Interpreting in a religious setting: an exploratory study of the profile and interpretive process of volunteer interpreters[1]

Igor Antônio Lourenço da Silva, Eliane Brito Soares, Marileide Dias Esqueda*

1 Introduction

Interpreting is a common practice in evangelical missionary churches. However, little is known about the practice and profile of religious interpreters, as few studies have approached this topic worldwide and particularly in Brazil (Hokkanen, 2012; Downie & Karlik, 2013). In other words, Translation Studies encompasses several practices, but it is still in its infancy when it comes to interpreting (Pagura, 2010, 2012; Napier, 2011; Pöchhacker, 2015), let alone interpreting in religious settings (Downie & Karlik, 2013) and other instances of non-professional interpreting (Susam-Sarajeva & Pérez-González, 2012).

In some of such churches in Brazil, volunteers with some fluency in the English language have successfully interpreted foreign speakers' utterances despite lacking specific training in either interpreting or

---

[1] This article has not been disclosed in any journal or academic event before. Part of the data was analysed in Eliane Brito Soares's undergraduate thesis (in Portuguese).

* Igor Antônio Lourenço da Silva holds a PhD in Linguistics from UFMG and is an assistant professor at Universidade Federal de Uberlandia; Marileide Dias Esqueda holds a PhD in Translation Studies from Unicamp and is an assistant professor at Universidade Federal de Uberlandia; Eliane Brito Soares is a professional translator and interpreter and holds a bachelor's degree in Translation from Universidade Federal de Uberlandia.

translation. Such success may be in part explained by their tacit knowledge (Wagner, 1991) of interpreting acquired through experience, interactional expertise (Collins & Evan, 2010) acquired in interactions with ministers, and their domain knowledge (Scardamalia & Bereiter, 1991) of the Bible acquired through their active engagement in the church community.

Drawing on such an assumption, this exploratory study investigates the profile and interpretive process of three volunteer interpreters from an evangelical missionary church in Brazil. To this end, it builds on a twofold methodology. Firstly, a prospective questionnaire was applied to identify some characteristics of such religious interpreters, including the type and mode of interpreting they usually perform. Secondly, a process-oriented experiment was carried out wherein their performances were compared to those of two undergraduate students of translation who had completed a required course on fundamentals of interpreting and had no or incipient domain knowledge of the Bible. The experiment was designed to tap into how the participants coped with an interpreting task requiring different levels of domain knowledge and demanding different levels of cognitive effort to process short and long stretches of speech. Cognitive effort was measured through variables head start, pauses during delivery, size of renditions, and interpreting strategies.

This article consists of five sections including this Introduction. Section 2 provides a brief overview of the literature. Section 3 describes the methodology used to collect and analyse data. Section 4 provides data analysis and discussion of results. Section 5 contains the final remarks, including the limitations of this study and suggestions for further studies.

2 Literature Review

The types of interpreting are defined building on their context and purpose (Jiménez-Ivars, 2002). They usually include: conference, community, court, liaison, and medical interpreting (Pagura, 2003). The type of interpreting usually determines the mode of interpreting—for instance, conference interpreting usually requires consecutive or simultaneous interpreting, while community interpreting usually requires whispered or sentence-by-sentence interpreting (Pagura, 2003; Pöchhacker, 2004; Origuela, 2014).

The modes of interpreting are based on a combination of factors, including: (1) time lapse between original and interpreted speeches, (2) the volume of information provided in the source language before the interpreter's delivery, (3) the technological resources used, and (4) the interpreter's physical position in relation to the audience and the speaker. The most common modes of interpreting are consecutive interpreting, simultaneous interpreting, sentence-by-sentence interpreting, and whispered interpreting (Pagura, 2003).

In consecutive interpreting, the interpreter listens to a long stretch of speech and takes notes before delivering the speech into the target language. In simultaneous interpreting, the interpreter works isolated in a soundproof booth with a glass window to watch the speakers while listening to their speech through earphones and delivering the message through a microphone to have it reach the audience's earphones. In sentence-by-sentence interpreting, the interpreter stands beside the speaker and delivers their message every one or two short sentences while they pause. In whispered interpreting, the interpreter sits next to the client and whispers what is being said in his/her ear, simultaneously.

From another perspective, Jiménez-Ivars (2002) identifies only two basic modes of interpreting, which are determined by the pace of source-speech enunciation: simultaneous and consecutive interpreting. In simultaneous translation, the source speech is produced continually, and its delivery in the target language takes place quasi-concomitantly. In consecutive interpreting, the source speech is produced with interruptions for its delivery in the target language. According to the author, consecutive interpreting may be dialogical or monological: the interpreter delivers in both work languages in dialogical interpreting, but in only one language in monological interpreting while the speaker pauses every now and then.

Silva (2013) argues that dialogical, sentence-by-sentence interpreting is the most common mode in religious settings, but he provides no empirical evidence to support his statement. In contrast, Shin (2013) states that interpreting in evangelical churches in South Korea shares most characteristics with both community and conference interpreting,

which therefore requires other modes, including consecutive and simultaneous interpreting.

Regardless of mode and type, interpreting requires much more than good knowledge of source and target languages. The interpreter is also supposed to both capture and deliver subtle meanings, emotional values in the words, and stylistic features in the messages. Following Collins & Evans (2010), Scardamalia & Bereiter (1991) and Marcuschi (2007), this can be particularly achieved respectively through interactional expertise, domain knowledge and shared knowledge among the participants, markedly when they share certain social norms and cultural aspects. This holds especially true in the interpreting of sensitive texts, which may trigger intense, conflicting reactions in the audience (Simms, 1997; Lopes, 2009, 2011).

In addition, the interpreter may resort to contextual assumptions to deliver a message in the target language (Alves & Pagura, 2002). Contextual assumptions are built on encyclopaedic knowledge[2] (Lederer, 2003) and domain knowledge (Scardamalia & Bereiter, 1991), and allow for identifying elements which can bear communicative values of cultural significance in the interpreting act. Building on their domain knowledge, the interpreter is capable of extracting information that is not directly accessible in the speaker's utterance and subsequently making inferences to solve problems and support their decision making.

Regardless of their knowledge, the interpreter, like any human being, holds a limited working memory and is supposed to deal with different amounts of cognitive load (Seeber, 2013, Chen, 2017a). "Cognitive load in interpreting is defined as the portion of an interpreter's limited cognitive capacity devoted to performing an interpreting task in a certain environment" (Chen, 2017a, p. 1). If cognitive load is too high, performance is expected to decrease, and instances of cognitive effort are likely to be

---

[2] Encyclopaedic knowledge includes all linguistic and extra-linguistic knowledge stored in the working memory and can be retrieved anytime through internal and external stimuli. It comprises mental representations of facts, experiences, and significant events and emotions, as well as theoretical knowledge, imagination, reflections, readings, and specialized knowledge (Lederer, 2003).

more observable, as the interpreter will need more time or show more hesitation and oblivion while delivering a message.

The working memory stores information for a limited span of time and may suffer from the interference of new pieces of information, which can lead to oblivion (Miller, 1967; Dragsted, 2004). The working memory stores and retrieves units of information not only in words, but also in larger chunks, including phrases and clauses. Experiments have shown that the working memory can reliably store approximately three or four chunks, which can contain larger or shorter units of information depending on one's domain knowledge while performing a task (Ericsson & Kintsch, 1995).

Memory, cognitive load, inference and contextual supposition—alongside prosodic cues—are key concepts to understand Seleskovitch's (1978) three-stage Interpretive Theory of Translation. In the first stage, comprehension, the interpreter apprehends the linguistic component. In the second stage, deverbalisation, the interpreter tries to identify what is relevant and significant in the original utterance, focusing on content rather than words. In the third stage, reverbalisation, the interpreter renders a new utterance aiming to provide the audience with a content that is relevant to them.

Over 30 strategies are available for the interpreter in the reverbalisation stage. Table 1 provides a list of strategies identified in the experiments reported in Section 4. Strategies are "intentional and goal-oriented procedurals to solve problems resulting from the interpreters' processing capacity limitations or knowledge gap, or to facilitate the interpreter's task and prevent potential problems" (Li, 2013, p. 103).

Table 1: Interpreting strategies

Strategy	Definition
Compression / condensation / summarizing / filtering	The original meaning is rendered by the interpreter in a more general and concise way, usually with all repetitive, unimportant, or redundant information deleted or omitted.
Inferencing	The interpreter recovers lost or incomprehensible information on the basis of the speech context and his or her general knowledge.
Omission / skipping / ellipsis / message abandonment	The interpreter uses periods of silence and pauses in which certain messages are not interpreted at all due to comprehension, note- reading, or memory failure.
Parallel reformulation / substitution	The interpreter tries to invent something that is more or less plausible in the context, or to substitute elements that are not understood with elements mentally available, because of comprehension, note-taking or note-reading failure, so as not to pause or leave a sentence unfinished.
Repair	The interpreter realizes that something said is misinterpreted, or can be interpreted in a better way, and he or she decides to make a correction.
Repetition	The interpreter repeats previously interpreted elements through synonyms or synonymic phrases as a way of enhancing lexical accuracy or generating more time to organize the language.
Restructuring / changing order	What is conveyed by the speaker in one position in the source discourse is interpreted by the interpreter in a different place in the target discourse, which ensures more idiomatic target language.
Text expansion / addition / elaboration	The interpreter adds information or expands the source discourse, so as to better convey or clarify the message and avoid unclear information in the target discourse.
Transcodage / transcoding / calque	The interpreter selects the word-for-word translation method because the interpreter is not able to grasp the overall meaning of the source text.

Source: Adapted from Li (2013, p. 110-113).

Some of the strategies in Table 1 focus on the matching of linguistic content in source and target speeches, while others refer to note-taking and speech issues, including pauses. Pauses can be understood as moments of silence or hesitation sounds. Either way, they are essential windows in the organisation of the cognitive activity (Goldman-Eisler, 1967) and may be indicative of cognitive effort (Alves, 2003). In consecutive interpreting, pauses before delivery last 11 seconds on average among professionals and 20 seconds among students; in simultaneous interpreting, the head start is 3 seconds on average (Anderson, 1994).

Note-taking is particularly important in consecutive interpreting (Abuín-Gonzáles, 2012; Cardoen, 2013, Chen, 2017b). It serves "to support

memory both as external storage devices (e.g., for numbers and names) and as retrieval cues for memorized conceptual structures or patterns of sense" (Pöchhacker, 2004, p. 123). Some note-taking techniques include: starting as soon as relevant content is heard, using significant symbols instead of words, using subject-verb-complement wording, and supressing vowels.

3 Materials and Methods

This study aims to initiate an investigation into the interpretive process and the profile of volunteer interpreters working in religious settings. To this end, a methodology of data collection and analysis was developed drawing on interpreting process research techniques. The research was approved by Universidade Federal de Uberlândia ethics committee (Approval No. 989,149), and informed consent was obtained from all participants.

First, a questionnaire was applied to three religious interpreters with no training in interpreting (identified as I1 to I3) to determine their profiles and identify the mode and type of interpreting used in an evangelical missionary church in Uberlandia/MG, Brazil. The questionnaire contained both closed and open-ended questions divided into two parts. Part 1 targeted the participants' profile (e.g., their age, when they learnt English) and was loosely based on Shin (2013), while Part 2 targeted their work as volunteer interpreters. Both questions and answers were audio-recorded and transcribed.

Then, a two-staged interpreting experiment was carried out with these three religious interpreters and two translation students (identified as T1, male; and T2, female) of the Bachelor's Degree in Translation Program at Federal University of Uberlandia. The students were introduced into the study for the sake of comparison, as they both had completed a required course on fundamentals of interpreting (60 hours) and had no professional experience and no or incipient domain knowledge of the Bible.

A screen and audio-recorder (CamStudio version 2.7.2) was used in the experiment to record their interpreting from English into Portuguese of

an 8.5-minute-long sermon video[3] divided into stretches of variable lengths (as available at http://ials03.wix.com/contextoreligioso). The video was replayed on Mozilla Firefox running on a computer with the following specifications: Windows 8, Intel Core i7, 3.4 GHz, 8 GB RAM, and 500 GB HD. All participants used a JBL earphone (model E50BT). Pen and papers were available for the participants to take notes, if they wanted.

Before starting the experiment, participants could freely stop and rewind a 50-second-long segment which was provided as a warm-up for them to get familiar with the speaker and the experimental setting designed for their interpreting. That segment referred to the initial part of the original video, and provided data that were not assessed.

In Stage 1, 16 stretches of 2 to 7 seconds from the video segment 0'50" to 1'42" were provided for interpreting; these segments demanded great domain knowledge of the Bible. In Stage 2, 10 stretches of 4 seconds to 2 minutes from the video segment 1'42 to 8"39 were provided for interpreting; these segments contained variable volumes of information. In both stages, participants were not allowed to stop or rewind. The aim of these two stages was to test the hypotheses that (1) the religious interpreters, given their experience, interactional expertise and domain knowledge, would allocate less cognitive effort than the other participants when interpreting worship stretches imbued with strong biblical references, while (2) the translation students, given their notions of interpreting types and modes through an one-course training on interpreting at the already mentioned undergraduate Translation program, would sort out information better, and thus allocate less cognitive effort than the others when interpreting extremely long stretches.

The data obtained in the experiment were processed using Workshop Subtitle to measure speech start (including head start) and duration (in seconds and in words), Free Video to Audio Converter 2015 to transform the video into audio, and Audacity to accurately measure pauses (number and duration) as a proxy of hesitation and/or silence for 3 seconds

---

[3] AMAZING FACTS. A river of life. 24'49". Available at: <https://www.youtube.com/watch?v=aDEcFyqD2Q0>. Access on: 8 Jul. 2017.

or longer building on audio wave representations. In addition, Microsoft Excel was used to compile data and include information on note-taking (extracted from the participants' sheets of paper) and strategies.

The strategies were those listed in Table 1 (Section 2) and also included hesitation, non-interpreted stretch, and interpreting error. The following rationale was used for such an inclusion. No interpreting or poor interpreting could have been participants' choice in prejudice of, for instance, omitting a poorly understood stretch. Hesitation was identified as an attempt of signalling to the audience that the interpreter is processing some information. Error was identified as particularly indicative of inability to cope with domain knowledge-specific stretches and large volumes of information.

Whenever possible, descriptive statistics and F-tests were computed on SPSS, v. 17.0. Significance was set at 0.05 to compare the groups.

4 Analysis

The analysis is divided into two parts. Section 4.1 provides an overview of the volunteer interpreter's profile and work in the church. Section 4.2 reports the results of the experiment aimed to tap into the interpretive process of both religious interpreters and students.

4.1 Religious interpreters' profile and work

The results of the questionnaires pointed to two different profiles of religious interpreters: (1) pulpit interpreters, who are middle-aged ministers and full-blown members of the church community that interpret the English utterances from one speaker to a wide Portuguese-language audience; and (2) prayer queue interpreters, who are young members of the community that interpret the prayer's English-language utterances and the Portuguese-language requests of each person standing in a queue. I1 (male, in his middle fifties) and I2 (female, in her middle fifties) are pulpit ministers, whereas I3 (female, in her early twenties) is a prayer queue interpreter.

Table 2 shows the volunteer interpreters' answers to a 5-point Likert scale questionnaire based on Shin (2013). They were required to assess from 1 (unimportant) to 5 (extremely important) how important each behaviour is in their interpreting act.

Table 2: Participants' assessment of interpreting behaviours

	Interpreting behaviour	I1	I2	I3	Mean
1)	To be faithful to the original message	5	5	5	5.0
2)	To make small additions to increase understanding	5	4	4	4.3
3)	To make small deletions to increase understanding	4	3	4	3.7
4)	To interpret and sound fluently	4	5	4	4.3
5)	To sound spontaneous	4	5	4	4.3
6)	To replicate the speaker's stress and intonation	4	5	5	4.7
7)	To replicate the speaker's body language	4	5	3	4.0
8)	To speak as fast or slowly as the speaker	4	5	2	3.7
9)	To use adequate expressions and terms from the Bible	4	5	5	4.7
10)	To believe in the message that is interpreted	3	5	5	4.3

The participants usually share a common understanding that they should be faithful to the original message (1), replicate the speaker's stress and intonation (6), and use adequate expressions and terms from the Bible (9). They also seem to fairly agree that they should try to increase the audience's understanding (2 and 3), sound fluent (4) and spontaneous (5), and believe in the message that is interpreted (10). However, they seem to have a different understanding of body language and speech velocity: while the pulpit interpreters (I1 and I2) ranked such behaviours highly, the prayer queue interpreter (I3) ranked them medium or lowly. Such difference is probably because of their different work at the church, as explained below. In addition, I1 explained his score 3 to "believe in the message that is interpreted": because several trends of thought coexist in the evangelical church, he will be faithful to the original message (1), but not necessarily believe in the entire content of the speakers' message.

According to I1 and I2, monolingual sermons usually last ca. 40 minutes, but this time may extend to ca. 70 minutes in interpreted sessions. The pulpit interpreter usually works alone and may have had a previous contact with the speaker on other occasions (e.g., when the speaker is a guest at the ministers' place), but most contacts take place around 20-30 minutes before the worship so that the interpreter can get familiar with the speaker's voice and accent and, if possible, with the topic. Pulpit interpreters are required to have great domain of the English language and be acknowledged as full-blown members of the church.

Pulpit interpreting takes place before an audience and requires responsibility and emotional stability. Albeit not trained to do so, some ministers are used to the presence of an interpreter given their previous experiences, and they manage to pause their speech so that the interpreter can deliver their message. However, most ministers need to be interrupted because they tend to speak long messages, and the interpreter does not take notes. Most difficulties arise from dealing with proper names, unknown topics, speech velocity, speakers' oral skills, accent of both native and non-native speakers, and idioms used in different regions and countries (Seleskovitch, 1978).

As for the mode of interpreting, such practice of pulpit interpreting shares some characteristics in common with sentence-by-sentence interpreting (Pagura, 2003) and monological consecutive interpreting (Jiménez-Ivars, 2002). As for the type of interpreting, it is somehow related to conference interpreting (Pagura, 2003) and similar to what happens in South Korea (Shin, 2013), as it is unidirectional and targeted to a large number of people. However, it also shares some characteristics with community interpreting, as interpreters are untrained, do not take notes, and are allowed to interrupt the speaker.

According to I3, prayer queue interpreting usually takes place in three-day events, in which a group of missionaries make prayers to help cure emotional and physical diseases. Every missionary has an interpreter by their side, and people come to them and tell them their problems. Missionaries are often used to such an experience and tend to speak easily, but some may forget that their utterances are to be interpreted.

The role of the interpreter is mediating the interactions by whispering messages in English to the missionary and messages in Portuguese to the worship participants. Prayer queue interpreting usually lasts 2 hours every day, and the interpreter is usually emailed a practical guide with useful expressions in English and their interpretation into Portuguese, as well as a list of anatomical expressions and common diseases. Prayer queue interpreters are members of the church who are expected to have good knowledge of the English language. However, given the lack of interpreters, people with little knowledge of English are, too, welcome.

Prayer queue interpreting may be considered a type of community interpreting, as it is face to face and bidirectional, does not involve note-taking, and is directed toward a limited number of "clients" (Origuela, 2014). As for the mode of interpreting, it holds close resemblance to sentence-by-sentence (Pagura, 2003; Pöchhacker, 2015) and dialogical consecutive interpreting (Jiménez-Ivars, 2002). However, because the crowded setting requires the interpreter to whisper in both missionaries' and worship participants' ears, it also shares some characteristics in common with whispered interpreting (Pagura, 2003; Pöchhacker, 2015).

4.2 Interpretive process

Both translation students (T1 and T2) asked the mode of interpreting before starting the task, while the volunteer interpreters did not. T1 and T2 had an introductory formal training in note-taking (Abuín-Gonzáles, 2012; Cardoen, 2013, Chen, 2017b). In contrast, I1, I2 and I3 were not used to taking notes, but ended up doing that because of the length of some stretches. However, as they did not know note-taking techniques, they sometimes tried to stop the video, sometimes forgot to take notes, and sometimes wrote down long, complete sentences.

Table 3 shows the interpreting strategies used by the participants. The number on the left of the slash ("/") refers to experiment Stage 1 and the number on the right refers to Stage 2. Strategies were counted only once per stretch for each participant.

Table 3: Interpreting strategies per type and per participant

Part.	Trans.	Omi.	Inf.	Con.	Ref.	Res.	Exp.	Rep.	Repe.	Hes.	Err.	Tre.	Total
I1	8/0	6/8	1/5	0/3	1/3	0/2	0/0	0/2	0/1	0/4	5/6	0/0	21/34
I2	11/3	2/7	0/5	0/2	2/1	0/1	0/0	2/3	0/1	2/9	1/1	0/0	20/33
I3	6/0	5/8	0/1	0/2	2/0	0/1	2/0	2/3	0/0	0/6	4/5	0/1	21/26
T1	8/0	3/8	1/1	0/5	3/0	0/0	1/0	2/0	0/0	0/4	0/5	2/0	20/23
T2	9/0	5/8	0/1	0/3	1/1	0/1	0/1	0/0	0/0	0/5	1/6	1/2	19/26
Total	42/3	21/39	2/13	0/15	9/5	0/5	3/1	6/8	0/2	2/28	11/23	3/3	101/143

Note: Part.=participant;   Trans.=transcoding;   Omi.=omission;   Inf.=inference;   Con.=condensation;   Ref.=reformulation; Err.=interpreting error; Hes.=hesitation; Res.=restructuring; Exp.=expansion; Rep.=repair; Repe.=repetition; Tre.=non-interpreted segment.

Omission and transcoding were the most common strategies. Transcoding virtually occurred only in Stage 1, probably because of the short stretches, while omission occurred in both stages, especially in Stage 2 because of the long stretches (Gile, 2015).

Condensation, restructuring and repetition occurred only in Stage 2. Along with inferencing (which mostly occurred in Stage 2), these seem to be strategies that help the interpreter cope with the difficulty of storing much information in their working memory. In contrast, expansion had a few occurrences, especially in Stage 1, probably because of the short stretches. Repair seems to have no connection with the stretch lengths. In addition, hesitation and interpreting error may be indicative of difficult processing and cognitive effort, and therefore were more apparent in Stage 2. The religious interpreters resorted to a greater variety of strategies than the translation students, which also left a few more segments uninterpreted.

Table 4 exhibits speech duration in seconds. Zeros account for uninterpreted stretches.

Table 4: Speech duration in seconds

Stage	Stretch	Original	I1	I2	I3	T1	T2
1	1	3	5	6	5	3	4
	2	5	5	7	5	0	9
	3	2	4	3	3	0	6
	4	5	8	7	7	4	3
	5	3	5	6	6	5	5
	6	2	2	5	4	4	3
	7	2	2	2	2	2	2
	8	2	2	3	4	2	3
	9	2	3	5	3	2	3
	10	2	2	3	2	3	2
	11	3	3	9	11	4	3
	12	7	8	13	5	7	6
	13	2	2	2	2	2	2
	14	3	3	3	2	2	2
	15	4	4	7	9	5	5
	16	2	2	3	3	3	0
2	1	36	51	40	44	15	31
	2	51	47	66	49	19	30
	3	16	22	34	0	9	8
	4	4	3	7	7	4	0
	5	12	13	23	14	3	0
	6	120	145	168	45	34	66
	7	12	19	15	14	11	12
	8	24	42	37	9	10	22
	9	44	43	62	26	26	34
	10	95	90	132	50	28	58

The F-test revealed a significant difference (p=0.045) in speech duration between religious interpreters and translation students. The religious interpreters on average spoke longer than the students (19.6 seconds vs. 10.1 seconds). The religious interpreters, especially I1 and I2 (pulpit interpreters), spoke even longer in Stage 2. The pulpit interpreters

claimed they had domain knowledge of the sermon, whereas I3, prayer queue interpreter, said she did not know the topic and was at odds with how to interpret the sermon.

Table 5 shows the number of words used in interpreting each stretch. This measure was used as a rough proxy of working memory capacity and illustration of delivery, but does not account for content and relevance in speech. Zeros account for uninterpreted stretches.

Table 5: Number of words per stretch and per participant

Stage	Stretch	Original	I1	I2	I3	T1	T2
1	1	9	9	12	11	11	12
	2	13	10	10	8	0	6
	3	6	5	5	7	0	5
	4	12	16	12	11	11	9
	5	13	12	14	11	10	14
	6	8	6	9	8	13	9
	7	3	3	3	5	3	3
	8	7	6	7	7	7	7
	9	7	7	8	7	7	7
	10	5	5	5	5	5	5
	11	12	5	10	15	9	6
	12	19	24	19	10	22	14
	13	3	3	3	3	3	3
	14	6	6	5	6	4	5
	15	13	9	13	14	11	6
	16	5	4	4	5	4	0
2	1	98	107	65	88	28	81
	2	157	90	107	75	41	73
	3	55	40	57	0	23	17
	4	11	12	12	11	10	0
	5	25	28	30	22	8	0
	6	374	355	298	91	83	132
	7	46	34	29	30	31	29
	8	93	117	74	20	31	52
	9	136	105	105	35	70	84
	10	307	226	267	111	82	167

The F-test revealed a non-significant difference (p=0.45) in the number of words per stretch between religious interpreters and translation students. However, the religious interpreters on average spoke more words than the students (39.5 words vs. 27.1 words). The religious interpreters, especially I1 and I2 (pulpit interpreters), spoke even longer in Stage 2.

Table 6 shows the head start (in seconds). Zeros account for uninterpreted stretches. Values "1" were used to signal pauses close to zero or below 2 seconds, as they could not be accurately measured in milliseconds.

Table 6: Head start in seconds

Stage	Stretch	I1	I2	I3	I4	T1	T2
1	1	1	3	3	1	2	3
	2	1	1	9	2	0	1
	3	1	1	2	2	0	2
	4	1	1	1	1	1	1
	5	1	1	1	1	2	1
	6	1	1	1	1	1	1
	7	1	1	1	1	1	1
	8	1	1	1	1	1	1
	9	1	1	1	1	2	1
	10	1	1	1	1	1	1
	11	1	1	2	1	1	1
	12	1	1	1	1	2	1
	13	1	1	1	1	1	1
	14	1	1	1	1	1	1
	15	1	1	1	1	1	1
	16	1	1	1	1	5	0
2	1	1	70	4	7	4	63
	2	1	20	1	2	3	51
	3	1	11	0	2	9	5
	4	1	9	1	1	2	0
	5	1	1	2	2	1	0
	6	1	9	2	4	4	99
	7	2	2	4	3	1	5
	8	1	9	1	7	2	6
	9	2	6	2	3	3	15
	10	1	5	2	6	10	24

The F-test pointed to no statistically significant difference (p=0.72) in head start between religious interpreters and translation students. However, the interpreters on average took shorter to start their interpreting than the translation students (3.1 seconds vs. 7.4 seconds). The head start was longer in Stage 2 than in Stage 1. Except for I2 in Stage 2, the head start seemed to be more consistent with that of simultaneous interpreting, than that of consecutive interpreting (Anderson, 1994).

Table 7 provides the pauses of 3 seconds or longer identified during interpreting. It clearly shows the participants avoided moments of silence throughout their interpreting. Dashes ("--") account for no pauses.

Table 7: Pauses during interpreting (in seconds)

Stage	Stretch	Original	I1	I2	I3	I4	T1	T2
1	1	--	--	--	--	--	--	--
	2	--	--	--	--	--	--	--
	3	--	--	--	--	--	--	--
	4	--	--	--	--	--	--	--
	5	--	--	--	--	--	--	--
	6	--	--	--	--	--	--	--
	7	--	--	--	--	--	--	--
	8	--	--	--	--	--	--	--
	9	--	--	--	--	--	--	--
	10	--	--	--	--	--	--	--
	11	--	--	--	--	--	--	--
	12	--	--	--	--	--	--	--
	13	--	--	--	--	--	--	--
	14	--	--	--	--	--	--	--
	15	--	--	--	--	--	--	--
	16	--	--	--	--	--	--	--
2	1	--	5	6	--	--	--	--
	2	--	--	--	4	--	--	--
	3	--	--	--	--	--	--	--
	4	--	--	4	--	3	--	--
	5	--	--	--	5	--	--	--
	6	--	3	--	--	3	--	--
	7	--	--	--	--	--	--	--
	8	--	--	--	--	5	--	--
	9	--	--	--	--	--	--	--
	10	--	--	--	--	--	--	--

The aim of the two stages was to test two hypotheses. One of those was that the religious interpreters, given their experience, interactional expertise and domain knowledge, would allocate less cognitive effort than the other participants when interpreting worship stretches imbued with strong biblical references. The results seem to corroborate this hypothesis. Both I1 and I2, pulpit interpreters who stated they had domain knowledge of the sermon content, managed to cover nearly all aspects of the speech and even adopt prosodic cues and rhetoric devices similar to those of the

speaker. Therefore, their deliveries lasted longer, while the translation students (T1 and T2) tended to be more succinct. These results are consistent with assumptions provided by Scardamalia & Bereiter (1991) on domain knowledge, and Lederer (2003) on encyclopaedic knowledge.

The other hypothesis was that the translation students, given their introductory specific training, would have a better notion of taking notes and sorting out information, and thus allocate less cognitive effort than the others when interpreting extremely long stretches (Abuín-Gonzáles, 2012; Chen, 2017a, Seeber, 2013). This hypothesis, however, could not be confirmed nor refuted.

The pulpit interpreters' performance may be explained in terms of their domain knowledge and ability to resort to different strategies to cope with task difficulty and limited working memory (Miller, 1967; Ericsson & Kintsch, 1995; Dragsted, 2004). As a matter of fact, I1 and I2 seemed to process larger chunks in their working memory (Miller, 1967) building on short notes (Abuín-Gonzáles, 2012; Cardoen, 2013)—for instance, I1 had only a nine-word note to render a 355-word-long speech in his processing of a 374-word-long original speech in nearly its full content.

5 Final remarks

This study set out to investigate the profile and work of volunteer interpreters in Brazilian religious settings. The questionnaire results pointed to two different profiles with different work conditions: pulpit interpreters and prayer queue interpreters. In addition, the experiment results, which included translation students for the sake of comparison, seemed to point to an impact of domain knowledge on the pulpit interpreters' performance, as they used a higher number of interpreting strategies and interpreted for longer times.

However, as the study is exploratory in nature, results are not generalizable, but rather indicative of a profile yet to be explored in Translation and Interpreting Studies. Further studies should tap into religious interpreters' profile and performance building on a larger sample and on automatic processing of data. They should also more deeply

investigate content delivered as well as prosodic cues and rhetoric devices used by the interpreters while delivering their messages.

Acknowledgments

References

ABUÍN GONZÁLEZ, M. The language of consecutive interpreters' notes: Differences across levels of expertise. **Interpreting**, v. 14, n. 1, p. 55-72, 2012. doi: 10.1075/intp.14.1.03abu.

ALVES, Fabio. Tradução, cognição e contextualização: triangulando a interface processo-produto no desempenho de tradutores novatos. **D.E.L.T.A**., São Paulo, v. 39, p. 71-108, 2003.

ALVES, Fabio; PAGURA, Reynaldo. The interfaces between written translation and simultaneous interpretation: instances of cognitive management with a special focus on the memory issue. In: FIT WORLD CONGRESS, 16., Vancouver, 2002. **Proceedings**…Vancouver: FIT, 2002. p. 1-7.

ANDERSON, Linda. Simultaneous interpretation: contextual and translation aspects. In: LAMBERT, Sylvie; MOSER-MERCER, Barbara (Ed.). **Bridging the gap: empirical research in simultaneous interpretation**. Amsterdam: John Benjamins, 1994. p. 101-120.

CARDOEN, Hanne. The effect of note-taking on target-text fluency. In: GONZÁLEZ-NÚÑEZ, Gabriel; KHALED, Jasmine; VOINOVA, Tanya (Ed.). **Emerging research in Translation Studies**: Selected papers of the CETRA Research Summer School 2012. Leuven: CETRA, 2013. p. 1-22.

CHEN, Sijia. Note-taking in consecutive interpreting: New data from pen recording. **Translation & Interpreting**, v. 9, n. 1, p. 3-23, 2017a. doi: 10.12807/ti.109201.2017.a02.

----------. The construct of cognitive load in interpreting and its measurement. **Perspectives**, v. 33, p. 1-18, 2017b. doi:10.1080/0907676X.2016.1278026.

COLLINS, Harry; EVANS, Robert. **Repensando a expertise**. Translated by Igor Antônio Lourenço da Silva. Belo Horizonte: Fabrefactum, 2010.

DOWNIE, Jonathan; KARLIK, Jill. Translating and interpreting in religious settings. In: EUROPEAN SOCIETY FOR TRANSLATION STUDIES CONGRESS, 7., Germersheim, 2013. **Proceedings**… Germersheim: Universität Mainz, 2013. [on-line]. Available at: <http://www.fb06.uni-mainz.de/est/63.php>. Access on: 10 Apr. 2015.

DRAGSTED, Barbara. **Segmentation in translation and translation memory systems: an empirical investigation of cognitive segmentation and effects of integrating a TM system into the translation process**. København: Samfundslitteratur, 2004.

ERICSSON, K. Anders; KINTSCH, Walter. Long-term working memory. **Psychological Review**, v. 102, n. 2, p. 211-245, 1995.

GILE, D. Testando a hipótese da "corda bamba" do modelo dos esforços na interpretação simultânea – uma contribuição. [Testing the effort models tightrope hypothesis in simultaneous interpreting – a contribution, 1999]. Translated by Markus Johannes Weininger, Giovana Bleyer Ferreira dos Santos, Diego Maurício Barbosa. **Cadernos de Tradução**, Florianópolis, v. 35, p. 590-647, 2015.

GOLDMAN-EISLER, Frieda. Sequential temporal patterns and cognitive processes in speech. **Language and Speech**, v. 10, n. 3, p. 122-132, 1967.

HOKKANEN, Sari. Simultaneous church interpreting as service. **The Translator,** v. 18, p. 291-309, 2012.

JIMÉNEZ-IVARS, Amparo. Variedades de interpretación: modalidades y tipos. **Hermeneus – Revista de Traducción e Interpretación**, n. 4, p. 1-15, 2002.

LEDERER, Marianne. **Translation**: the interpretive model. Translated by Ninon Larché. Londres: Routledge, 2003.

LI, Xiangdong. Are interpreting strategies teachable? Correlating trainees' strategy use with trainers' training in the consecutive interpreting classroom. **The Interpreters' Newsletter**, v. 18, p. 105-128, 2013.

LOPES, Mariú Moreira Madureira. A sensibilidade na tradução de textos sagrados. **Todas as Letras**, v. 11, n. 2, p. 62-73, 2009.

-----------. Linguagem, tradução e discurso religioso. In: CONGRESSO INTERNACIONAL DA ABRALIN, 7., 2011, Curitiba. **Anais**... Curitiba: Abralin, 2011. p. 3203-3211.

MILLER, George A. **The psychology of communication**: seven essays. New York: Basic Books Inc, 1967.

NAPIER, Jemina. 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. In: NICODEMUS, Brenda; SWABEY, Laurie (Ed.). **Advances in interpreting research:** inquiry in action. Amsterdam: John Benjamins, 2011. p. 121-153.

ORIGUELA, Daniella Avelaneda. Interpretação comunitária, direitos humanos e assistência social: proposta de política pública no contexto brasileiro. **TradTerm**, São Paulo, v. 23, p. 225-240, set. 2014.

PAGURA, Reynaldo. A interpretação de conferências: interfaces com a tradução escrita e implicações para a formação de intérpretes e tradutores. **D.E.L.T.A** [on-line], v. 19, n. spe., p. 209-236, 2003.

PAGURA, Reynaldo. **A interpretação de conferências no Brasil: história de sua prática profissional e a formação de intérpretes brasileiros**. 2010. 232 f. Tese (Doutorado em Letras) – Programa de Pós-Graduação em Estudos Linguísticos e Literários do Inglês, Departamento de Letras Modernas, Faculdade de Filosofia, Letras e Ciências Humanas, Universidade de São Paulo, São Paulo, 2010.

----------. A teoria interpretativa da tradução *(théorie du sens)* revisitada: um novo olhar sobre a desverbalização. **TradTerm**, São Paulo, v. 19, p. 92-108, nov. 2012.

PÖCHHACKER, Franz. **Introducing interpreting studies**. London: Routledge, 2004.

PÖCHHACKER, Franz. **Routledge Encyclopaedia of Interpreting Studies**. Amsterdam: Routledge, 2015.

SCARDAMALIA, Marlene; BEREITER, Carl. Literate expertise. ERICSSON, K. Anders; SMITH, Jacqui. **Toward a general theory of expertise**: prospects and limits. Cambridge: Cambridge University Press, 1991. p. 172-194.

SEEBER, Kilian G. Cognitive load in simultaneous interpreting. **Target**, v. 25, n. 1, p. 18-32, 2013.

SELESKOVITCH, Danica. **Interpreting for international conferences**. Washington: Pen and Booth, 1978.

SHIN, Hayne. **A research study on sermon interpreting in Korean churches**. 2013. 307 f. Tese (Doutorado em Interpretação e Tradução) – Ewha Womans University, Seoul, 2013.

SILVA, Paulo Henrique. **A interpretação intermitente de palestras motivacionais como performance dramática**. 2013. 33 f. Trabalho de Conclusão de Curso (Tradutor e Intérprete) – Centro Universitário Adventista de São Paulo, Engenheiro Coelho, 2013.

SIMMS, Karl (Org.). **Translating sensitive texts**: linguistic aspects. Amsterdam: GA, 1997.

SUSAM-SARAJEVA, Sebnem, PÉREZ-GONZÁLEZ, Luis. Non-professionals translating and interpreting: participatory and engaged perspectives. **The Translator**, v. 18, n. 2, p. 149-165, 2012.

WAGNER, Richard K. Managerial problem solving. In: STERNBERG, Robert J.; FRENSCH, Peter A. (Ed.). **Complex problem solving**: principles and mechanisms. Hillsdale: Lawrence Erlbaum Associates, 1991. p. 159-183.

Abstract

This article reports on an exploratory study aimed to investigate the profile and the interpretive process of three volunteer interpreters from an evangelical missionary church in Brazil. Building on a questionnaire and on an experiment (which also included translation students for the sake of comparison), it shows some characteristics of these individuals' type and mode of interpreting, and performance. The results shed some light on a practice that has been unexplored within Interpreting Studies.

Keywords: interpreting; religion; volunteer interpreting.

Resumo

Este artigo consiste em um estudo exploratório que investiga o perfil e o processo de interpretação de três intérpretes voluntários de uma igreja evangélica missionária no Brasil. Com base em um questionário e em um experimento (que também incluiu estudantes de tradução para fins de

comparação), mostram-se algumas características do desempenho e do tipo e modo de interpretação desses indivíduos. Busca-se, assim, fornecer subsídios iniciais para o entendimento de uma prática pouco estudada dentro dos Estudos da Interpretação.

Palavras-chave: interpretação; religião; interpretação voluntária.