot and cruise through the interlingual shift without due care and attention. Secondly, it would be a field populated by those with a well-developed ability to shape professional life (in terms of such expressions as codes of ethics and guidelines for working conditions) in order to facilitate the widespread achievement of best practice; an ability to guide other practitioners to more advanced service delivery, consciously using their confident awareness of "what works"; and an ability to persuade public authorities and service-users to adopt and promote progressive approaches of their own in co-producing desirable communicative outcomes. Thirdly, it would be a research-literate profession whose members would be empowered to contribute in various capacities to research and thereby towards the development of the field's knowledge-base; would take information about sign language interpreting and its revelations to the wider field, developing academic awareness; and would formulate new theoretical contributions, derived from sign language research contexts, to extend interpreting studies as a whole. Here, then, can be seen the pillars upon which we understand the research ethos of EUMASLI to be formulated: performance, profession, and progress through systematic, theory-driven critique and renewal.

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Profession in pentimento

A narrative inquiry into interpreting in video settings

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Video Relay Service (VRS) "interpreting" in the United States is today a billion-dollar industry, regulated by the Federal Communications Commission (FCC). In this chapter, the role of the interpreter in the VRS industry is explored through a form of narrative inquiry. Deaf people around the world have suffered pervasive and negative consequences as a result of the for-profit model of VRS in the United States. A comparison between community and VRS work is offered and the issue of working conditions in VRS is explored. The recommendation is made that interpreters distinguish between interpreting and working as a communication assistant (CA), the title given the work by the FCC and freely adopted by industry.

"…in Huxley's vision, no Big Brother is required
to deprive people of their autonomy, maturity and history.
As he saw it, people will come to love their oppression,
to adore the technologies that undo their capacities to think."
Amusing Ourselves to Death (Neil Postman 1985: vii)

Prologue

The tone sounds, I click my mouse, and a face appears on the monitor. I offer my mudra and place the call. In this way have I ordered pizza in Anchorage and kung pao in Key West, made medical appointments and broken hearts, shared good news and bad from Peabody to the Punjab. I am a communication assistant (CA) for a video relay service (VRS) company in the United States. "Communication Assistant" is the term of art used to describe VRS work by the Federal Communications Commission (FCC) and used freely by industry in describing work done in the VRS environment.

I have worked as a sign language interpreter since 1973, and as a video interpreter/communication assistant since 2003. The distinction made here between interpreter and CA is an important one. VRS is by far the most complex venue I have ever worked in. In VRS the inexorably shifting variables of personality, need, language, and setting combine and re-combine continually, offering a kaleidoscopic interpreting encounter. This essay explores a conclusion I have formed about VRS work in the United States after my experience of seven years and approximately 50,000 calls:

- VRS work does not qualify as interpreting as defined by *interpreters collectively since 1964.*

The evidence I offer in support of this argument is drawn from an eclectic assortment of sources: emails, excerpts from a work journal I have kept since I began VRS work, ex parte filings, government publications, etc. This documentation and reportage follows the trajectory of narrative inquiry, here defined by Connelly and Clandinin:

> Narrative inquiry in the social sciences is a form of empirical narrative in which empirical data is central to the work. The inevitable interpretation that occurs, something which is embedded even in the data collection process, does not make narrative into fiction even though the language of narrative inquiry is heavily laced with terms derived from literary criticism of fiction. A number of different methods of data collection are possible as the researcher and practitioner work together in a collaborative relationship. Data can be in the form of field notes of the shared experience, journal records, interview transcripts, others' observations, story telling, letter writing, autobiographical writing, documents such as class plans and newsletters, and writing such as rules, principles, pictures, metaphors, and personal philosophies. (Connelly and Clandinin 1990: 5)

Disclaimer

In presenting this, I warrant that all call content discussed herein is the fictional creation of this author. Wherever treatment of dialogue is offered, attribution to its source is made in a footnote.

I am constrained by my lack of knowledge and understanding of company policies where I work and in the industry in general. Many policies that have to do with the working conditions for CAs are considered private and proprietary. I have lost count of the number of times I have asked management for a rationale for some new performance target. Their answer never varies: “Because we say so.”

The lack of validity in the company's measurement of our work is breathtaking. Their disdain for discussing fundamental aspects of their metrics highlights a major change in this new model of interpreting provision. Heretofore we have thought it important that the standards for sign language interpreting be known publicly. Heretofore if standards were thought to be "proprietary", they were considered the "property" of the local community, not the dictates of a distant and faceless autocracy.

I regret that I do not know enough about the working conditions in other VRS companies to include here treatment of their qualities. The number of companies offering VRS service in the United States fluctuates. I use the term "industry" here to describe the policies in place in *my* working environment. The unfortunate consequence of this is painting all companies with the same broad brush even though company policies and practices may well vary considerably. Since 2003 I have been employed by two of the larger companies engaged in VRS. I say with great confidence that the conditions in which I work are representative of the majority of the industry.[1]

A comparison of working conditions in VRS both between companies and between countries would make for a wonderful and very useful study. Standards for working conditions might finally help industry focus on the significant risk to interpreters from things like musculoskeletal disorders, cognitive overload, fatigue, and eye strain. This research seeks to explore the role of the professional interpreter in VRS work. To date, this role has been carefully circumscribed by government fiat and industry bottom-line. In this research I hope to address longstanding concerns on the part of interpreters on how best to conduct this new type of work.

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1. The National Exchange Carrier's Association, the entity through which the FCC authorized reimbursement to VRS providers at this time, filed an Annual Submission of TRS Payment and Revenue Requirements. The information about the number of minutes provided is taken from page 37 of the report filed May 1, 2009, available at https://www.neca.org/cms400min/NECA_Templates/TRS_Landing_Page.aspx.

Given that companies do not report publicly on these data, I have approximated the percentages of the total number of minutes sold by the companies I worked for using information taken from *Deception and Distrust: The Federal Communications Commission Under Chairman Kevin J. Martin*, a majority staff report submitted by the FCC to the US House of Representatives Committee on Energy and Commerce, December, 2008, and available at http://energycommerce.house.gov/images/stories/Documents/PDF/Newsroom/fcc%20majority%20staff%20report%20081209.pdf.

> **Journal Entry 3/17/06 – *Epiphany***
> Today I took a call from Jesus. His name appeared on the
> screen an instant before He did. Immediately I thought of
> Jesus Alou and baseball and how when I was 11 years old
> Jesus Alou's name provided me valuable learning on
> cultural norms in naming.
> The caller was a fine-looking young man. Long hair, bit of a beard.
> "Call my father," he intoned.
> As I was about to experience glory, he added, "Spanish, please," offering a critical insight into biblical exegesis as I transfer him to a trilingual interpreter.

Once upon a time

In the early days, video relay interpreting was simply thrilling. Seeing deaf children in regular contact with and participating fully in their families and communities was an early high water mark. Another high point has been witnessing miraculous work done by interpreters, who day in and day out create cohesive and coherent texts out of thin air. Often deprived of knowledge about who is who and what is wanted in a call, interpreters must constantly devise new schema for making sense out of decontextualized information.

I am proud to have been a part of this noble experiment to help the established technology we call interpreting combine with the innovative technology of video to make our society more accessible. The fact of twin technologies at work in VRS is often overlooked. And certainly, in evaluating interpreting and video technology, interpreting is the more important of the two. We know this because the VRS industry gives away their technology so that they can sell interpreting. Interpreters can do without VRS. VRS cannot do without interpreters.

First introduced in 2002, the business of national VRS service in the United States soon skyrocketed. Statistics provided by the National Exchange Carriers Association (NECA) show a growth rate of over 3,100% in six years, from 2.8 million minutes billed in 2003 to over 90 million minutes billed in 2009[2]. This growth was not without complication. As the business mushroomed it soon exhausted the supply of qualified interpreters. At the same time, the cumulative experience of millions of calls suggested that "interpreting" was neither expected nor needed from CAs in many situations.

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2. The National Exchange Carrier Association, Inc.'s Annual Submission of TRS Payment and Revenue Requirements, for July 2009 – June 2010, available at https://www.neca.org/cms400min/NECA_Templates/TRS_Landing_Page.aspx.

In VRS as practiced in the United States, the Federal Communications Commission (FCC) grants private companies wide latitude in determining the requisite qualifications of CAs. The early prerequisites of national certification and five years of interpreting experience have given way. A review of VRS job announcements between 2005 and 2010 in editions *Views*, the trade publication for sign language interpreters in the United States, confirms that certification and lengthy experience is no longer considered necessary. It is a source of major concern that private for-profit companies are empowered to redefine basic aspects of interpreting and working as an interpreter. In my experience VRS work is the most complex "interpreting" environment yet devised. That it is rapidly becoming entry-level work in the field of ASL-English interpretation is troubling.

Like many interpreters I have found that the more that I question the VRS working environment, the less comfortable, less welcome, and less sure I feel about my role in VRS. This is a source of great conflict for me because I truly love the work, the constant raveling and unraveling of remote communication. The random display of smiling faces is both seductive and addictive, as are the scowls and scolds.

Community interpreting and VRS work differ in many important ways. One of the biggest differences in VRS work is the constraint under which it is conducted. It is common to not know and betimes stipulated that one not inquire who is who among the interlocutors or who wants what during a call. In fact, much of what goes by the name "interpreting" in video is actually much closer to what Simon (1983) describes as "satisficing" – a strategy for decision-making that prefers quick and educated guesses to informed opinions. In VRS terms, this means that the more experience I have as an interpreter, the better guesses I can make, and the faster I can make them. Efficient decision-making is prized because this new kind of "interpreting" is unique in the lack of information afforded interpreters. From phone protocol to negotiating conditions of employment to performance targets, established policies are shrouded in mystery, venerated but not validated in this new guesswork model of interpreting.

The problem

The government of the United States has been involved in a grand social experiment over the last few decades. Services that were once public concerns, things like defense, education, highways, criminal justice, and now sign language interpretation, have been given over to the control of the private sector. In each case, the profits for the private sector have been very clear. Analyses of the costs and benefits to our society, however, have been much less appreciated. Each of these

industries has dealt with scandal and profiteering on the one hand and fundamental questions of effectiveness on the other. Perhaps there is something to be learned from the collective experience of these other service industries.

The first decade of the twenty-first century has seen the business of sign language interpreting transformed from local concern to billion-dollar industry[3]. As recently as 40 years ago in the United States, interpreting was a prosaic community resource, with interpreters and deaf communities working together to define the field of interpreting. Today, however, regulations about how interpreting is defined and policies about how interpreting is practiced are set by government agency and institutionalized by private capital. Policies and practices that directly contravene core precepts of the moral philosophy of sign language interpreters are promulgated and enforced with little input from or regard for interpreters or interpreting.

There is a major paradigm shift underway, moving interpreters from *being* the technology of interpreting to *being mediated by* the technology of interpreting. Interpreters have always been fearless when it comes to cooperating in finding new ways to provide access to communication. Interpreters have, in fact, been in a window on a television screen for many years. Gannon (1981) shows that television newscasts, entertainment, and most notably, religious programs have featured sign language interpreting on a regular basis since the 1970s.

Given that working "… to ensure equal opportunity and access for all individuals"[4] is considered vital to the mission of the Registry of Interpreters for the Deaf (RID) it is little wonder that interpreters recognized immediately the obvious promise of VRS. In the early days of this new wonder, interpreters often found it necessary to bend the rules, to make accommodations to our practice in order to expedite the widespread availability of service to deaf communities and individuals. Only now do we see that we have enabled the VRS industry to fossilize the accommodations we made into regulations and limitations that often reduce the quality of work CAs can render. In so doing we have reduced the professional authority of interpreters to that of assembly line workers.

In declaring the values we hold most dear, professional sign language interpreters have long required the exercise of discretion in accepting work as a guiding principle in our ethical practice. Mention has been made of this in succeeding editions of the RID Code of Ethics. Cokely (2000: 35) reminds us that in 1965 it was "The interpreter shall recognize his own level of proficiency and use discretion in accepting assignments." By the revised edition of 1979 it had become "Interpreters shall use discretion in accepting assignments with regard to skill,

3. ibid. The revenue generated by the VRS industry was $1.9 billion in the years 2006–2009.

4. RID mission statement (http://www.rid.org/aboutRID/mission/index.cfm).

setting, and the persons requesting the service." (Cokely 2000: 37) Today it reads, "Interpreters accept assignments using discretion with regard to skill, communication mode, setting, and consumer needs" (http://www.rid.org/ethics/code/index.cfm, accessed 2/17/10). Indeed, the exercise of discretion in accepting work is a common precept in codes of ethics for professions as varied as morticians[5] and sex therapists.[6]

This ethos of discretion, however, is in direct conflict with FCC regulations found in Title 47 of the Code of Federal Regulations. This from the Mandatory Minimum Standards on page 266:

> Consistent with the obligations of telecommunications carrier operators, CAs are prohibited from refusing single or sequential calls…

This rule is widely interpreted to mean that interpreters working as communication assistants must without exception accept any and all calls; in other words, they must *not* exercise discretion. On their Video Relay Consumer Facts page[7] the FCC states it a little differently:

> Preferential treatment of calls is prohibited. VRS … providers must handle calls in the order in which they are received. They cannot selectively answer calls from certain consumers or certain locations.

From the frame of reference of the FCC, everything professional interpreters believe about the bedrock value of exercising discretion in our work is misprized, rendered inoperative. Here the caveat from RID on the applicability of our Code seems almost prescient:

> Federal, state or other statutes or regulations may supersede this Code of Professional Conduct. When there is a conflict between this code and local, state, or federal laws and regulations, the interpreter obeys the rule of law.
>
> (RID/NAD Code of Professional Conduct 2005: 2)

In spite of this landmark change in professional conduct, as a practitioner I continue to find that the promise of VRS makes it easy to sublimate concerns about ethical practice and professional standards. But it is not without regret that working in my current circumstances I regularly compromise my own principles and identity as a professional interpreter.

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5. From the website of the Funeral Ethics Association, (http://www.fea.org/ethics/manual1.html, accessed 2/17/10).

6. From the website of the American Association of Sexuality Counselors and Therapists (http://www.aasect.org/codeofethics.asp, accessed 2/17/10).

7. http://www.fcc.gov/cgb/consumerfacts/videorelay.html.

When we were being trained as VRS interpreters in 2003, we laughed at the way the FCC described interpreters and interpreting. We recognized both the risk and the risible in the notion that we *interpret* everything *verbatim*. We groaned and rolled our eyes at descriptions of our work that included the word "conduit" and expressions like "functional equivalent to a dial tone." What we did not foresee at the time was the possibility that memes like "conduit" and "dial tone" though antiquated, were also predictive.

This new model of service provision has had the very positive effect of making access to telephonic communication for deaf people widely and easily available. Through the use of the Internet, videophones, and CAs, deaf people *in the United States* today have access to free, unlimited international phone service. However, some seven years into the VRS for-profit model we can see that its effect on deaf people from other countries, Canada in particular, has been markedly less positive. When one VRS company from the United States set up shop in major cities in Canada, deaf communities across Canada experienced an immediate shortage in the availability of interpreters, a crisis that continues to this day.[8] This drama has been replayed in every community that has opened a VRS center. In Canada, however, since the service is not available to people who live and call outside the United States, the loss of interpreters in the community is not leveraged by greater access elsewhere. In June, 2010, the Canadian Association of the Deaf expressed their concerns in an ex parte filing to the FCC that includes the following sentiments:

> We know of dozens of cases in which Deaf Canadians have been forced to leave school and post-secondary institutions, have lost jobs or job interviews, have been denied important medical services including mental health or substance abuse treatments, and have missed out on meetings relating to vital social supports, because interpreters are no longer available once VRS call centers have been established in their region…
>
> …As it stands now, American VRS is a predator that is doing profound damage to the lives of Deaf Canadians without any offsetting benefits to us.
>
> (http://prodnet.www.neca.org/publicationsdocs/wwpdf/6410cad.pdf, accessed 6/15/10)

8. From an article in the May 9, 2008 edition of the Vancouver Sun (http://www.canada.com/vancouversun/news/westcoastnews/story.html?id=617e44af-c704-4b53-8d63-d8620390ca54, accessed 2/17/10), corroborated by B. Heath, personal email communication, 5/28/09).

Canada is not the only country to experience a sudden imbalance in the supply of and demand for interpreters due to market conditions in the United States. One company opened a call center in Manila, prompting this concern:

> Not only will we lose interpreters, but more importantly we will be losing teachers (since our interpreters in the country are primarily teachers first). And teachers who can sign are hard to come by here in the Philippines, since most of them are already working abroad. (Personal email communication, J. Baliza, 1/28/10)

In the current model of service provision, free and unlimited access to VRS in the United States has had profoundly negative consequences for deaf people around the world, a circumstance that deserves wider attention.

As industry inevitably widens the recruitment net, concerns mount about their expertise in the objective measurement of interpreting. When hiring in the United States companies are at least working under the nominal scrutiny of the deaf and interpreting communities in this country. Once hiring moves abroad standards for sign language interpreting change dramatically. The issue here is not just the relative quality of service but the relative culture. A quick command of cultural nuance is critical to our work, given how little other information is available.

What is known about video interpreting?

Research literature on the nascent field of VRS work is scant to date. This early work includes a basic task analysis of interpreting via video (Taylor 2005); a putative list of domains and competencies for VRS interpreting, albeit, one that is largely indistinguishable from the requisites for interpreting in any venue from the National Consortium of Interpreter Education Centers (NCIEC 2007); industry-sponsored data collection on the perspectives of a small sample of stakeholders in this enterprise (Taylor 2009); a similar perceptual study of practitioners and stakeholders (NCIEC 2008); and most recently and more promising, a sociological study of the perceptions of video interpreters (Brunson 2008) and early work from Dean, Pollard, and Samar (2010) that raises serious concerns about occupational risks and VRS.

There are also research studies that either pre-dated the VRS industry or were done outside of the scope of VRS as practiced in the United States. Notable here is a 2004 paper from the Canadian Network for Inclusive Cultural Exchange at University of Toronto that contains many insights into interpreters working in video settings. Also of note is important work by Moser-Mercer (2003) that shows

quite conclusively that the cognitive demands of video (remote) interpreting lead to fatigue and decline in quality much more quickly than does interpreting in face-to-face settings. Moser-Mercer finds:

> The onset of fatigue under remote conditions, as evidenced by a decrease in performance, appears to occur fairly soon after 'half-time,' i.e., somewhere between 15 and 18 minutes into a 30-minute turn. Quality of performance then declines consistently irrespective of time of day. Under live conditions variations in quality follow a very similar pattern throughout an interpreter's turn which confirms that a 30-minute turn corresponds largely to an interpreter's normal work span.
>
> We therefore need to conclude that remote interpretation increases an interpreter's mental workload and leads to fatigue and decline in performance faster than live interpretation. These results have been obtained by controlling individual performance differences that are normal across the interpreting population, by choosing a within-subject design and comparing the performance of the same interpreters working in two conditions, live and remote, at the same conference, hence on the same technical subject material and often for the same speakers. Therefore, any difference in performance must be attributed to the condition the interpreter worked in and the effect it had on his or her output.
>
> (http://www.aiic.net/community/print/default.cfm/page1125, accessed 2/17/10)

That this work pre-dates the widespread implementation of VRS in the United States leads to important and unanswered questions. The literature on fatigue factors in VRS work is as thin as it is grim. Moser-Mercer (2003) notes that the Association of International Conference Interpreters recommends that spoken language remote interpreters work no more than three hours per day. Moser-Mercer makes reference to "30-minute turns." In my experience, CAs are required to work at least 50 minutes of each hour. Why does the VRS industry in the United States have such different standards for working conditions? What research exists to show that the American standards should prevail?

Past as prologue

The story of a new technology arriving on the scene and supplanting an older, established technology is hardly unknown in our social history. One has only to look at the evolution of transportation to see how technological advancements led to improvements on the one hand and displaced craftsmen on the other. Postman's *Technopoly* (1993) is depressingly effective in angling a mirror on our past experience in "the surrender of culture to technology".

Even in the brief history of interpreting this phenomenon is not new. Indeed, interpreting by government fiat and institutional control in the 1980s spawned the discipline of educational interpreting. Then as now, "industry" instituted a new model of service provision without regard for objective input from interpreters. No one thought then to ask fundamental questions about the efficacy of interpreters in the classroom. Over the last 20 years evidence has begun to show (Johnson 1991; Winston 1994, 2005; Jones et al. 1997, Jones 2005; Ramsey 1997; Kurz and Caldwell Langer 2005; Marschark et al. 2005) that educational interpreting is woefully ineffective at its central purpose of "leveling the playing field" of classroom learning.

But now as then, "demand" is cited as the reason for making incredibly complex work the equivalent of entry-level employment. Now as then, interpreters of questionable qualifications are swept into positions as interpreters and managers of interpreters. Now as then, the stark lack of information and preparation often overwhelms practitioners, reducing the quality of both work and working conditions to standards far below those considered acceptable in the community. And now as then, the carefully crafted and considered certification process that interpreters created over many years is largely ignored in favor of putting warm bodies to work as soon as possible.

A tale of two settings

To demonstrate the extraordinary differences between community and VRS work compare the following assignments:

Setting A – Community Work

A three-hour lecture/discussion on The American Revolution for a graduate program in history

The deaf client is a university student. I have interpreted for him before in educational and other public settings. The guest lecturer is someone I do not know, but the department has provided his PowerPoint slides and notes ahead of time and I have taken a quick look at them. My team will be a staff interpreter at the university. We have worked together once before. Although I do not know her well, our prior experience was pleasant and positive.

We meet and chat with the deaf client a few minutes before the lecture is to begin. When the lecturer arrives, the professor introduces the team of interpreters. We have agreed that the staff interpreter will take the first 20-minute shift since she interprets regularly in the class and is more familiar with the established language use.

Once the lecture starts, my team and I fall into a steady rhythm. She is a very accomplished communicator. Her choices are appropriate for the academic setting yet still heavily and clearly inflected by ASL grammar and structure. As a bonus, she is every bit as good as a team interpreter. She monitors my product carefully, occasionally offering alternate vocabulary and filling in with details that I have not rendered completely.

Halfway through the three-hour lecture we take a twenty-minute break. Our deaf client has a question or two for the presenter. The presenter asks us for feedback on the relative accessibility of his lecture. This situation managed, our client suggests that we take the remaining fifteen minutes to refresh ourselves. The lecture concludes with a brief question-and-answer session.

The details of this assignment are typical of community work. The parties to and purpose of the job are known well in advance. The customs and conventions of interpreting have evolved over the years to facilitate this work. The innovation of team interpreting, now the norm in assignments lasting more than two hours, has afforded new opportunities for improving the quality of our work. The inclusion of a monitor is an extra and very effective measure of quality control. When new venues like educational interpreting have developed, these conventions have sometimes been modified, but often as not, the new venue has had to make accommodations for interpreting as much or more than interpreting has had to make accommodations for the new venue. Evidence for this is the norm of teaming in postsecondary educational interpreting, a neat example of the blending of venue and convention.

From the beginning, we have understood that certain factors are essential to successful interpreting. The topic and the preferred/required language modality ought be known beforehand so that interpreters can judge whether they are qualified for the task, and disqualify themselves when they are not. When both parties to the interpretation are unknown, interpreters often take special care to know as much as possible about the topic and the goal of the event. In interpretation, as in drama, consideration of the essential question "Who wants what?" is fundamental to the work.

In recent years we have considered interpreting as a social event, with the interpreter playing a central role in effecting communication. No longer do we accept the notion of interpreter as conduit. Remote interpreting has been done for many years, but almost always the interpreter has been in the same room as the deaf person and therefore had sufficient means to adjust language and behavior according to *social norms*; moreover, the *purpose* of the communication has always been known in advance.

Perhaps the most striking thing about these customs and conventions is that although they are expected, even required in community work, they are nowhere evident, and sometimes prohibited in the new VRS venue, where we see interpreting less as a social event and more as a mechanical function/commercial transaction.

Setting B – Video work
A three-hour shift at a VRS call center

My shift begins at 9:00am. I arrive as close to 8:55 as possible. I am permitted to log in five minutes before the start of my shift. This will give me time to prepare my workstation. Each station consists of a desktop computer and monitor, a television monitor, a videophone and a separate video camera, an Internet connection, a telephone, a white board, marker, and eraser, and remote controls for the videophone and television monitor. Booting up the computer, logging into the system software, and adjusting two separate video cameras to the horrors of fluorescent light can take every bit of the five-minute limit and more.

It is also permissible for me to arrive and log in five or so minutes after the hour. The company in fact incentivizes this. Being online and ready at the very moment a shift begins has a negative impact on the statistics (stats) that are the sole metric of work done here. At my company the functions of CAs are measured down to the second. CAs are allowed to log in several minutes past their scheduled start time and log out ten minutes before their end time, to enhance their stats by decreasing the number of minutes for which they must be paid[9]. How much the interpreter earns for the company and how much the interpreter costs the company are the two primary factors in industry's measurement of our work. Ironically, punching in and out exactly on time, the only way to be paid in full for time worked, can mean that interpreters ultimately earn less money. Work here is granted based on statistical obedience. Interpreters who are willing to trim their minutes and their paychecks by logging in late and logging out early or by foregoing breaks, see their stats improve. By company policy they receive priority consideration for future work.

I bioscan into the timecard system at precisely 8:55. My subsequent login to the client software also goes smoothly. I have adjusted my chair, the settings on both video cameras and am logged into the system in just under the allowable time.[10] I make other adjustments to my station, like repositioning the telephone (POTS, for "plain old telephone system") putting my white board, marker, and eraser at comfortable arm's length. Then I take one of the portable timers used to monitor the length of our breaks. I synchronize it to the second with the time

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9. Although hired at an hourly rate, CAs in my company are paid by the minute. In order to be paid for the minute, CAs must work a full 60 seconds. Since it takes time to log out after having worked the full 60 seconds, this means, in effect, that CAs must work for 61 minutes in order to be paid for 60.

10. If for any reason this process takes longer than five minutes (slow computers, equipment shortage or malfunction, etc.) I will be considered late and will have to provide management with a reason for "my" tardiness in hopes of avoiding demerits.

shown on the POTS, which is system time. This way I can measure and value my work the same way the company does.

In this three-hour shift I will handle 35 transactions. Each time I establish the company brand before introducing myself by ID number. It is company policy that their name replace mine on my work. Callers know me only by ID number. And just as I cannot introduce myself by name, neither am I supposed to inquire about the name of the caller. I will often know nothing or next to nothing about the people involved in or purpose of the interactions. Although many clients will smile, the most common greeting is "*Make the call*" costing me any opportunity to learn about the language style and preference of the callers or even about the reason for the call. About half the time callers headline the call, saying something on the order of "calling doctor" or "pizza". Though this information is minimal, it is like manna in the desert after having guessed my way through countless calls with no information whatever.

Team interpreting, the practice of having two or more interpreters alternate during assignments lasting longer than two hours, is thought absolutely essential in community work but is not practiced in VRS. Shifts of any length, from one hour to ten are done primarily alone. To be sure, I can call for a team any time I like, and, *if* one is available, he or she will come right to my station.[11] Several things hold me back from making this request. First, after years of measuring call volume, my company has become adept at paring down the number of available interpreters to an absolute minimum. During busy times, I have waited five minutes and longer for a team to become available. My second hesitation is that I believe my company to be the largest single employer of uncertified sign language interpreters in the world. Industry has even coined a neologism for these people, transforming them instantly from non-certified to "nearly" certified. As good as they might be, and some are very good indeed, they might also be completely out of their depth on any given call. When I call for a team, it is for the purpose of improving the quality of service offered. Lacking assurance that that will be the case, prudential behavior requires that I err on the side of caution. This caution is echoed in a study from the National Consortium of Interpreter Education Centers that shows:

11. In order to make sure that team interpreters do not dawdle, when a CA accepts the "Team Call" request, that interpreter is logged out of the system. The CA requesting the team must log the person back into the system when he or she arrives at the requestor's station. This process is repeated at the end of the call. Although this may not seem unreasonable, it is exemplar of a system whereby interpreters are actually statistically penalized by being "unplugged" for as long as two minutes just because they accepted a team request. A similar situation exists when CAs provide Customer Service to callers who are not connected to someone else. This system actually penalizes CAs for doing work they are required to do. Management is to date unresponsive when asked for a rationale for a system that statistically penalizes CAs for providing customer service.

> …some participants expressed reticence at requesting teams, usually because they were not comfortable with any of their colleagues who happen to be available or because they had had previous team interpreting experiences that were unsuccessful or unhelpful. (NCIEC 2008: 55)

My last consideration on teaming is that, like punctuality, teaming is openly discouraged at my company. Management chides interpreters who call for teams "too often" to be more careful in considering whether or not a team is necessary. In some cases, interpreters who call for teams "too often" have to log the reason they called for a team, or team only with management. This surrender of professional judgment to company policy is seen over and again in VRS work, where CAs are often told that they must trust that the company knows best. How the company came to be omniscient is not information that is available to the workers.[12]

In this three-hour shift I will "interpret" for 84 minutes, an average of 28 minutes per hour. The 84 minutes is more accurately referred to as the amount of time I am connected to two parties, or "billable minutes," the amount of time that the company bills for my service. I cannot say I am interpreting for this time, or even for most of it. Given that a good deal of energy in the first few minutes of an interpreted call often goes into discovering the characters and plot and that the average phone call lasts a little less than three minutes[13], it is not unusual for the parties to hang up before I ever know what is going on. Many times, the call begins and ends with me in a high state of creative imagining. Having little confidence in what I must say leads me to constantly explore new possibilities in ambiguity. Sometimes this all rises to the level of interpreting, but often it does not. I am unfamiliar with any like circumstance – not knowing who is talking to whom or why – qualifying as an interpreting assignment in venues outside of VRS. Indeed, knowing those things has long been considered a vital prerequisite to successful interpreting.

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12. In a notable example of the "Trust Us" doctrine, in 2008 one company denied its CAs permission to disconnect from a serial predator who connected with VRS not to place a call but to masturbate for the camera and shock unsuspecting female CAs. Instead of supporting the commonsensical immediate disconnect by CAs, the company instructed CAs to engage in a dialogue with this individual! The company claimed that its lawyers were not sure that CAs were eligible for legal protection from sexual harassment, and that in any case, "…our $500 an hour lawyers would (not) approve a policy that was illegal." CAs that found this policy unacceptable were instructed "We need to trust that the upper management does have our best interest at heart" and to "…reconsider your relationship with the company" and "…decide if this (protection from sexual harassment) is a hill you are willing to die on." (Email communication from company management, 4/16/2008).

13. These statistics come from my own recordkeeping. Information like this is not shared by Industry.

During my shift I am permitted three pre-designated breaks of no more than 10 minutes each. I must select my break time before I begin my shift. Break times are carefully monitored. I am subject to disciplinary action and demerits should my breaks last longer than 10 minutes or occur at times significantly different than the ones I sign up for when logging in.

The concept of "break" is different in my company than it is in many other work environments. Here CAs are frequently made to work during "breaks." CAs are required to read and sign memos, view training videos, and participate in required company functions, all during "breaks." Indeed, one of the "breaks" granted is the last 10 minutes of the last hour of each shift, a time that the FCC requires we not accept new calls, and time during which we are required to break down and clean up our stations. As we have seen earlier in the work of Moser-Mercer, this work model of 50 minutes on and (perhaps) 10 minutes off each hour is markedly different than safety standards established for video interpreting in spoken languages, both nationally and internationally.

The company keeps thorough statistics on every aspect of my work save one. The one thing the company does not concern themselves with is the quality of service I provide. Of the 13 categories included on my most recent annual performance review, only one describes quality, and then only to say that I always exceed expectations. However, on the topic of just what those expectations are, details remain unavailable.

I would like to know more about the measure of my work here and work generally in the VRS industry. Are there metrics that value intrinsic aspects of quality in interpreting, things like clarity of communication or suppleness of spirit? Or is quality really best measured solely by its conformity to mysterious targets?

Interpreting effectively and accurately, both receptively and expressively is a thing that can be measured. Quality can be known by careful attention to the data provided daily by interpreters. Perhaps the RID and the FCC should deal with each other directly in clarifying how "interpreting" works. Perhaps by removing bottom-line profit concerns, RID could help the FCC understand how industry constraints impact the quality of access that VRS is intended to provide.

Is this interpreting?

From the perspective of traditional interpreting, things in VRS are upside down. Working in the community, statistical reckonings of how many seconds it takes for this and how many minutes for that are meaningless. In VRS they are essential to continued employment. In the community, I am bound to adhere to the Code of Professional Conduct (CPC). In VRS, I am required to violate the CPC

in several particulars on nearly every call.[14] In the community, I am an individual, known by a name. Like the other participants in the unfolding social event being interpreted, I am making a public presentation of myself. In VRS I am a number seen in a standard issue box. The other participants do not see each other, rendering social norms unnecessary. Given the role social norms play in facilitating communication, the significance of this factor to successful VRS work cannot be overstated. In the community I can use things like greetings and eye contact in the decision making of my interpreting. In VRS, we are discouraged from "chatting" with our consumers. Eye contact, the soul of ASL, is not even possible.

Given the remarkable difference between what interpreters do in the community and what they do in VRS, I believe it is inaccurate, unethical, and misleading to call work done in VRS under federal and corporate constraints "interpreting." As we have already seen, it does not conform in many important ways to interpreting as defined by our professional organization. By the FCC's definition, the work CAs do is no different from what any Telephonic Relay Service (TRS) operator does. Neither the FCC nor industry recognizes the remarkable differences in circumstance, custom, and provision between typewriting and ASL-English interpreting/transliterating/educated guessing. Indeed, unlike other new venues that have made accommodations for interpreting, to date every accommodation made in VRS work has been made by interpreters.

A modest proposal

It is in the best interests of all parties for interpreters to accept forthwith the rebranding of video interpreters as communication assistants, and henceforth announce themselves to callers not as interpreters, but as CAs. In evidence for this claim I present the following definitions of the work done by each. From the Code of Federal Regulations, here is the FCC's understanding of what CAs do:

> CAs . . . must relay all conversation verbatim unless the relay user specifically requests summarization, or if the user requests interpretation of an ASL call.[15]

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14. The RID/NAD Code of Professional Conduct, which can be accessed at http://rid.org/ethics/code/index.cfm, stipulates the exercise of discretion (2.0 Professionalism, page 2); that interpreters are to exercise professionalism by "Assess(ing) consumer needs and the interpreting situation before and during the assignment and make adjustments as needed," (bullet point 2.2, page 3); cautions against multi-tasking (bullet point 3.3, page 3); and encourages interpreters to "… decline or discontinue assignments if working conditions are not safe, healthy, or conducive to interpreting (bullet point 6.5 on page 5).

15. Code of Federal Regulations 47: 266.

Compare this to the way RID describes interpreting in our Standard Practices Paper found on the RID website (www.rid.org):

> **About sign language interpreting**
> Interpreting is a complex process that requires a high degree of linguistic, cognitive and technical skills in both English and American Sign Language (ASL). Sign language interpreting, like spoken language interpreting, involves more than simply replacing a word of spoken English with a signed representation of that English word … Interpreters must thoroughly understand the subject matter in which they work so that they are able to convert information from one language, known as the source language, into another, known as the target language…
>
> **Professional conduct**
> It is the interpreter's sole responsibility to enable deaf or hard of hearing individuals the opportunity to communicate freely with hearing individuals. In order to do this, they must be given enough information about a particular assignment to allow them to determine if it is a situation where they can perform professionally. Content may be shared so the interpreter may determine if she or he has sufficient knowledge or skill to adequately convey the information in both languages.

Clearly there are provocative differences between those two very different understandings of what interpreters do in video and how they do it. The views of interpreters, however, are only one aspect of the issue. The views of consumers must also be considered, and perhaps, deferred to. It must be said that the interests of the consumers seem to align more closely with those of industry than those of interpreters. VRS consumers are actively defining acceptable tolerances of quality for this service.

> **Journal Entry – 8/1/08 – *Call Ownership and Rebooting the Router***
> Signing caller needs tech support, but has been bounced around for the last hour and is in a foul mood. He has already chastised me for adding "*a lot*" to his sarcastic "*thanks.*" "*I didn't say 'a lot! I don't want you to add anything to what I say!*" he glowers and waggles. The new tech support asks for the same information the previous three did. The caller forbad me writing down this information, so I have to ask again, and when the numbers flare from his angry hand, I miss a sequence, which sets him off again.
> And then it happens. Tech support says he will reboot the wireless router. As an interpreter, I should interpret this and be done. Rebooting the router will disconnect the videophone. Angry Hand will disappear, and the quality of my life will improve. That's what a dial tone would do. That's functional equivalence. As a customer service agent, I might alert the callers, but Glower and Waggle has commanded that I add nothing.
> Which role should I choose at this moment?

Customer satisfaction

The quality of VRS service is ultimately in the hands of the end users. So long as they are satisfied, or at the very least, not widely, publicly, and actively *dis*satisfied, then the quality of communication they receive must be acknowledged as acceptable. Little is known about this topic, other than anecdotally. VRS companies are required to keep and publish complaint logs, but these documents tell us only that very few callers bother to file complaints. In the year ending in June, 2008, a company that billed for 43 million minutes (or 717,000 hours) logged only 552 complaints, according the Annual Complaint Summary available on their website[16], which works out to a complaint per hour ratio of 1 to 1300. Although the number of complaints is known, the number of plaintiffs is not, and so while these complaints may all be well justified, it is also possible that the number is skewed by peevishness on the part of disgruntled consumers.

Of those complaints, the most common are poor CA etiquette and poor CA quality. Unfortunately, once again industry's definition of "quality" here is unavailable. We are trained that callers want us to smile more. Perhaps if CAs are not smiling enough it is because we are rendered numb by non-stop slam dancing with the human condition. I have found that it is sometimes difficult to compose my face into a smile in the 15 seconds I am permitted between the death of a child and God-knows-what's-next. If 15 seconds is not sufficient, I am free to "unplug", to log off. However, the numerous tote boards, tally sheets, and slogans on the walls of my workplace warn me that downtime hurts my stats. As a professional interpreter my choice is clear: Exercise Discretion; take the time needed to "recharge" between assignments. But here my professional judgment is subordinate to company policy. Here I am not an interpreter. Here I am an employee.[17]

It is not for me to judge for callers what they ought to find acceptable about communication assistance. In fact callers are clear in expressing a preference for communication over interpretation. As mentioned, it often happens that a caller connects with the CA not with a greeting, but with a business-like "*Make the call*." In starting our interaction this way the caller has selected a level of communication. In the case of "*Make the call*," the choice is to go with improvisation. Having

16. VRS providers are required to file an annual complaint log summary. Links to these can be found at http://www.fcc.gov/cgb/dro/trs_providers.html.

17. How industry came to determine that 15 seconds between calls was sufficient is unknown. What is known is that this decision was made when call volume was comparatively very low. In the time since, call volume has exploded, but the 15-second rule remains in force.

come from the ranks of improvisational theater, personally speaking, I enjoy improvisation. It is challenging and can be quite satisfying. But this type of interaction is closer to video gaming than it is to interpreting.

If Nintendo® were to create a video game called *Interpreting*, it would look much like VRS. Like video gamers, CAs must constantly decide which character to "play as." Each of the possible choices – Interpreter, Customer Service Representative, Communication Assistant, Employee – has different powers that are best suited to certain circumstances. CAs and gamers both start knowing little about their environments. Mistakes made and experience gained lead to improved play. Repeated play leads to the unlocking of new characters with new powers. At times the screen looks realistic, but at other times it shows the limitations of two-dimensional representation. In both settings, when we are defeated, we get another "life" in seconds. Clearly VRS work compares as readily to video gaming as it does to interpreting.

One fear I have is that the caller thinks that a greeting like "*Make the call*" is what amounts to "call ownership," a policy of questionable yet highly touted virtue. Callers are trained to think that call ownership places them on more equal footing in communicating, which, in ideal circumstances might be the case. But the circumstances of VRS are hardly ideal, and any suggestion to the caller that collaboration is not necessary to successful communication does a real disservice to the caller, the community, and the service itself.

In an extreme version of call ownership, callers are told that they can direct the CA to "not announce," meaning that the CA does not announce to the hearing caller that this is an "interpreted" call. Apparently some callers think that sounding like they do not know how to pronounce their own names, products, or interests somehow gives them an advantage.

The following is an homage to an "unannounced" call. Imagine yourself to be the Director of Human Resources of a growing young company. You have emailed a promising candidate to set up a phone interview. You do not know the candidate is deaf. One of the first attributes you want to assess in this interview is communication skill, an absolute must for any candidate. The call comes through, and you hear:

> Hi, I'm Jim Smith… Field, Feld, Smithfield, … son? Jim Smithfieldson… and … I'm sorry. My name is Jim Smith-Feldsen calling in for the job interview.
> A little bit about myself… I have five years experience as a… programmer… I mean project specialist in… designing computers? I mean, computer aided-design. I have lots of experience using . . . *different* software programs… associated with… drafting?

From the perspective of an interpreter it is possible to see how every choice made in the selection above was an acceptable choice to make at the time it was made. My caller's determination to not announce places an enormous premium on pauses and prosody. This is fine theater! It has the prime ingredients of conflict and action in good supply. Characters are becoming known, quickly and sympathetically. A plot is developing. It is interactive and engaging. But if this is theater for the other participants in this call, then it is theater by Artaud, Theater of Cruelty. Artaud (1958) describes this as theater between thought and gesture, where language and truth are in constant conflict.

On the other end of the spectrum of call ownership, savvy callers are a joy. When a caller greets me with information instead of command, everything seems to slow down and become peaceful. I have no idea how to measure this mood, but it is fundamental to my stamina. When what is wanted is interpretation, savvy callers know that names and purposes are essential ingredients to clear communication. Some callers even have printed boards with their names, addresses, and significant ID information. The sight of one of these never fails to fill me with gratitude. It is so much easier on the eyes, after having "read the screen" for the past however many hours.

Callers are well aware of the quality and contents of VRS calls. They are defining/have defined that VRS is often to them a very casual circumstance, one requiring little attention. Callers have the right to use VRS as they choose. If they want to be texting and online shopping and eating and having off-camera conversations while holding their squirming dog and/or child and smoking all while connected to VRS in front of a very bright window, that is their choice. To think that interpretation is what they are *seeing* or *seeking* in every circumstance is sheer folly. Sometimes a prescription refill is just a prescription refill. Nowadays this requires little more than keying in a set of numbers on cue, hardly the sort of work that requires a bachelor's degree, or certification. In terms of receptive skill, this is basic number recognition, mastered most often in ASL 1 classes. Here then, more evidence in favor of the prevailing view that CA work is chiefly mechanical function, i.e., that assistance in communication is more important than command of language.

Although I hire myself out to VRS as an interpreter, I remind myself that my narrative is not the narrative of the callers. It does little good to think of oneself as a gourmet chef when what consumers want is fast food from a drive-through window. This "disconnect" at times causes me some disequilibrium but there is no reason to be disheartened. As we have seen, the traditional standards of interpreting do not apply in many areas of VRS work.

Here again, there is wisdom to the idea of adopting for ourselves the label given us by the FCC. Embracing the title CA will allow us to rescale what we do

and how we do it. Industry would prefer to have it both ways – to hold CAs to the highest standards of interpreting while treating interpreters as semi-skilled labor. Indeed, there is a good deal of evidence to date that this is a foregone conclusion, that interpreters have been too compliant for too long to now claim professional status or to deserve a seat at the table where decisions are made.

Embracing the title of communication assistant might also help us to skirt the troubling ethical conflict regarding team interpreting. Consider that we have for at least 20 years been telling our paying consumers in the community that interpreting assignments lasting over two hours would require a team of at least two interpreters, because of cognitive stress, fatigue, and the like. What are we to tell these consumers when they discover that *they* have to pay for two interpreters even though the same two interpreters willingly work in much more complex circumstances with no team for periods of time far longer than two hours? There is an ethical conflict brewing here. Interpreters either need teams or they do not. It cannot be the case that the simpler situations all require teams but the complicated situations do not. Working in VRS without a team for periods of time longer than two hours invalidates our justification for having teams at all. Unless, of course, we simply accept that what CAs do is not interpreting, and is therefore exempt from the exacting standards interpreters have created for their work.

There is clear precedent for this type of rebranding. Interpreters who work as administrative assistants for deaf people often have responsibilities other than interpreting, as do interpreters working in primary and secondary schools. In recognition of this, we add the descriptor *Educational* to the title *Interpreter* as a mark of distinction. Calling ourselves communication assistants would free us of any conflicts we might have in violating basic precepts of Code of Professional Conduct and help align us with paraprofessionals in other fields. More important, it would not confuse the public about the role and responsibility of interpreters. It has taken us many years to educate the public about interpreters and interpreting. We threaten to undo this work when our public behavior is inconsistent with our published standards.

Journal Entry 9/10/09 – *Morale*
It used to be that frequently colleagues would hear my work or I theirs, and we would talk about a choice or a trend or a sign or a word. One of the real bonuses in the early days of VRS was that it brought interpreters together in varying combinations to talk about our work. Not only did we discuss the work, we got to listen to each other's practice. I am not the only interpreter in this environment to have been enchanted by hearing a colleague's virtuoso performance, listening with a kleptomaniac's ear. Our interpreting is much improved by this close congress.

> But those discussions happen less often nowadays. Today the clock judges us harshly. Five seconds for this, ten seconds for that. Break times and lengths are pre-determined and strictly monitored. Infractions are noted and penalties exacted. Time once spent in happy collaboration is now spent mainly in grim determination.
> It is time for me to leave this environment. To say goodbye to being told that STATS is just an acronym for So Totally And Thoroughly Superb. Goodbye to ringing a bell when I offer great customer service. To dressing up below the knees on Thursdays, to being hired by the hour but paid by the minute.
> The challenge of communication is as vital as ever, but the challenge of seeing the art and science of interpreting reduced to assembly line piecework; measured in seconds and sold in bulk; has robbed me of the pleasure I once took from this work.

Profession in pentimento

The canvas upon which we have sketched the outlines of our profession has been painted over in an institutional hue. Some of the darker lines are yet visible underneath this new cover, rendering us now in pentimento. I have here advanced arguments for distinguishing between interpreting and the work of CAs in VRS for practical as well as ethical reasons. I suggest we redraw some of the lines that are being obscured, especially reinforcing those that mark us as interpreters and what we do as interpreting. The actions we take or fail to take in the near future will either prove interpreting as a profession or reduce it to a function. As layer on layer of new cover is added to our canvas, the definition of our profession depends upon our scrupulous attention.

Recent communication from RID is cause for hope. In an ex parte filing to the FCC, Janet Bailey, the Government Relations Representative for RID writes:

> …access to qualified interpreters requires a commitment to their occupational health and safety; assurance of a working environment which offers support for vicarious trauma, implementation of preventative efforts against repetitive motion injuries, adequate access and utilization of certified deaf interpreters and more.
>
> We believe that there must be equal investment in technological development AND the professional interpreters who support the VRS industry. This investment will assure a strong interpreter base equipped to provide the interpretation…
>
> (RID reply comments/Docket No. 03-123/May 21, 2010, accessed at http://www.rid.org/interpreting/index.cfm/AID/177)

Last call

Much of this is bittersweet for me. I can feel the need to stop working here, but my attachment to VRS is very strong. Those feelings are likely amplified by the ticking of my biological clock. There is a growing population 40 years younger than I about whom I know nothing and for whom I am not an effective interpreter.

Still, I love the rush of a call gone well. One of the most addictive aspects of working in video is the capacity of this medium to surprise, delight, and humble an interpreter, sometimes in the space of a single call. My particular favorite is saying "I love you", especially to family. When I have the chance to pledge filial love in the virtual world, I invest it with all my experience. When I commit the perfect "I love you, Mom," I get to feel it! Having done, aglow with the realization of mother-love, I know happiness as I wait for the next caller to discover me, smiling for all the world.

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Through a historical lens

Contextualizing interpreting research

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Emphasis is often placed on new and innovative studies to advance the knowledge of the translation and interpreting field(s). These studies have yet to capture the language brokering, translation, and interpreting activities that took place historically within Deaf communities and still occurs to this day. We contend that by examining early interpreting work undertaken in the Deaf community, interpreting professionals are better able to understand how they have arrived at this point in their history. This examination provides novel insights into Deaf communities' selection and use of Deaf people as language brokers. We argue that, within a historic paradigm, the emergence of the interpreting profession and how it is embedded within nascent Deaf communities may be more fully understood.

Introduction

Although we research Deaf[1] communities and the interpreters of and for those communities principally, all language communities need to be understood in their historical context. Without this context, superficial conclusions may as a result be drawn about a community and its language practices. Any research data in current practices can be more rigorously examined if the researcher frames it within a historically accurate understanding of these practices. This introduction will examine language communities in their historical context and look at power differences so that we can begin to understand why different communities have different traditions. Firstly, we begin by looking at the history of interpreting in general and then examine the translation and interpreting roles Deaf people have historically undertaken within their communities.

1. In this chapter "Deaf" refers to people who are a part of a language and cultural group, while "deaf" refers to people with a hearing loss who see themselves as having a medical or audiological condition.

A little "invisible" driver of history

Throughout history, communities have been in contact with each other and have required some way of communicating with each other. Some communities came together as linguistic equals from regional/national language groups to conduct trade on an equal footing (Lung 2008). Other communities needed to employ multi-lingual people to interact with another major regional/national language group. This was sometimes undertaken via a lingua franca such as with the Gaelic speakers of Ireland during the Tudor period, who spoke Latin to interact with officials, in conjunction with interpreters working between Gaelic and English (Palmer 2003). Some communities interacted on a less equal footing and needed linguistic access to stand against colonial powers. In New Zealand the Waitangi treaty is still used to assert the rights of traditional iwi and hapū landowners.

The language statuses of linguistic minority communities are often under threat of oppression by the wider community, overtly or covertly. This happens with both spoken and sign languages, especially regional languages (cf. Occitan, Welsh, Breton, Maritime Sign) as well as languages used by a (powerless) minority (e.g., Cajun, Irish Sign Language). It is difficult to find overt acts of interpreting throughout history and even more so when a dominant language starts to be used by younger members of a community. Moreover it is only high status interpreting that is reported as such between states (Baigorri-Jalón 2005) or within religious contexts such as, synagogue consecutive interpreting (Kaufmann 2005).

Most communities (such as those cited above) have members of their community who act as interpreters. Many of these interactions are documented by controlling powers who explicitly need those that cannot speak a specific language to be brought under control. For example the "barbarians" the ancient Egyptian King Neferrika-Re wished to ensure obeyed him through "translators" (Hermann 1956/2002); the use of a lingua franca such as French and Spanish in a North American context (Davis 1999); and the less frequently acknowledged interactions in China, which would have been impossible without interpreters (Lung and Li 2005) relaying between several languages.

Without the interpreters being present, or at least language learners who needed to function as interpreters, many histories would be different; this central force and the interpreters' voices are often lost with them being reported as guides, negotiators, reporters, historians, or left out of references altogether with the implication of an interaction being monolingual when it was not. One of our challenges as interpreting researchers is to uncover the hidden histories of interpreters, both from within communities or as outsiders to them. These interpreters may be people with mixed identities and with mixed heritages, those arriving

in a place as bilingual, or growing up with two languages – one of the home and another of the wider community.

All of these historically distinct situations provide information about many types of groups, different language situations, and competing historical processes. By understanding these historical processes and the particularity of a situation we can understand how interpreting has become institutionalized in separate geopolitical spaces. We argue that the tensions we see can be understood by comparing similar historical events, e.g. if we look at the rise of power and geographical expansion of the Roman Empire and the concomitant use of Latin, this may give us clues to the mechanisms involved in the globalisation of English. In examining the use of translators and interpreters within this period we could generate a framework for understanding interpreting for both community and conference interpreting within a global language context.

Understanding the particularities of any single event is fraught with tension. By careful reading of historical documents and an understanding of the context of these documents within their own frames of reference we gain a greater understanding, which we can then be applied to current research studies. Now let us look at some history.

A community without linguistic barriers?

Many of the histories of interpreters are hidden, e.g. there are some references to people undertaking everyday activities via interpreters, such as marriage (Berger 1997), but these interpreters are unnamed and their expertise undocumented. They still serve to identify complex multi-lingual environments and expectations of those situations. These environments are much like those experienced by Deaf communities and those who interpreter for those communities including Deaf people.

One complex multilingual community that we have some record of is Martha's Vineyard. An island off the East coast of America near Massachusetts, Martha's Vineyard had a higher than usual proportion of Deaf people. In fact as much as 25 percent of the population at one time in one place was born deaf. As a result, Martha's Vineyard developed into a bilingual community where, "everyone spoke sign" (Groce 1985). Careful reading of Groce allows for the understanding that many of the community were bilingual (to a lesser or greater degree depending on their interaction and familial relation to a deaf person) but the languages did not have equal status. A male interviewee said, "And oftentimes people would tell stories and make signs at the same time so everyone could follow him together" (Groce 1985: 60). This was said despite the fact that islanders said the syntax of

the spoken and signed languages were different (ibid.). The man goes on to say, "Of course, sometimes, if there were more deaf [sic] than hearing there, everyone would speak sign language-just to be polite, you know." There may also have been members of the community who interpreted between Deaf and hearing people, and were preferred as interpreters. Groce (1985: 63) reports, for example, that the wives of many Deaf islanders served as interpreters for church services.

Is it not only individuals from the majority language group who work as interpreters; individuals from the minority or "weaker" language community do so as well. This is often not reported and effort needs to be made to ensure that a multilingual environment has not been documented as a monolingual interaction. Much as English reporters do not discuss the Gaelic spoken during the Tudor period (Palmer 2003), Deaf people's interpreting role within their communities and at the interface with the mainstream has also been hidden.

It is our view that the history of Deaf interpreting is a mirror image of that of "hearing" sign language interpreting, with similar milestones, but a very different history and power relationships in particular. Deaf interpreters are uniquely situated at the point of contact between two different languages and cultures, which are of unequal status. This situation means that there are consequences of power and equality, and even though there has been analysis of minority cultures from within and from outside, the Deaf community it is still little explored or understood. We argue that understanding can come from a careful reading of historical documents, examining them within their historical context, and describing how they can apply to current issues.

An early family-based solution

One of the earliest references (described in greater depth below) of a Deaf woman (Sarah Pratt) of New England using interpreters within a religious educational context clearly describes Deaf and non-Deaf family members rendering sign language into spoken and written English. It is reported from the mainstream community perspective but fortunately mentions the multilingual environment so we can identify this as an interpreted interaction. Mather notes that, "there are several others in this Countrey who are Deaf and Dumb" (Carty et al. 2009: 309). The word "Countrey" would be understood to mean people living within the vicinity who would be neighbours and so this indicates there was a community of people who were deaf (could not hear) and from this we can infer there may have been a Deaf community (a group of deaf people using sign language and identifying as a distinct cultural group) in the area.

The wider family had some familiarity with sign language, or the sign communication used by Sarah Pratt. Along with her sisters, Sarah and her Deaf husband Matthew's nine children were all able to, "sign from the Breast, and learn to speak by their eyes and fingers sooner than by their tongues" (ibid.: 311). This further supports the idea that Sarah and her husband were Deaf members of the Deaf community and that their children grew up as bilinguals.

Matthew and her hearing family had different roles within the interaction and it would appear that both forms of interpreting (by the sisters) and sight translation (by the Deaf husband) were important for the church elders to convince them of the account/testimony: "An account of her Experiences was taken from her in writing by her Husband; upon which she was Examined by the Elders of the Church, they improving her Husband and two of her sisters . . . by whose help they attained good satisfaction." (ibid.: 309). This resulted in Sarah Pratt being admitted into the congregation in Weymouth, an important position in puritan colonial America.

The example above has clearly shown that both Deaf and non-Deaf people have undertaken the rendering of a sign language into a spoken/written language and vice versa. Now we will discuss the development and use of sign language interpreters over the last few hundred years.

Sign language interpreters and deaf interpreters

Sign language interpreting has taken place for hundreds of years (and potentially as long as spoken language interpreting), often performed by family members (as discussed above) or (in the last 250 years) hearing people who were teachers or welfare workers (Ozolins and Bridge 1999; Stone and Woll 2008). Sign language interpreting became seen as a profession only later in the 20th century (Napier, McKee and Goswell 2006). To some extent spoken language interpreting as a sole profession also has a more recent history hence the need for careful reading of historical texts to identify those working as interpreters within a variety of contexts. One of those contexts is identifying Deaf people working as language brokers, sight translators and interpreters.

There is an emerging body of research looking at the Deaf community and its history with a postcolonial lens. This identifies the institutional power often exerted on Deaf communities, their language and their identities. Recent work has proposed and explored the concept of "Deafhood" (Ladd 2003), a way of describing how deaf people develop a sense of what it means to be Deaf; how "deaf" experiences converge through socialisation with other deaf and Deaf people. This

continual process of identification, mutual acceptance, re-identification and redefining oneself amongst one's peers, allies and enemies forges the "Deaf" self. This complex situation contributes to the need to explore and uncover the interpreting that occurs within the community and when interacting with the mainstream.

The Deaf interpreter is one manifestation of the Deaf self, with its own habitus and cultural capital (Bourdieu 1986). This could be seen as an analogue of the processes those of mixed heritage and mixed language identity undergo (Clément et al. 2001). These complex linguistic identities also ensure that any language brokering, interpreting or translation is not reported or discussed explicitly. Adam et al. (2011) describes Deaf ghostwriters' experiences as examples of Deaf embodied cultural capital (Bourdieu 1986), not just linguistic capital (Bourdieu 1991) but also its acquired habitus. The Deaf translation norm (Stone 2009) places a subsequent expectation or habitus on interpreters (Inghilleri 2003) culturally sensitive to Deaf values working within the Deaf community. By placing this within its socio-historical context we can understand how interpreters, from outside the community, may need to situate themselves to best achieve an appropriate way of working with their Deaf clients/service users. So historic documents since the 1500s can be useful in uncovering sign language interpreters and Deaf interpreters.

Interpreting "interpreters" throughout history

It needs to be noted that a great deal of the documented history of sign language interpreting has largely focussed on Europe, North America, and Australasia. This parallels Deaf studies where the, "historical description and sociological research data, and consequently, theories about "Deaf communities" has been concentrated upon European and North American society" (Woll and Adam in press). So although there may be earlier instances of sign language interpreting than reported below these have not yet come to light.

There is an early example of an institutional use of signing in St Martin's Parish in Leicestershire in 1575. In this context there is no mention of an interpreter and yet the record shows that a Thomas Tilsye marries Ursula Russell, "the sayde Thomas, for the expression of his minde instead of words, of his own accorde used these signs" (St. Martin's Parish register, 1575 cited in Cockayne 2003). Without explicit mention of an interpreter, or interpreting, having taken place we cannot be sure, but this is the type of situation one might expect interpreting to have taken place. What is also of interest is that this predates the establishment of residential schools and a documented Deaf community in the UK. That being the case it may be that it was a deaf person who used iconic gestures rather than a sign language.

We understand what happened in some institutions, and the experiences of Deaf people and instances of interpreting within them. In recent history it is easy to identify the establishment of schools, Deaf missions, and other sites where interpreting would have taken place. One of the older institutions would have been the Ottoman Court between 1500–1700 (Miles 2000). Here we can see that those using sign language (who may or may not have been deaf) were given a high status by the Sultans. Other members of the court started to use the signing system of the mutes. And their status in the court was such that they were invited on at least one occasion, "to a banquet and, with a sign translator's help… impressed [the Dutch ambassador Cornelis Haga] by their eloquence on many topics (Deusingen 1600, transl. Sibscota, 1670: 42–43 cited in Miles 2000: 123). In this instance there is an explicit reference to language rendering occurring although little else is documented.

In France it is recorded that an annual banquet was held in Paris, established by Berthier (Quartararo 2002), where the speeches given at the banquet (in sign language) were written down in French. Knowing that these banquets were for Deaf gentleman it is reasonable to suggest that this could be an early instance of Deaf "ghostwriting" (see below) even though this is not recorded as such.

These examples demonstrate that when non-Deaf people wanted to marvel at the ability of Deaf people using signed communication the references are overt, yet when Deaf people recorded their history and wished to share their contributions with society the translation and/or interpreting act is covert. More interpreting activity might be found by looking for specific instances of communities interacting, especially of those with less status such as Deaf people, disabled people or women. Similarly, this might establish a community norm for interpreting activity that is useful to understand and analyse as the foundational norm of more recent interpreting activity.

One of the first *systematic* institutional instances of sign language interpreting is in the courts in England. The Old Bailey (Central London Criminal Court) records eleven references to people as "deaf and dumb" from 1725–1800 using interpreters (Old Bailey Proceedings online). These Deaf people are not only prisoners, but also as witnesses and complainants. The Court appears to have permitted d/Deaf people to take part in criminal proceedings in all capacities, with family members, work "colleagues" or employers and teachers who ensured that d/Deaf people's contributions were interpreted to the satisfaction of the court. The first case in was 1771, when a person, "with whom he had formerly lived as a servant was sworn interpreter" and "explained to him the nature of his indictment by signs" (Stone and Woll 2008: 231).

As can be see we often need further documents to corroborate whether an interpreter was used even if it is made clear one of the people involved in a situation

could not speak the language in use by the remainder of those present. With deaf people this can be less clear because they may have lost their hearing, have been born deaf, but taught a spoken language and engaged either by lipreading or written communication in literate societies, or use complex gestural systems whilst not coming into contact with a wider sign language using Deaf community and therefore not having developed fluency in a local/regional/national sign language.

Ethnography and history

Another way of exploring recent history is by conducting an ethnographic study, allowing participants to talk about their lives within their own cultural frameworks and then analyzing these data. Adam et al. (2011) collected data by ethnographic semi-structured interviews (Spradley 1979; Young and Ackerman 2001), which are a part of a multilayered research process where selecting a problem, collecting data, analyzing data, formulating hypotheses, and writing all happen simultaneously in the research process.

Our research originally came about from discussions between the Deaf interviewer and the hearing collaborator in relation to doctoral research by the hearing collaborator on Deaf people performing translations in the media (Stone 2009). This doctoral research found that Deaf people not only undertook translation within the Deaf community, but in professional domains as well, indicating that the definition of a "Deaf interpreter" from a Deaf community perspective (rather than a mainstream institutional one) is possibly not clear (see the discussion of terminology below).

As expected with a critical ethnographic approach the interviews were analyzed to find common themes that emerged from the interviews. By triangulating the interviews to ensure that the themes were representative, these themes were re-presented to the participants in second interviews. This has a twofold motivation: one, that the participants could validate the themes and confirm descriptions were couched in their cultural framework and two, that further saturation of the data could be achieved allowing for more complete descriptions to be realized.

It was then decided to interview Deaf people who perform language brokering and translation within the Deaf community to develop more understanding of their role in the language brokering process. These Deaf people have been known as ghostwriters in the Australian Deaf community and this phenomena was something we wished to explore. This research involved some domain analysis of Deaf culture as a cultural group (Spradley 1979) due to the relationship between ghostwriters and Deaf culture as a whole and involved a "search for the larger units of cultural knowledge" (Spradley 1979: 94). It is suggested that the

relationship between the community and its internal language brokers may lead to a better understanding of the Deaf community as a minority culture.

As the participants were aged 50–80, it was possible to use these interviews to reach further into the past and ask interview participants about Deaf people from 100–150 years earlier, shedding further light on primary historic references. The ghostwriters were able to recall anecdotes about Deaf people who lived in earlier times, and about their interactions with other members of the Deaf community (Adam et al. 2011). It turned out that a number of interviewees actually named people who were the subject of analysis of the Deaf community organizations in Australia during the 1930s.

These interviews in conjunction with Carty's (2004) dissertation uncovered a new perspective on these people who were ghostwriters. In her research, Carty used a range of materials including: newsletters, magazines, meeting minutes, correspondence and Annual Reports of many Deaf organizations, to get a picture of what happened in Deaf community organizations during the 1920s and 1930s. There were also books, but also newspaper reports, Government Hansard (the UK parliamentary daily) reports and other government reports used. Carty also conducted interviews with Deaf individuals and obtained access to older interviews with deceased informants. She was particularly able to get an insight in the tensions within the community through self-published newsletters by a Deaf man, J. P. Bourke (Carty 2004: 4).

The official history of Deaf organizations, "like histories of other subaltern groups… tended to progress from 'great men' stories of founders and benefactors (usually hearing) of schools and Missions" (Carty 2004: 9), focusing on the institutions and not the actual individuals. And yet:

> it is becoming apparent that deaf people have played a larger role in their own history than has been recognized… deaf people were actively involved in trying to shape their own experience. They were often thwarted by hearing people who controlled wealth and institutions, but still they struggled. (Van Cleve 1993)

With respect to Deaf interpreters, we now know from looking at some of the published research and interviews with older Deaf people, that there was some sort of language brokering taking place in Australia and Britain, though there is next to no mention of this in the official documents. There are parallels with the history of Deaf education, where famous Deaf educators and deaf members of the Deaf community, Jean Massieu and Laurent Clerc, were "mere shadows" (Carty 2004) in earlier published history but have taken a more prominent role in later accounts of the establishment of schools for the Deaf in France and the USA. We know from the Old Bailey records that there were interpreters accompanying Deaf people in court cases (Stone and Woll 2008), and yet, we know very little about Deaf people doing translations for other Deaf people.

One place where ghostwriters (or Deaf language brokers) have been found is the institutional history of the Deaf community in the UK. The Joint Examinations Board which was established in the United Kingdom 1928, the forerunner of the Deaf Welfare Examination Board (DWEB) which had the purpose of selecting and training Welfare Workers and Missioners with the Deaf. Not only were hearing people awarded qualifications, Deaf people were certified by DWEB and sent to work at the many Deaf clubs and centres around the UK. The Board issued qualifications, which were recognised by the British Government, and members were admitted to the Institute of Social Welfare, a professional body (Simpson 2007) and included an interpreting assessment. The records do not show that any of these welfare workers were Deaf, even there were many.

As Carty et al. (2009) remark, Deaf history in the USA has tended to concentrate on the establishment of Deaf schools and community organisations in the nineteenth and twentieth centuries. With the publication of this subaltern history however, it is possible to draw conclusions about these people. From Carty's doctoral work we know that some of these people were actually paid staff members or committee members of Deaf organisations. Further, these Deaf individuals are described as having good English and sign language skills, and we know which of these people were native signers, because they had Deaf parents. So what do we know of Deaf interpreters and how can we draw together historical records and ethnographic research to gain more than a superficial understanding of their roles and functions?

Deaf interpreters (ghostwriters?)

We have shown that the history of Deaf interpreters (who we will call ghostwriters) is not as well recorded, as it has been for "hearing" sign language interpreters. It is conceivable that for as long as there have been Deaf communities, there have been Deaf people who have performed language-brokering tasks. The earliest reference that we have found being of Matthew Pratt (Sarah Pratt's husband described above) in the mid 17th century. More recently for established Deaf communities it has been reported that Deaf people have acted as covert interpreters in the classroom (Bienvenu and Colonomos 1992; Adam et al. 2011; Boudreault 2005). This is where Deaf children have supported each other in the classroom, usually as a consequence of the poor signing fluency of the classroom teacher. Deaf children have even asked other Deaf children to draft letters home to their parents from boarding school (Adam et al. 2011). The significance of this cannot be understated, as this is where ultimately expectations of bilinguals and subsequently interpreters are formed.

The Deaf Club has been an important starting place for Deaf interpreters in the Western context (Ladd 2003; Adam et al. 2011). Deaf people have traditionally turned to their fellow community members for assistance in translating English text into sign language, or the dictation of English text from sign language. There has traditionally been a skills exchange in the Deaf club where Deaf people with manual skills often performed tasks for other Deaf people. Both Ladd (2003) and Adam et al. (2011) report that Deaf people not only exchanged manual skills; Deaf people also performed translation tasks for other Deaf members of the community. Adam et al. (2011) found that ghostwriters performed a range of tasks including: translation to and from a sign language, spoken and sign language interpreting, interpreting between two sign languages, and passing on cultural capital. These ghostwriters have repaid the Deaf community for their increased social capital, (Bourdieu 1986) resulting in a higher cultural capital. This appears to be different for those Deaf people with Deaf parents, who have a different cultural capital by virtue of birth and with it a different sense of community obligations.

Much of this history is unknown even by hearing children born into the Deaf community and as such the professional development of Deaf interpreters has happened without taking this history into account. In the USA, the Registry of Interpreters for the Deaf (RID) accorded professional recognition Deaf interpreters in 1972 (Boudreault 2005) when the Reverse Skills Certificate (RSC) was established, which was used to certify Deaf or hard of hearing people who worked between American Sign Language (ASL) and spoken English and/or an English based form of sign language. It was noted that it was awarded mostly to hard of hearing people whose preferred language of communication was spoken English and did not really mix with the Deaf community; this certificate was a means for allowing Deaf people to join evaluation committees of RID (Bienvenu and Colonomos 1992). So by testing something that was deemed appropriate rather than drawing upon the knowledge of ghostwriters, non-traditional expertise was brought in to develop the profession.

Encouraged by United States legislation, which highlighted access to communication in the legal and medical services, there was an increased demand for RSC interpreters, but this qualification was changed to "Relay Interpreter Certificate" during a period where ever more Deaf people provided relay interpreting (Boudreault 2005). Full certification was offered in 1998, where a Deaf person who was able to obtain a Certified Deaf Interpreter (CDI) status. Even then, Boudreault notes that the role of a Deaf interpreter was still not fully understood, and that there is not a comparable qualification system in place in Canada. This lack of understanding could be because of a lack of exploration of ghostwriters' roles in the early history of Deaf communities.

Terminology

One of the problems we have then is in using the term "Deaf interpreter". Bienvenu and Colonomos (1992) and Napier et al. (2006) use the term Relay Interpreting and describe this role as being an "intermediary communicator between a hearing interpreter and a deaf client, a deaf presenter and a deafblind client, or a hearing interpreter and a deafblind client." (Napier et al. 2006: 144). This has been felt to simplify the role with Forestal (2005) refering to a time when Deaf interpreters were called intermediary interpreters, with the hearing interpreter remaining the lead interpreter in any given situation. Boudreault (2005) uses the term Deaf interpreters, although he assumes they are also language facilitators or a mirroring interpreter.

Clearly none of these descriptions cover the historic role, Adam et al. (2011) refer to "ghostwriters", i.e., Deaf people performing translation tasks (including interpreting) for other Deaf people. They acted as language brokers for people in a community where not everyone has English (the mainstream language in that context) as a strong second language and the term comes from the community researched. Specifically, Deaf people would bring documents or important letters to the Deaf club and ask another Deaf person to translate, or to ask for a letter to be written in English from sign language (Adam et al. 2011; Forestal 2005). There were also reports of Deaf people accompanying another Deaf person to important personal appointments, including medical, banking and legal situations, to just accompany the Deaf person and tell them what the hearing person said, or to actually speak and lipread for the Deaf person. People were usually not paid for performing these tasks, sometimes a drink would be bought in the bar, or the person invited for a meal, but this was never for money. And so we can see that the role of a Deaf interpreter, as opposed to a hearing sign language interpreter, is varied and can include voicing, gesturing, writing or using other sign languages (Boudreault 2005).

These ghostwriters had other role models undertaking these tasks within their Deaf networks, and they played an important role in presenting the face of their Deaf community to the wider "hearing" (non-Deaf) community. It would seem that in the 21st century the English term, "Deaf interpreter" is probably the one that is most readily understood and yet our historic account shows that a 21st century Deaf interpreter will probably be standing in the footsteps of ther community forebears and undertaking many if not all of the task detailed in Adam et al. (2011).

Even though ghostwriters have been recognised within Deaf communities since at least the mid 17th century the institutional role of the Deaf interpreter

has not always been assured. Egnatovitch (1999: 1) remarks on how hearing interpreters have said that, "certified Deaf interpreters are only there for deaf people with minimal language skills or whenever I need them". The reluctance of some hearing interpreters to acknowledge the place of Deaf interpreters is an example of welfare colonialism exercised by hearing people. Ladd (2003: 17) parallels this with the "destruction and replacement of indigenous cultures by Western cultures", such as the colonisation of Australian Aborigines and comes from a lack of understanding of communites values, histories and habitus. Adam et al. (2011) conclude that: "clearly there is a tension between the choices exercised by Deaf people (the choosing of a Deaf person to interpret for them) and institutional control made manifest either in the choosing of non-Deaf people as interpreters (Stone and Woll 2008) or in the deployment of welfare workers to publicly display their expertise".

It is important to recognise that historically, when a Deaf community has been realised by Deaf people coming together and forming a minority language community, Deaf people have undertaken language brokering, translation and interpreting and they still do. This is new to some, but not new to Deaf people in recent history or more long-term history. Careful reading of our histories enables us to have greater perspective on the questions we ask, the frameworks we use and the methodologies we apply. The historical lens is a useful too for us to apply to our research and to the development of our profession.

Conclusion

We have described the development of the Deaf community and historical documents that give us a clearer understanding of the types of language brokering that occurred in the early history of some Deaf communities. We have shown how in many communities, not just the Deaf communities, many translation and interpreting acts are hidden by the overt portrayal of events as monolingual. We have shown that to understand the current situation of the sign language interpreting profession and the emerging profession of Deaf interpreters a historical lens is vital. Finally, we argue that it is essential that people from within the Deaf community play an active role in understanding this current situation; using a subaltern history approach gives us a greater understanding of the historical and cultural aspects of the interpreting and translation field and enables us to see that what may appear new to us is just the tip of a historic iceberg.

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Bimodal bilingual interpreting in the U.S. healthcare system

A critical linguistic activity in need of investigation

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Legislation guarantees communication access in the United States healthcare system for deaf citizens and this access is often made possible by bimodal bilingual interpreters, individuals fluent in spoken and signed languages. Yet there is a conspicuous lack of research on interpreted discourse in this setting. With the exception of research on mental health interpreting, not a single article investigating the practice of bimodal interpreting in the U.S. healthcare system has been published in a refereed journal, although interpreters work in healthcare with increasing frequency. This article examines this deficit in research, beginning with a review of the diagnostic benefits of language access in healthcare settings. Next, the demand for bimodal interpreting is examined in light of historical factors, legislative mandates, and linguistic research on American Sign Language. The lack of scholarship in bimodal interpreting and the potential impact of developing a specialization in healthcare interpreting are discussed. Finally, with the view of interpreting as an applied linguistic activity, critical research questions about interpretation between deaf and non-signing interlocutors in the healthcare setting are provided.

Introduction

It has been said that the essence of applied linguistics is the observation and analysis of real-world language problems with the aim of devising practical solutions (Cook 2003; Davies 1999). This chapter addresses the lack of evidence-based research on the practice of bimodal bilingual interpreting in the U.S. healthcare system. *Bimodal bilingual interpreters* are individuals who are fluent in two languages having distinct phonologies that are expressed by different articulators (Emmorey, Borinstein, Thompson and Gollan 2008). Thus, bimodal bilingual interpreters work between a spoken language (i.e., perceived by the ears and produced by the

vocal tract) and a signed language (i.e., perceived by the eyes and produced by the hands, face, and body). In contrast, *unimodal bilingual interpreters* are individuals who interpret between languages that share the same modality and use the same articulators (e.g., two spoken languages).

The goal of bimodal interpreters is essentially the same as that of unimodal interpreters; that is, to create a communication experience that is as equivalent to direct communication as possible. Communication is achieved by relaying the meaning of the message being conveyed by the interlocutors, including inferential information. Both bimodal and unimodal interpreters must be skilled in using a range of registers and dialects to accommodate the needs and preferences of the interlocutors involved in the communication exchange. Additionally, they must demonstrate versatility in meeting the challenges that arise from working in diverse linguistic situations and institutional structures (e.g., educational, vocational, and healthcare settings).

Arguably, the similarities between unimodal and bimodal interpreters are greater than the differences; however, one notable difference between the groups is the critical lack of research on bimodal interpreting in healthcare settings. The fundamental problem we explore in this paper is not with the provision of interpreting services; rather, it is *the persistent lack of evidence-based research on the practice of bimodal interpreting in the U.S. healthcare system*. We confess a degree of discomfort in using the word "problem'" in relation to bimodal interpreting since, as linguists, interpreters, and interpreter educators, we regard interpreters as a part of the *solution* to cross-linguistic communication, rather than as "the problem." Certainly, for deaf and hearing people who wish to communicate but do not share a common language, bimodal interpreters frequently provide the most effective means for communication access between the interlocutors. However, the lack of a solid research foundation in the critical arena of bimodal healthcare interpreting is a problem that warrants both attention and action.

It is worth noting that our focus in this chapter is research on interpreting that addresses physical healthcare rather than mental healthcare. Physical and mental healthcare certainly have areas of overlapping concern; however, mental healthcare carries with it special considerations and may be regarded as a distinct specialty in healthcare interpreting.

We begin this chapter with an overview of how healthcare is accessed through unimodal and bimodal interpretation. We then discuss the body of research in umimodal healthcare interpreting and the comparative lack in bimodal healthcare interpreting. To examine bimodal healthcare interpreting within its appropriate frame, we then turn our focus to the deaf population in the United States and the legislative mandates that have affected language access. Factors that created a 'culture of practice' among bimodal interpreters are analyzed. This is followed

by a proposal for the development of a specialty in healthcare interpreting, which we argue, could stimulate research that would ultimately support practice. Finally, key research questions on bimodal interpreting in the healthcare setting are proposed with the argument that, despite commonalities with unimodal interpreting, there are distinct aspects of bimodal interpreting that warrant specific investigation.

Healthcare access through unimodal and bimodal interpretation

Language access is crucial in the healthcare setting for both its communicative and economic benefits. Research suggests that the ability of a healthcare provider to communicate accurately with a patient is one of the most effective and least expensive tools in diagnosing and treating patients (Lichstein 1990). In recent years, however, the number of non-English speaking patients in the U.S. healthcare system has expanded rapidly and healthcare organizations face enormous challenges in accommodating an increasingly diverse patient population. According to the U.S. Census Bureau, approximately 47 million people speak a language other than English. In addition, the National Institute on Deafness and Other Communication Disorders reports there are now approximately 36 million people with a hearing loss in the United States (NIDCD 2010).[1] The rapid growth of individuals who may not readily access spoken English, along with evidence demonstrating the importance of interpreters in the accurate diagnosis and treatment of patients, has caused organizations such as the U.S. Joint Commission[2] to enact policies regarding the education, certification, and use of healthcare interpreters.

Healthcare interpreting is a subset of work that falls within the broader domain of *community interpreting*. Originally overshadowed by the high profile work of conference interpreting,[3] there is increasing attention being given to both the work of interpreters in the community and the parameters that define this

1. The number of deaf people who use signed language is difficult to determine since no exact census figures exist (Padden and Humphries 2005).

2. The Joint Commission, formerly the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), is a private sector, not-for-profit organization based in the United States. The Joint Commission operates voluntary accreditation programs for hospitals and other medical organizations and accredits over 17,000 healthcare organizations and programs in the United States.

3. Conference interpreters first become widely recognized for their work at the 1945–46 Nuremburg Trials (Gaiba 1998). Among other high stakes settings, conference interpreters have played a crucial role in the diplomatic work at the United Nations (Baigorri-Jalón 2004).

context. Community interpreting is typically smaller in scale than conference interpreting; for example, instead of interpreting for a large group attending a conference, a community interpreter tends to work in smaller interactive environments. These environments tend to be conducted in a dialogic manner in such structured systems as hospitals, classrooms, courtrooms, or the workplace. The demand for unimodal and bimodal interpreters in these community settings is growing, particularly in countries, such as the United States, that have a rapidly expanding number of ethnic minorities.

Healthcare interpreting encompasses a range of medical situations as diverse as medical interviews, emergency room visits, in- and out-patient services, and healthcare education. Interpreting in the healthcare setting can be either highly predictable (e.g., a routine well-baby exam) or physically and emotionally challenging (e.g., an emergency department visit or unexpected test results). To interpret in the healthcare setting, both unimodal and bimodal interpreters need insight into the linguistic, social, and cultural influences that impact healthcare interactions; an awareness of communication dynamics (e.g., power and prestige of the interlocutors, triadic communication); the ability to balance the need for maintaining professional distance with empathy and flexibility; knowledge of the general physiological and psychological aspects of healthcare; a grasp of diverse healthcare approaches (e.g., Chinese, Ayurvedic, holistic, homeopathic, traditional); an understanding of the underlying practices of various healthcare delivery systems; and the role of self and others on the healthcare team (CATIE Center, College of St. Catherine and NCIEC 2008). Among unimodal interpreters, healthcare interpreting has been identified as a specialty area and efforts to address certification and training are well underway. Conversely, bimodal interpreters have yet to address the issues specific to healthcare interpreting in an organized manner, and few advances have been made towards a specialization in this area.

The term *healthcare interpreters* should not be taken to imply that there is an organized collective of bimodal interpreters who specialize in this setting. In bimodal interpreting, the term "healthcare interpreter" is used to refer to a wide range of practitioners with a diverse set of skills and experiences interpreting in healthcare settings, ranging from individuals who interpret an occasional medical assignment to those who dedicate their working hours specifically to the setting.

Although the degree of professional involvement varies considerably between practitioners, bimodal bilingual interpreting in healthcare settings takes place hundreds of times everyday across the United States. The most frequent situation encountered is that of English-speaking healthcare providers who need to conduct medical consultations with signing deaf patients. This presents a real-world problem for both the provider and the patient. Upon closer examination, there

are several variations of this scenario. For example, interpretation may be needed when deaf parents take their hearing infant to the pediatrician, or when hearing parents take their deaf teenager to a clinic for a checkup. Another example of a complex linguistic scenario is that of hearing immigrant parents with limited proficiency in English who are seeking immunizations for their deaf child who has learned American Sign Language in school. Further, the traditional roles of hearing physician and deaf patient are now being reversed by the small but increasing number of deaf physicians who regularly use interpreters in their practice when treating hearing patients (Moreland, personal communication, January 2010).

These diverse scenarios illustrate the growing need for bimodal interpreters in a healthcare arena that is increasingly complex. As the demand for bimodal interpreting services continues to grow and the linguistic challenges become more complicated, the need for further study of this practice becomes crucial. However, at present, the urgent need for interpreting service in healthcare has overshadowed the need for research in this area.

Research on healthcare interpreting

As stated earlier, unimodal interpreters have recognized the specialized nature of healthcare interpreting and are actively addressing certification. Evidence of their commitment includes the establishment of state and national organizations specifically for healthcare interpreters; the availability of conferences that bring together healthcare interpreting practitioners, educators, service providers, and researchers; the offering of intensive on-site courses at the Monterey Institute, and a growing number of articles on healthcare interpreting in peer-reviewed publications (Angelelli 2004). A growing body of research on interpreted interactions between English-speaking healthcare providers and limited-English proficiency (LEP) patients has been studied from a variety of perspectives (see for example Elderkin-Thompson, Silver and Waitzkin 2001; Leanza 2005; Wiking, Saleh-Stattin, Johansson and Sundquist 2009). Publication of evidence-based research on unimodal healthcare interpreting has played an important role by advancing the knowledge and education of spoken language interpreters who work in the healthcare industry. In contrast, research literature on bimodal bilingual interpreting in healthcare settings is severely lacking despite the fact that signed language community interpreters have been professionalized longer than spoken language community interpreters.

An examination of publications reveals the disparity in research between unimodal and bimodal interpreters in the healthcare system. The authors conducted a systematic literature search of English-language, peer-reviewed publications

(through the year 2009) on bimodal interpreting in healthcare. The search included four databases: Linguistics and Language Behavior Abstracts (LLBA), Pub-Med, PsycINFO, and Social Services Abstracts. The search terms used were "interpreter/interpreting," "sign/signed language," "deaf," "United States/U.S.," and "medical/healthcare." Although related articles were found, not a single article was published in a refereed journal that addressed the specific practice of bimodal interpreters in the U.S. healthcare setting.

The majority of the resources found in bimodal interpreting specifically related to healthcare interpreting are best described as practical or introductory in nature, rather than advancing a theoretical model or framework about healthcare interpreting. The resources may be categorized as follows: (a) books that contain chapters or short sections on bimodal interpreting in the healthcare setting (Frishberg 1990; Humphrey and Alcorn 2001; Solow 1981; Stewart, Schein and Cartwright 1998); (b) publications from professional organizations, such as newsletter articles, papers in conference proceedings, or standard practice papers (e.g., RID.org); (c) informational and organizational websites (e.g., DeafMD.org, healthcareinterpreting.org); and (d) non-print educational and training resources such as DVDs and CDs (e.g., stkate.edu/offices/ academic/interpreting.nsf/pages/ cd_roms). These resources are primarily produced by and for practicing interpreters and, judging by their popularity, indicate that practicing interpreters, students and educators are seeking information on healthcare interpreting.

While these publications and websites serve a worthwhile purpose, there is a pronounced lack of empirical research on healthcare interpreting to inform the work of bimodal interpreters and to guide the development of interpreting students. There has been research in refereed journals on related topics, such as surveys of deaf patients' experiences within the healthcare system (O'Hearn 2006) and the health literacy of deaf patients (Margellos-Anast, Estarziau and Kaufman 2006). A limited number of scholarly works on bimodal healthcare interpreting exists (see Metzger 1999 and Sanheim 2003); however, further study by other researchers has gone unfulfilled. As informative as these sources may be, bimodal interpreters are in need of a body of empirical research specific to the practice of interpreting in the U.S. healthcare system.

Conducting research on interpreting is by no means an easy venture (see Gile 2000 for a review of issues) and it is made more difficult in the healthcare setting (See Metzger and Roy, this volume). First, an individual's healthcare is generally a private affair, making it difficult to obtain authentic linguistic data. In contrast, settings such as legal and educational have more opportunities for observation, as well as layers of informal and formal monitoring within the institutions. For example, the work of an interpreter in a public school may be observed

by a colleague, a supervisor, the classroom teacher, the parents, and the principal; but the healthcare setting has built-in privacy protections for patients, and consequently, there are scant opportunities to observe interpreters. In part, it is this inherently private nature of healthcare that causes the reticence of bimodal interpreting researchers to pursue video-recorded data collection in healthcare settings, a factor in the paucity of authentic data. Additionally, the variety of approaches, services, settings, and the diverse population of healthcare consumers make generalizing any research findings a thorny issue for researchers.

Language modality also plays a role in how research is conducted in unimodal and bimodal interpreting. Unimodal interpreting researchers can audiotape the spoken interaction between doctor and patient and, for many spoken languages, conventional transcription systems have been developed. The benefit of having a uniform transcription system has served to advance research on spoken language data. Conversely, in bimodal interpreting, researchers must videotape the interlocutors to create a linguistic record. Further, ASL does not have a standardized written form or a conventional transcription system, posing additional problems for coding and analysis. Additionally, at the present time, no database or corpus of bimodal interpreted healthcare interactions (i.e., transcripts, videos) is currently in existence.

The deaf population in the United States

Bimodal healthcare interpreting cannot be adequately framed without grounding it within the context of the U.S. deaf community and the recognition of ASL as a language. Deaf people are active members of U.S. mainstream society and participate in endeavors as diverse as the Peace Corps (Swiller 2007) and popular television programs (e.g., Marlee Matlin on The West Wing). Out of the approximately 28 million deaf and hard of hearing people residing in the U.S., the estimated percentage of people using ASL as their primary language ranges from 100,000 to 300,000 individuals, making it a language of limited diffusion. Similar to many other minority language users in the U.S., deaf citizens are surrounded by English in their daily lives at work, school, and recreational activities, and thus negotiate with mainstream society through their non-native language while using ASL as their primary means of communication with other ASL users.

Many deaf individuals consider themselves members of a linguistic and cultural group, while mainstream society often views deafness from a disability perspective (Obasi 2008; Padden and Humphries 2005). Deaf people constitute a distinct bilingual minority in the United States; however, there are differences from other bilingual language minorities in spoken languages. Notably, spoken

language bilinguals are able to access the majority language through hearing and can acquire it to varying degrees, but deaf people rarely acquire spoken language through exposure, since they cannot fully access the auditory signal. Many deaf people access English in its written form, but ASL remains their most accessible and comfortable language for communication. In fact, it has been said that the use of ASL is the most central aspect of being deaf. As described by Kannapell (1980: 112) "ASL has a unifying function since deaf people are unified by their common language. It is important to understand that ASL is the only thing we have that belongs to deaf people completely."

American Sign Language is a visual-spatial language that is composed of linguistic units that use the hands, arms, eyes, face, head, and body as articulators and constructs meaning from various handshapes, locations, and movements. ASL is independent of and quite distinct from English in phonological, morphological, and syntactic domains (see Emmorey 2002 for a review). Notably, the phonological features of ASL are produced manually rather than orally (Brentari 1998; Corina and Sandler 1993). English and ASL also differ dramatically with respect to how spatial information is encoded. For example, ASL encodes locative and motion information with classifier predicates (Emmorey 2003), while English expresses locative information with prepositions, such as *in, on,* or *under*. A complete comparison is not possible within the constraints of this article; suffice it to say that English and ASL have very distinct language structures (Padden 1988).

Signed languages were not recognized to be true languages until the latter half of the 20th century, although they had been used in the U.S. since at least 1817 when the first school for the deaf in the U.S. was founded. The change in understanding of signed languages was prompted by the groundbreaking work of a professor at Gallaudet University, a liberal arts college for deaf students in Washington, DC. Based on observation and analysis of his deaf students' signing, William Stokoe published a monograph in 1965 that for the first time described ASL as a fully developed language, a premise that was mostly ignored, and sometimes ridiculed, by the larger academic community (Maher 1996). In time, they came to understand that Stokoe was right – that ASL is a highly structured language with a grammar that is much different from spoken English.

It is now widely acknowledged that signed languages are able to convey ideas, information, and emotion with as much range, complexity, and versatility as spoken languages. By the late 1980s, ASL courses were becoming more common in high schools and colleges (Wilcox and Wilcox 2002), thus influencing the language development of future interpreters. Additionally, in 2006, ASL was identified as the fourth most frequently taught language in colleges and universities in the United States (Furman, Goldbert and Lusin 2007). As deaf individuals slowly began to develop a collective identity as a linguistic minority in the 1960s, the

U.S. civil rights movement was also gaining momentum and legislation was being enacted to protect the rights of various minority groups, including deaf people.

Legislative mandates affecting language access for U.S. deaf citizens

Starting in the 1960s the passage of three major laws had a dramatic impact on both the everyday lives of the deaf community and the working conditions of bimodal interpreters. Some of the earliest legislation mandated services and prohibited discrimination for deaf individuals in the workplace[4] and, as a result, deaf people became employed or promoted in positions and vocations from which they were previously shut out. These new legislatively mandated protections created an atmosphere in which the need for qualified interpreters was recognized as a necessary practice to provide access in the workplace, and thus the demand for interpreters grew exponentially.

In 1975, the passage of the Education of Handicapped Children's Act[5] provided the right for deaf children to attend their neighborhood public school, rather than a residential school specifically for deaf students and necessitated the hiring of interpreters in thousands of public schools across the nation. The passage of the Americans with Disabilities Act (ADA) in 1990 provided new access to employment, transportation, public accommodations, and public services for people who qualified as disabled. Under Title IV of the ADA, equal access to telecommunications was mandated, which resulted in an enormous demand for interpreters as video interpreting centers proliferated across the country (Peterson, this volume).

Crucially, because of state or local government funding, healthcare providers are included under Title II of the ADA. Further, they are regarded as "public accommodations" covered by Title III of the ADA, or federally funded programs, or activities covered under Section 504 of the Rehabilitation Act. As such, hospitals, doctors' offices, clinics, and other entities that provide healthcare services must make modifications to serve members of the public with disabilities, including the use of interpreters for communication access.

Each of these legislative mandates had an enormous impact on the lives of deaf people for accessing institutions in American society and escalated the demand for interpreting services, including access to healthcare settings. Despite these laws however, the demand for bimodal interpreters frequently goes unmet.

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4. Specifically, the laws are The Vocational Rehabilitation Amendments of 1965 (P.L. 89–333) and the Rehabilitation Act of 1973.

5. The current iteration of this law is titled The Individuals with Disabilities Education Act (IDEA).

The following story told by a 51-year-old deaf woman illustrates the fragile communication situation that can occur in healthcare settings, when no professional interpreter is present.

> I remember the time before there were professional signed language interpreters. Back then, if a deaf person went to the doctor or the hospital, a hearing family member had to go along to interpret. Unfortunately, that still happens today and not only to hearing family members. Three years ago, I interpreted for my deaf sister in the hospital – even though I am deaf myself. My sister had been diagnosed with Stage IV breast cancer and was in the hospital to receive chemotherapy for metastasized cancer in her brain. No interpreter was available to interpret for the procedure, but it had to be done immediately since my sister was very sick. Although I am deaf, I can lipread well, so I offered to try interpreting for the doctor during the procedure. I remember at one point, the doctor explained something to my sister, but I couldn't understand what he said. Even after he repeated it several times, I still couldn't lipread what he was saying. Finally, I asked him to write it down, but he just said, 'Oh never mind.' and kept talking. I was very close to my sister and was afraid that I had missed important information. She passed away less than a year after her diagnosis, and I always wondered if I missed telling her critical information. My sister didn't have interpreters for many of her treatments or consultations because they were often unscheduled and happened at the last minute. I did the best I could to interpret when I was there.[6,7]

This story is significant for what it reveals about the difficulties that deaf individuals face in the healthcare system when professional interpreters are not available to fulfill legislative mandates that were enacted beginning in the 1960s.

A confluence of factors has resulted in the demand for bimodal interpreters that is still unmet today. As a result of societal shifts, there has been an urgent call from deaf individuals, deaf advocacy organizations (e.g., the National Association of the Deaf), and the federal government to increase the number of qualified bimodal interpreters. Interpreters are needed in all segments of public and private life, but crucially 78% of deaf people identify the healthcare setting as the most important system for them to access; 52% identify healthcare settings as the most difficult for which to attain interpreting services (National Consortium for Interpreter Education Centers 2008b).

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6. With gratitude to Lucinda O'Grady Batch for sharing her experiences of interpreting for her sister. Her story was told in ASL, and the English translation, created by the authors, was approved by Ms. Batch.

7. Both deaf and hearing people can become certified, professional interpreters. Many untrained family members (deaf and hearing) interpret in family situations.

The response to meeting the demand for interpreting is understandable, but the balance of time, energy, and money has been on producing more and more interpreters without serious attention given to the research of teaching and interpreting practice. We suggest that these demands have led to a "culture of practice" in bimodal interpreting, a culture in which much-needed scholarship is, at best, an afterthought, rather than foundational to the field.

Bimodal interpreting as a "culture of practice"

In order to understand the lack of scholarship in bimodal healthcare interpreting, it is instructive to start with an examination of the field of bimodal interpreting in general, where the lack of research is also apparent, although not as profound as in the specific area of healthcare. As stated earlier, one of the most pervasive tensions in the interpreting profession is the balance of demand and supply. The demand for bimodal interpreting services has always outpaced the supply of available practitioners, and consequently, federal funding has primarily been directed at increasing the number of available practitioners, not on research and development. As a result, we contend that the field has adopted and maintains a "culture of practice" rather than a "culture of scholarship." Although the need for research has become more evident to practitioners and educators alike in recent years, there has yet to be a surge in this direction.

The establishment of bimodal interpreting as a profession was a result of both linguistic research and legislative mandates described in earlier sections. Prior to the mid 1960s, the field of bimodal interpreting did not exist in the United States. Friends or family members of deaf people would occasionally serve as volunteer "interpreters" but the work of transferring meaning between languages was not regarded as professional practice or an area for scholarly investigation. Community interpreting, both unimodal and bimodal, was under-valued and under-recognized for many years, often not viewed as an activity that required a high level of linguistic, cognitive, ethical, or interactional competency.

In the mid- to late seventies, newly enacted legislation mandated communication access for deaf citizens but did not provide funding to create an infrastructure that could meet the demand. There was a scramble to create training opportunities and by 1980, over 50 interpreting training programs had been established in the United States (Cokely 2005).[8] However, because the laws requiring

8. The National Consortium of Interpreter Education Centers reports that, in 2010, approximately 145 associate, bachelor, and master degree interpreter education programs are in existence in the U.S. (http://www.nciec.org/projects/aa2ba.html).

interpreting services were enacted before almost any research on interpreting or interpreting education had been conducted, the field emerged without a strong foundation to support practice or education.

This laudable goal of meeting the immediate needs of the deaf community has resulted in a lack of academic rigor in bimodal interpreting. There are several intertwined root causes for this; one of the most significant is the dearth of PhD-prepared researchers in interpreting, linguistics, applied linguistics, or communication studies. In a survey of full-time interpreter education faculty (National Consortium of Interpreter Education Centers 2008a), only five out of 85 respondents had a PhD. Graduate study in signed languages and in signed language interpretation is a relatively recent development and, at present, no doctoral degrees are currently granted in signed language interpreting in North America.[9]

In the early years of the field, colleges and universities may not have seen bimodal interpreting education programs as having long-term viability. Rather, the view may have been that these programs would be temporarily available to fill a void in the workforce and be dismantled when the need was met. Hence, focus was not given to producing research that could guide the development of a promising new discipline.

Compounding the challenges bimodal interpreting faces in academia is the inconsistent placement of interpreter education programs within institutions of higher education. Due to political and pragmatic factors, the appropriate home for bimodal interpreting programs is still not standardized. Although translation and conference interpreting have long been recognized as linguistic activities, the practice of bimodal interpreting is still viewed differently, as evidenced by its placement within departments of special education, speech and hearing sciences, or deaf education. With notable exceptions, programs are rarely located in linguistics, applied linguistics, or educational linguistics departments, although these would be a logical placement for language-focused coursework.

Other factors related to the position of interpreting within the university system affect the scarcity of scholarship in bimodal interpreting. First, there is lack of agreement in the field regarding the academic discipline that would best prepare individuals for full-time faculty positions in interpreting departments at colleges and universities. This may stem from how the field evolved, with the first interpreter educators coming from the ranks of practitioners, without necessarily having completed advanced study. As a result, most interpreting faculty positions are not tenure track and typical job postings advertise for applicants holding a master's degree in a "related field." This lack of specific qualifications results in an

9. A notable exception is the Interpreting Department at Gallaudet University where a doctoral program in Interpreting was initiated in 2010.

assortment of degrees held by interpreter educators – degrees that may or may not be related to interpreting.

Without a recognized discipline specific to interpreter educators and with few opportunities for tenure track positions, the majority of interpreter educators do not choose to pursue doctoral studies. The few that do so, despite the lack of incentives, find that they are often studying in isolation – the lone graduate student interested in interpreting, taking programs that do not quite fit their needs and lacking colleagues who can critique their work or collaboratively build a body of knowledge.

A confounding factor is the type of degrees available for students who want to become interpreters. After the provision of bimodal interpreters was mandated by law, the initial placement of interpreter education programs was in vocational, technical, or community colleges. Presently, more than 30 years after the first interpreting programs were created, approximately seventy-five percent (75%) of the 145 identified interpreter education programs are offered at the associate degree level and housed in two-year institutions (National Consortium of Interpreter Education Centers 2008c). Even today, with bimodal interpreting programs shifting from the associate degree level to the baccalaureate degree level, the emphasis for faculty in many programs is on teaching, with little or no expectation of producing and publishing research.

The lack of research by bimodal interpreting faculty, many of whom are part-time, also influences students, who may not have opportunities to be research assistants or co-authors with their professors. Further, the limited number of books available for use in most interpreting programs are not well-grounded in research, with only a handful of introductory texts and even fewer that might be considered advanced or in-depth. Instructors may incorporate textbooks, papers, and edited collections from other disciplines in their teaching, but a void exists in research-based texts in bimodal interpreting. Without the expectation for undergraduate students to be grounded in theoretical foundations and without various opportunities for future research, a culture of scholarship is not cultivated in bimodal interpreting.

All this is not to say that the profession should diminish its focus on the fundamental nature of its work, that is, to provide communication access between deaf and hearing people. The vast majority of interpreters will spend their entire careers performing this vital language service. However, we do argue that, as with other practice professions (e.g., nursing and social work), practice is both elevated and honored by being firmly grounded in research and scholarship. Further, we contend that to achieve a culture of scholarship, academic institutions must examine their programs' location within the college or university, hiring practices of interpreter educators, expectations for faculty research, designated teaching

loads, opportunities for student scholarship, and conduct a regular review of program curricula and textbooks.

In sum, a confluence of factors has led to a situation in which the discipline of bimodal interpretation is experiencing a "lack of coordinated basic research that can inform the practice of interpreting" (Cokely 2005: 16). In the following sections, we urge action in the pursuit of research in the area of bimodal healthcare interpreting by first examining the potential ramifications of developing a specialization in healthcare interpreting and then by discussing how it may serve as the catalyst to ignite scholarship in this area.

Specialization as a path to research

The development of a specialization in healthcare interpreting within bimodal interpreting could play a critical role in the propagation of research in this domain. Specialists are practitioners who have advanced education, specialized knowledge, and experiences that distinguish them as being uniquely qualified for work in a particular setting. The development of a specialization requires both a perceived need for a designated service that requires a specific set of skills, as well as a supply of individuals interested in becoming specialized in that area.

The evidence of the need for healthcare interpreters has been advanced in prior sections; there is also an expressed interest by bimodal interpreters in becoming specialized in healthcare interpreting. In one study, 54 working interpreters across eight states were interviewed about their experiences in healthcare interpreting (CATIE Center, College of St. Catherine and NCIEC 2007). The interpreters were asked whether they "see a need for a specific advanced education in medical interpreting." Among the responses, 60% responded "yes" to the proposal of establishing of a post-baccalaureate certificate. The interpreters were also asked to provide reasons for advanced education in healthcare interpreting and a sample of the responses is provided below:

- There can be serious consequences to a deaf person's life or health or that of their children if there is not a qualified interpreter.
- Without understanding, a lot of false assumptions are made.
- Healthcare is high stakes interpreting and we can never be too prepared.

At present, healthcare interpreting has not been formally identified as an area of specialization by the Registry of Interpreters for the Deaf (RID), the national organization in the U.S. for bimodal interpreters. In considering the purpose and focus of RID, the lack of focus on specialization can be understood, particularly in the early years of the profession. In the face of great need, having a critical mass of

generalist practitioners was in the interest of the community whose communication needs in legal, educational, healthcare, and work settings had long been underserved. As a result, the first wave of professional interpreters was called upon to work in almost every setting. As the number of interpreters grew, however, the field was able to establish areas of specialization within the field. The high-stakes venues of legal and educational interpreting received priority within the field, resulting in recognized specialties with certification.

Given that communicative access to healthcare raises both public health concerns and quality of life issues, we argue that healthcare interpreting can no longer be regarded as a low priority. Across age, gender, education, socio-economic status and ethnicity, all deaf citizens need access to healthcare services. While the majority of deaf people will have little, if any, contact with the legal system, every deaf person will have contact with the healthcare system, both for themselves, as well as for their family members.

Interpreting in healthcare settings is often physically and cognitively demanding, stressing the linguistic, ethical and emotional limits of the practitioner. Further, as outsiders without specialized status or training, the health and safety of interpreters is at risk of being compromised. This level of challenge is common in many practice professions; the difference is that in other demanding fields, specialized education and credentials are required. Without such standards, under-qualified interpreters will continue to work in this setting, compromising the health and well-being of deaf patients.

Suffice it to say, the case for specialization in healthcare interpreting warrants further attention. We extend the idea of specialization to the impact that it may have on the development of research. First, a specialization of interpreting in healthcare will require that interpreter educators design and implement advanced preparation programs, both of which require research. On another level, we suggest that as interpreter practitioners seek to engage in specialized practice they become increasingly vested in the work. The insights of interpreters who are dedicated to healthcare and are examining their own performance critically will logically lead to opportunities for action research within their employment settings. We argue that of the interpreters who have the opportunity to be credentialed and educated as specialists, a few will ultimately chose to advance the specialty by becoming administrators, educators and crucially, researchers.

Although an in-depth discussion of specialization is beyond the scope of this article, the position taken here is that, in addition to other benefits, specialization can play an important role in creating a body of research about bimodal interpreting in the U.S. healthcare setting. With recognition from the field as a specialty, more healthcare facilities may be convinced of the need to hire interpreters with specialized education and credentials. Further, specialization will require changes

in the education of subsequent generations of interpreters who choose to practice in this setting. Finally, specialization may provide interpreters, researchers, deaf consumers and healthcare providers with a more powerful voice to negotiate for better communication access within the healthcare system.

A call to action: Research questions

Over time, the complexity of healthcare interpreting and the legal, social, ethical, emotional and cognitive implications of the work have become apparent. Many questions on a practical and theoretical level have been raised but remain unanswered, making the field ripe for research. We suggest that interpreting researchers, deaf consumer organizations, national interpreting organizations, and interpreting education programs should set and prioritize a research agenda in bimodal healthcare interpreting, with a potential outcome that this practice would become a recognized specialty. This should not be done in isolation, but in collaboration with other entities and disciplines, including educators, researchers and practitioners in unimodal healthcare interpreting, deaf and hard-of hearing healthcare providers, sociologists, and linguists.

Areas in need of investigation include the efficacy of healthcare communication mediated by a bimodal interpreter, especially as it applies to the specific language needs of specialized populations in the healthcare setting (e.g., patients who are deafblind, deaf immigrants and refugees, and elderly deaf patients with limitations including aphasia, vision loss, or severe arthritis in the hands and arms). A rich area of investigation is the role and boundaries of healthcare interpreters, particularly in highly charged settings or in situations with extreme power imbalances. A largely untouched area of research is the role and function of interpreters who themselves are deaf, as well as deaf community healthcare workers, and how these professionals interface with hearing interpreters in the medical interview. Research is needed on delivery means, particularly the efficacy of using interpreters in remote locations via video. Finally, direct communication in the healthcare setting could be studied through the observation of deaf physicians treating deaf patients, which may result in identifying strategies for more effective interpretation in healthcare settings.

Although the need for research in healthcare interpreting is crucial, there are important considerations to such investigations. Questions that warrant further deliberation include: Are organizations and educational programs prepared to incorporate research findings into their education and advocacy work? Is there any possibility that research findings would make language access to

healthcare more difficult for deaf people; for example, by advocating for higher educational standards and credentials for interpreters, would the cost of interpreters increase and fewer be hired? Or, conversely, would interpreters choose to continue to work as generalists and the requirements of a specialty decrease the number of available interpreters in healthcare even more dramatically? Is the field of bimodal interpreting still too small to have a specialty in healthcare interpreting? Have we reached our limits of specialization with educational and legal professionals? Would specialization further atomize an already divergent field of practitioners?

Even with these unanswered questions, so little is known empirically about healthcare interpreting, the logical next step is to take action – both in terms of research and the pursuit of recognition of bimodal bilingual healthcare interpreting as a recognized specialty.

Conclusion

A recursive theme of this article is that of "lack" – the lack of research on bimodal interpreting overall and the specific lack of research on healthcare interpreting, the lack of a specific academic home for interpreting, the lack of requirements for advanced degrees for interpreting faculty, the lack of an expectation of faculty to produce research, the lack of a long-range vision for interpreting, and the lack of research opportunities and guidance for interpreting students. A strong research foundation for interpreting and interpreting education has not developed because the field has historically been driven by a desire to react to new legislation or to quickly meet the demand for the number of practitioners needed.

These challenges are certainly not unique to the field of bimodal interpreting, nor are they unsolvable. But, to find a solution will require a shift in thinking and assumptions. The field of bimodal interpreting has already challenged many assumptions in the last 40 years and progress has been made. We now understand that legitimate languages can be either spoken or signed; that deaf people who use ASL are a linguistic and cultural minority group; that citizens who do not speak English, including deaf people, have rights to communication access in health, legal and educational settings; and that community interpretation is a complex process, worthy of scholarly investigation, as well as specialized professional practice.

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Index

A
abductive 17
access to education 39
access to the judicial system for Deaf consumers 31
accreditation 154, 158, 243
achievement testing 154–155, 171–172
action research 140
Adam 225
American Sign Language (ASL) 19, 60, 142, 216, 235, 241, 245
Americans with Disabilities Act 249
Amsterdam Manifesto 193
Angelelli 8, 21, 22, 61, 123, 171
anthropology 6, 9
applied research 182
appreciative enquiry 140
assessment of student interpreters 153, 154
attitude 172
authenticity 159, 169

B
Becker 80
Berk-Seligson 61, 89, 112
bilingual 227, 229
bilingual community 227
bimodal bilingual interpreters 241–246, 249–250, 253–254, 256
biographies 185
blended learning 183
Block, Schaffner, and Coulehan 61
Bologna process 154, 161, 180
British Sign Language 193
Butler 63

C
call ownership 218
camera angles 67
Canadian Association of the Deaf 206
Canadian deaf children 32
Canadian legal systems 42
Canadian Network for Inclusive Cultural Exchange 207
case study 7, 8, 21, 88
CDI (Certified Deaf Interpreter) 235
Chesterman 8, 12, 13, 15, 16, 17
coding 73
collaborative approaches 184
colonial America 229
Common European Framework of Reference for Languages (CEFR) 164
communication assistant 199
community interpreting 86, 122, 179, 244
conceptual analysis 16, 17
conduit model 190, 206
conference interpreting 86, 179, 244
consecutive interpreting 30, 97
consent forms 63
constructivism 12, 13, 15, 16, 18, 22
content analysis 88
content validity 99
convenience sample 98
corpus 247
correlational statistics 99
correlational studies 96
court interpreting 86
covert interpreters 234
creative thinking 188
Creswell 18
criterion 156
criterion based testing 156
critical introspection 166
critical rationalism 12, 17
critical thinking 188
cultural capital 230, 235
cultural turn 167
culture of practice 251
culture of scholarship 251

D
Deaf community 62, 172, 225, 227, 230
Deafhood 229
Deaf interpreters 228, 233–237
deaf population in the United States 247
deaf translation norm 230
Deaf witnesses in court settings 31
deductive 17, 18
defensive interpreting 189
dependent variables 102
descriptive method 96
descriptive quantitative studies 96
descriptive statistics 96
Dilthey 11, 12, 15, 16
Diriker 7, 20
discourse analysis 87
discourse community 189
discourse features 33
distance learning 181
Dublin Descriptors 162

E
Education for All Handicapped Children Act 249
Ehlich 71
ELAN 73
empowerment 185

epistemology 10, 12, 13, 14, 15, 18, 22
equal status 227
ethnographic study 232, 234
ethnography 8
European Credit Transfer and Accumulation System 181
European Higher Education Area 180
European Language Portfolio (ELP) 164
European Union 180
experimental research 19, 21, 22
external validity 93
extrinsic factors 170

F
factorial design 102
Federal Communications Commission 199
fieldwork 15, 19, 20
filming 61, 67
first-level training programs 178
fitness to practice 154, 172
focus group 89
footing 78, 91
forms of address 90
functional equivalent 206

G
Gaelic 226, 228
ghostwriters 232, 233, 234, 235, 236, 237
Gile 7, 10, 11, 17, 19, 28, 86, 97, 122, 125, 129, 134, 139, 164, 167–168, 192, 246
Goffman 78
Goodwin 62
grounded theory 17, 88
guided self-reflection 167

H
habitus 230, 237
Hale 8, 21, 22, 61
healthcare interpreting 86, 244, 254
hermeneutics 11, 88, 95
Hessmann 177
hidden histories 226
higher-level academic training 180
high stakes testing 160
historical context 225, 228
historical documents 227–228
historical studies 88
human sciences 11, 12, 15, 16, 18, 19
human subjects 185

I
inclusive education 36
inductive 17, 18
inferential statistics 97
informed consent 61
Institutional Review Board (IRB) 61
interactional signed language interpreting data 81
interdisciplinary research 50
intermediary interpreters 236
internal validity 93
International Sign 182
interpreted education 34
interpreted interaction 228
interpreter education programs 252
interpreter fieldwork research 141
interpreter-mediated conversations 60, 97
interpreter's paradox 80
interpreter's role 88
interpreting in educational contexts 28
interpreting in legal contexts 36
interpreting research paradigm 47
interpretive 8, 9, 11, 12, 15, 16, 22, 23
interpretive analytical approach 88, 95
interviews 89

J
Johnstone 62

L
labor-market 187
Labov 70
language brokering 225, 230, 232, 233, 234, 237
language modality 247
language proficiency 169
Latin 226, 227
Leeson 153
legislation 249
lingua franca 226
linguistic access 226
linguistic equals 226
Liu 85

M
managing communication 75
Martha's Vineyard 227
Mather 228
McDermott and Tylbor 75
mediated education 33
meta-cognitive awareness 166
methodology 11, 16, 85
Metzger 60, 70, 73, 74, 77, 80
mixed methods 18, 19, 22, 23, 88
Moser-Mercer 11, 47–49, 51, 57, 192, 207–208, 214
multilingual community 227, 228
multi-method 22
musical score format 71

N
Napier 121
National Consortium of Interpreter Education Centers 207
National Exchange Carriers Association 202
National Institute on Deafness and Other Communication Disorders 243
natural groups design 101
naturalistic human interaction 62
negative self-assessment 165
Nicodemus 1, 123, 241

O
objectivity 185
observation 89
Observer's Paradox 70
Ochs 71
Old Bailey 231, 233
ontology 13
Ottoman Court 231
overlapping talk 73

P
paradigm 8, 9, 10, 11, 17, 18, 19, 22
Paris 231
pedagogy 191
Peirce 13, 17
performance features 155
Peterson 199
Pink 62
Pöchhacker 2, 8–9, 14, 19, 106, 122–123, 125–126, 128–129
Popper 12, 17
positivism 11
postcolonial lens 229
POTS 211
power relationships 228
practisearchers 129, 142
pragmatist 18
precepts 186
prediction research 99
pre-experiments 96, 103
presentism 95
primary participants 189
primary sources 95
Problem-Based Learning (PBL) 163
problem solving 188
professionalization 179
proficiency tests 155, 156
psychology 7, 9, 13
purposeful teacher language 33

Q
qualitative research 18, 19, 37, 88
quantification 14, 15, 20
quantitative research 37, 88
quasi-experimental design 42, 96, 102
questionnaire 90

R
rater attitude 160
ratified participants 78
real world enquiry 184
reflective practice 178
registration of interpreters 154
relationship research 100
relay interpreting 235, 236
Relevance Theory 91
research ethos 182
research methods 56
research paradigm 52
resources 246
response rate 99
retrospective interviews 90
RID (Registry of Interpreters for the Deaf) 179, 204, 205, 235, 254
rigour 190
Roy 60, 70, 73, 77, 81
Russell 27

S
Sadlier 169
Salmi 177
sample 97
Schilling-Estes 62
scientific process 52
scientific research methods 50
scientific standards 57
secondary sources 95
Seleskovitch 10, 11
self-analysis skills 166
self-assessment 153
self-inventory 40
self-study 181
shifts 91
Shlesinger 86–87, 94, 124–127, 129, 133
signed language interpreting 97, 122, 179
signed languages 226, 228
simultaneous interpreting 97
simultaneous mode 192
social capital 235
social norms 215
social sciences 9, 12, 14, 15, 18, 22, 23
socio-historical context 230
sociology 11, 12, 14, 15
Socrates-Erasmus Program 181
source 190
source attributions 73
specialization 254
stakeholders 186
starting a research project 28
statistics 211
Stone 225
strategic processing 165
student self-assessment 165
subaltern history 234, 237
subjectivities 185
survey 87
Swabey 1, 241

T
Tannen 81
target texts 190
teaching language frames 34
team interpreting 212
telephonic relay service (TRS) 215
test construct 158
test content 158
test design 158
test domain 158
testing cycle 154, 157
testing of student interpreters 155
test method design 158, 159
test security 158
test specification 159
test type 154
text analysis 90
Theater of Cruelty 219
Think Aloud Protocol (TAP) 43, 169
thinking skills 188
threshold 172
Tokyo War Crimes Tribunal 94
training the trainers 192
transcription 70, 247
translation studies 7, 12, 13, 15, 16, 190
trans-national exchange 180
triangulation 90, 232
Turner 177
turns 73
turn-taking 91

U
understanding 10, 11, 12, 14, 15, 16, 17
unequal status 228
unimodal bilingual interpreters 242
U.S. Joint Commission 243

V
validation 158
validity 90, 159
variables 99

video conferences 181
video gaming 218
Video Relay Service 199
video release form 63
virtual space 183
volunteer sample 98

W
Wadensjö 60, 61
washback 155
welfare colonialism 237
Winston and Ball 70
working memory 101
Wurm 177

Y
Yakura 63