PhD Dissertation Theses

Mária Bakti

Disharmonies in the target language output of simultaneous interpreters

Eötvös Loránd University
Faculty of Humanities
Doctoral School of Linguistics
Translation Studies Doctoral Programme

Budapest, 2010

Introduction

In spontaneous speech, speech planning and execution happen simultaneously; as a result, the parallel processes might not be perfectly coordinated and thus might result in disharmonies. In the surface structure disharmonies appear as disfluencies, including error type disfluencies (ETDs), disfluencies rooted in the uncertainty of the speaker (Gósy 2005), or as disharmonies at the suprasegmental level, e.g. stress placement errors (Gósy 2002). Research on disfluencies provides a valuable insight into the workings of the mechanisms involved in speech production:

> speech error regularities provide a valuable glimpse into the workings of the fluent sentence production mechanism, since the constraints they follow are presumably imposed by characteristics of the process by which normal, error-free speech is produced (Shattuck–Hufnagel 1979: 295).

The process of simultaneous interpreting (SI) is even more complex than that of monolingual speech production; during SI source language (SL) speech perception, translation, target language (TL) speech production and self-monitoring happen simultaneously, thus SI might be regarded as a psycholinguistic experiment (Klaudy 2004). In addition, a number of other factors appear to influence the process and product of SI: interpreters create the TL text based on an incomplete source language message, they have to constantly adjust the time lag to the tempo and the structure of the SL speech, and they have to complete the task using a limited supply of mental energy (G. Láng 2002). As a result of the simultaneity of processes involved in SI, disharmonies inevitably occur in the TL output of simultaneous interpreters, resulting in the incidence of disfluencies or suprasegmental disharmonies.

Theoretical background

The most widely accepted model of speech production to date is that of Levelt (1989). The key elements in Levelt's model of speech production include the *Conceptualizer*, where pragmatic and semantic planning take place, the *Formulator*, which is responsible for grammatical and phonological encoding, and the *Articulator*, where the motor execution of the phonetic plan takes place. The *Lexicon* stores the information required to turn an idea into an utterance.

The process of speaking is divided up into macroplanning and microplanning. During macroplanning, the speaker decides on the information to be expressed, and orders the information to be uttered (Levelt 1989: 138). Macroplanning is followed by microplanning. Based on the concepts of the preverbal message, the Formulator activates the lemmas belonging to the concepts from the Lexicon. Based on the syntactic information of lemmas, grammatical encoding of the surface structure of the utterance takes place. Grammatical encoding is followed by phonological encoding. Prior to articulation, the phonetic plan might be stored in the Articulatory Buffer. In order to start speaking, a part of the phonetic plan, at least one phonetic word, should be available in the Articulatory Buffer.

Self-monitoring is part of the speech production process. During semantic and grammatical encoding it is possible to correct the utterance within the conceptual and the grammatical system, during phonological encoding, self-monitoring happens with the help of the speech perception system.

According to Gósy, speech disfluencies are "generally defined as phenomena that interrupt the flow of speech and do not add propositional content to an utterance" (2007: 93). A possible taxonomy to deal with speech disfluencies is offered by Gósy (2004; 2005), the taxonomy is based on Levelt's model of speech production. The advantage of using this taxonomy is that it covers the widest possible range of disfluencies, and in this way helps to

gain a better insight into the processes of speech production. Gósy differentiates two major groups of speech disfluencies: (a) disfluencies rooted in uncertainty and (b) errors or error-type disfluencies. This taxonomy describes the major categories of uncertainty-related speech disfluencies as hesitations, fillers, restarts, repetitions, lengthenings and pauses within the word. Error-type disfluencies (ETDs) are Freudian slips, grammatical errors, contaminations, false word activations, "tip of the tongue" (TOT), changes, ordering problems and slips.

Disfluencies might be linked to malfunctions at different levels of the speech production system. Disfluencies related to the malfunctioning of the conceptual level of speech planning are Freudian slips. Malfunctions in the grammatical encoding process are manifested in grammatical errors and contaminations (lexical or structural blends). The next groups of ETDs are connected to malfunctions at the stage of lexical access, and include the ETDs of false word activation, TOT, and changes. The lack of coordination between lexical access and articulatory planning results in restarts, lengthenings, and pauses within the word. Ordering problems (anticipations, perseverations and metatheses) signal the malfunction of articulatory planning. Slips (additions, deletions, exchanges) occur when there is no coordination between articulatory planning and execution (Gósy 2005).

Disfluencies and SI

An analysis of disfluencies in the target language output of simultaneous interpreters may contribute to our better understanding of the target language speech production component of the process of SI; the malfunctions disfluencies signal may reveal problem areas in the target language speech production process.

In Interpreting Studies, research on slips and disfluencies includes the work of Petite (2005), who discusses repairs and self-monitoring in SI. However, the scope of her investigation goes beyond the repair of speech disfluencies to include post-articulatory appropriateness, error and other repairs (Petite 2005). Van Besien and Meuleman examine errors and repairs of speakers and their effects on the process of SI (Van Besien and Meuleman 2004).

Speech disfluencies occurring in the output of simultaneous interpreters have received some attention in the Interpreting Studies research community. Pöchhacker examines the speeches in a three-day conference and their renderings from the perspective of slips and shifts occurring in the output of simultaneous interpreters (Pöchhacker 1995). The language directions are English into German and German into English. The starting hypothesis is that the output of the speakers would be characterized by less slips and shifts than that of the interpreters. The interpreters' output is influenced by the speed of delivery of the speakers, and also by the complexity of the interpreting task. This leads to the second hypothesis, according to which the interpreters' output would be characterized by more slips and uncorrected slips. Pöchhacker works with the categories of *corrected and uncorrected slips* and *structure shifts (false starts, lexical blends and syntactic blends)*. The results show that, with the exception of uncorrected slips, more slips and shifts are found in the output of interpreters than in the output of speakers. The proportion of false starts is high, irrespective of speakers or language direction. Pöchhacker sees this as a universal of speech production, and not as a sole characteristic of SI (Pöchhacker 1995: 82). There are more simple slips and false starts in the output of speakers, whereas in the output of interpreters, the most frequent occurrence is blends and structural blends.

Tissi provides a descriptive analysis of silent pauses and disfluencies in SI. The central question of her paper is: To what extent do source text disfluencies affect comprehension and delivery in the target language? She attempts to come up with an SI-specific taxonomy for disfluencies. Tissi stresses the communicative value and the tactical use of disfluencies in the target language texts. She works with the following two major categories to describe

disfluencies: silent pauses (the two subcategories being grammatical and/or communicative pause and non-grammatical pauses) and disfluencies. The latter include filled pauses (further broken down into vocalized hesitations and vowel and consonant lengthenings) and interruptions (further broken down into repeats, restructuring and false starts). She finds large individual variations, and states that no clear trends can be identified (Tissi 2000: 122) and that the influence of the source text is not as direct as one would assume. She finds that vowel and consonant lengthenings are much more numerous in the target texts, and false starts occur only in the target texts (Tissi 2000: 120). Tissi also notes the communicative, sometimes even strategic use of some non-fluencies by the interpreter (e.g. silent or filled pauses before a correction), lengthenings of the tonic vowel, and retrospective repeats (Tissi 2000: 121).

Examining the English-Hungarian language pair, Tóth investigates the incidence of disfluencies in the target language output of trainee interpreters during an SI-task (2007).

The theoretical framework of our dissertation is provided by Setton's model of SI (1999), as it integrates and adapts Levelt's model of speech production to SI. Setton states that, because of its complexity, SI demands an interdisciplinary treatment, and that his model is "a hybrid of the best available theories" (1999:63).

Although the basis of the speech production component of Setton's model of SI is Levelt's model of speech production, certain modifications had to be made in order to tailor Levelt's model to the requirement of modeling SI. In Setton's model of SI, the role of Levelt's Conceptualizer is played by the Executive and the complete speech perception mechanism. During grammatical encoding, the structures, words, and intonations are selected to express the combined proportions, attitudes and intentions finalized in the Executive. Although Setton expects the main processing route to be via conceptual and intentional representations in successful SI, he also proposes several shortcuts; for example there might be a shortcut through which the Executive may take uncontextualized fragments from the Assembler to feed Formulation. Setton proposes that other shortcuts or short-circuits may be unwanted or unconscious, requiring special monitoring. An example is the lexical interference via wanted or unwanted cross-language connections (1999:95).Unwanted activation is caused by source language linguistic forms which remain active for a few seconds in auditory memory. Setton adds that cross-linguistic lexical links in his model can be inhibited only imperfectly and at a cost of some training and effort.

As concerns self-monitoring, Setton quotes Gerver (1976) when claiming that self-monitoring in SI might operate at two levels: pre- and postarticulation. According to Gerver, interpreters generate the target language response, test it, and if the response is approves, they utter it. After articulation, the uttered segment is tested again, and if it is unsuccessful, the interpreter creates a new response. In line with Gerver's observations, Setton's model of SI includes a self-monitoring loop, with a pre- and a postarticulatory branch.

Research questions

Research on disfluencies in the target language output of simultaneous interpreters examined only some of the categories of ETDs in the target language output of professional interpreters (Pöchhacker 1995), and looked at disfluencies related to uncertainty in consecutive (Mead 2000, 2002) and simultaneous interpreting (Tissi 2000). Tissi's investigations involved trainee interpreters, who have not yet acquired the subskills needed for SI. Pöchhacker looked at the target language output of professional interpreters in a conference setting, where a number of variables would influence the performance of interpreters. Previous studies on disfluencies in SI looked at the following language pairs: English-Italian, Italian-English (Tissi 2000, Mead 2000, 2002), English-German, German-English (Pöchhacker 1995), English-French, French-English (Piccaluga et al. 2007). In our dissertation, we examine the target language output of interpreters working from English into

Hungarian. Our objective is to investigate ETDs and disfluencies rooted in uncertainty in the target language output of simultaneous interpreters. Our research questions are: what ETDs occur in the target language output of simultaneous interpreters, and what are the most frequent ETDs in the target language output of simultaneous interpreters.

During SI, source language speech perception and target language speech production happen simultaneously, thus target language speech production is influenced not only by the deverbalized semantic representation of the source language text, but also by the linguistic form of the source language, and interference might result. Psycholinguistic investigations have not been exhaustive in this field, and they have not addressed the problem of how interference from the source language would be manifested in the ETDs in the target language. In our dissertation we examine CLI in the ETDs of target language output of simultaneous interpreters.

In Interpreting Studies, self-monitoring (Petite 2005) and disfluencies (Pöchhacker 1995, Tissi 2000) have been investigated, however these investigations did not answer the question of whether interpreters detect, repair and remember ETDs in their target language output. In our dissertation we use retrospective interviews to gain a better understanding of self-repair mechanisms during SI. Our research questions are whether interpreters repair ETDs in their target language output, and whether interpreters remember ETDs and their repair during SI.

The most frequent approach in Interpreting Studies to the ETDs in the target language output of simultaneous interpreters is to examine ETDs in target language texts in relation to the source language speech (Pöchhacker 1995, Van Besien and Meuleman 2004). In contrast to previous studies, our empirical studies compare ETDs in the target language output of simultaneous interpreters to the ETDs in the impromptu and extemporaneous speech of the same interpreters. This way we make an attempt at determining the characteristics of an SI-specific ETD-pattern.

The thematic structure of texts plays a role in both speech perception and speech production (Clark and Clark 1977, quoted by Pléh 1998). The thematic structure of source language texts determines the process of SI as well; our dissertation looks at the problem of how and to what extent does the thematic structure of the source language determines disfluencies in the target language.

One of the most controversial issues in Interpreting Studies is how and to what extent does directionality and language pairs determine the process and result of interpreting (Godijns and Hinderdael 2005). Our dissertation compares and contrasts ETDs in Hungarian, English and German target language texts.

In addition to disfluencies, we examined a further disharmonious phenomenon in the target language output of simultaneous interpreters, namely stress shifts. Research results in Interpreting Studies show that the target language output of simultaneous interpreters is characterized by salient features at the suprasegmental level. (Ahrens 2005, Shlesinger 1994, Williams 1995). In our dissertation we investigate the effects of the realization of source language stress on the target language stress patterns during SI.

Hypotheses of our empirical studies

1. Disfluencies. Based on studies examining speech production in noise (Gósy 2008) we expect that restarts and grammatical errors will be the most frequent ETDs in the target language output of simultaneous interpreters. As a result of the limited supply of mental energy available for the task of SI, the target language output of simultaneous interpreters will be characterized by the lack of grammatical coordination. The incidence of disfluencies rooted in uncertainty will, to some degree, be determined by the thematic structure of the

source language text. We expect that there will be more disfluencies in the target language output of trainee interpreters than in the target language output of professional interpreters.

2. Disfluencies and CLI. Our hypothesis is that there will be evidence of cross-linguistic influence (CLI) in the target language output of simultaneous interpreters (Toury 1995, Setton 1999). Some ETDs in the target language output of simultaneous interpreters will also be results of CLI.

3. Disfluencies and self-monitoring. Based on the Effort Models of Gile (1995), because of the complexity of the task of SI, interpreters will not always have the mental energy needed for self-monitoring, and as a result, they will not recognize and repair ETDs in their target language output.

4. Disfluencies and language pairs. We hypothesize that the disfluency pattern of the target language output of simultaneous interpreters will be similar, independent of language pairs, as this pattern is the result of the parallel and complex processes taking place during SI.

5. Disfluencies in the target language output and spontaneous speech of simultaneous interpreters. Spontaneous speech has several types, these include *extemporaneous speech*, when the speaker has the opportunity to prepare for speaking, and *impromptu speech*, where the speaker does not prepare for speaking. In Interpreting Studies, the target language output of simultaneous interpreters is regarded either as a form of impromptu speech (Barik 1972, Goldman-Eisler 1968, Seleskovitch 1982), or that of extemporaneous speech (Kopczynskí 1982). Our hypothesis was that there will be differences in the ETD-pattern of the target language output and the extemporaneous and impromptu speech of simultaneous interpreters. In their impromptu speech production, there will be more repetitions (Gyarmathy 2009), and the ETD-pattern of extemporaneous speeches will resemble that of the target language output of interpreters.

6. Relationship between the thematic structure of the source language text and disfluencies in the target language output of simultaneous interpreters. Independent of the genre of the source language text, the thematic structure of the source language text will influence the incidence of disfluencies in the target language output of interpreters.

7. Erroneous stress placement (ESP) in the target language output of simultaneous interpreters. Our hypothesis is that cross-linguistic influence will characterize the suprasegmental level of the target language output of interpreters (Ahrens 2005, Shlesinger 1994, Williams 1995), in the target language output of simultaneous interpreters erroneous stress placement will be the result of mirroring the stress patterns of the source language text.

Material, method, subjects

Our dissertation presents the results of our empirical studies. The subjects participating in the empirical studies were trainee interpreters from the Interpreter Training Programme of the University of Szeged (Ti1, Ti2, Ti3, Ti4, Ti5) and professional interpreters (Pi1, Pi2, Pi3, Pi4, Pi5). Both the trainee interpreters and the professional interpreters were invited to interpret English (their B language) source language texts into Hungarian (their A language). The target language texts were recorded and the texts were analyzed. ETDs in the target language texts were classified using the taxonomy of Gósy (2004). The reason for using Gósy's taxonomy in the analysis is that this taxonomy allows a more thorough analysis of speech production than the taxonomies used in previous studies on disfluencies in SI (Pöchhacker 1995). Each type of disfluency can be linked to a certain stage of the speech production process from conceptual planning through grammatical encoding to articulatory planning. Based on the analysis of disfluencies occurring in the target language output of interpreters, one can infer malfunctions at various stages of the speech production system.

In the course of investigations, the category of ETDs was complemented with the disfluencies restarts and repetitions, originally seen as disfluencies rooted in uncertainty of the speaker. Based on my experience in SI, however, I thought that complementing ETDs with these two categories would provide a more accurate and comprehensive picture of speech production during SI.

Table 1. summarizes the details of the empirical studies presented in the dissertation.

Chapter	**Interpreting situation**	**Source language → target language**	**Subjects**	**Study details**
Chapter 7.	Language laboratory	English (Pick Szeged) → Hungarian	Ti1, Ti2, Ti3, Ti4, Ti5 Pi1, Pi2, Pi3	Examination of ETDs in the target language texts.
Chapter 8.	Language laboratory	English (Pick Szeged) → Hungarian	Ti1, Ti3, Ti5, Pi1, Pi 2	CLI in the target language ETDs.
Chapter 9.	Language laboratory	English (Faith groups) → Hungarian	Pi1, Pi3, Pi4, Pi5	Target language ETDs and retrospection.
Chapter 10.	Conference	English →German German→ English (Pöchhacker-corpus)		ETDs in English and German target language texts.
Chapter 11.	Language laboratory	-	Pi1, Pi3, Pi4, Pt5	ETDs in the impromptu and extemporaneous speech of interpreters.
Chapter 12.	Language laboratory	English (Pick Szeged) → Hungarian English (Faith groups) → Hungarian	Pi1, Pi2, Pi3, Pi4, Pi5 Ti4, Ti5	Relationships between source language thematic structure and disfluencies in the target language texts.
Chapter 13.	Language laboratory	English (Faith groups) → Hungarian	Pi1, Pi3, Pi4, Pi5	Erroneous stress placement in the target language texts.

Table 1. Summary of the empirical studies presented in the dissertation

Results

1. Disfluencies. The most frequently occurring disfluencies in the target language output of both professional interpreters and trainee interpreters were restarts. In the target language output of professional interpreters grammatical errors ranked second, followed by false word activation. In the target language output of trainee interpreters, false word activation and grammatical errors had approximately the same frequency of incidence. Restarts are the results of the lack of coordination between lexical access and articulatory planning. Uncertainties in articulation are the consequences of the malfunctions of articulatory planning (Gósy 2005:103). This uncertainty during SI might be caused by the

complexity of the task and the fact that interpreters use all of the mental energy available for the task.

A more thorough analysis of restarts in the target language output of simultaneous interpreters was carried out. Professional interpreters restarted words most frequently after uttering the first sound of the activated word. Among trainee interpreters restarts after the first sound or the first syllable of the activated word were also quite frequent. Restarts after uttering the first sound of an activated word also signal TOT phenomena, in other words, the speaker has activated the lemma, but has problems accessing the corresponding lexeme (Gósy 2005). Problems in activating target language equivalents might be the reason behind the high proportion of restarts in the target language output of simultaneous interpreters; restarts following the utterance of the first sound of the activated word might signal problems of lexical access or uncertainty. Source language grammatical structures might lead to some of the grammatical errors in the target language output of simultaneous interpreters.

False word activation is a malfunction of lexical access. The high proportion of false word activations among the ETDs in the target language output of simultaneous interpreters might be explained by the fact that during SI, interpreters have to activate both the target language and source language linguistic subsystems. Among professional interpreters, the proportion of false word activation is lower than in the target language output of trainee interpreters, which might be explained by the fact that among professionals the subskills of SI are automatic, and the finding of target language equivalents requires less mental energy.

The disfluency / 100 words rates were lower in the case of professional interpreters than among trainee interpreters, which might be explained by the fact that the subskills of SI are automatic among professional interpreters. Another possibility is that experienced professional interpreters are less nervous before the interpreting task than trainee interpreters.

2. Disfluencies and CLI. There were only a handful of examples of ETDs rooted in CLI in the target language output of trainee interpreters and professional interpreters; however, their analysis might contribute to a better understanding of the mental processes involved in SI. CLI in ETDs provide evidence that deverbalization (Lederer 1978, Seleskovitch 1978) does not always happen during SI. Our results indicate, in line with the findings of Isham (1994), that during SI interpreters do not always deverbalize; deverbalization is one possible strategy interpreters use. It is also important to note that CLI in ETDs characterized mainly the target language output of trainee interpreters. The reason behind this might be that deverbalization is a strategy interpreters acquire gradually. Our results support the subset hypothesis of Paradis (2004), and provide further empirical support for the existence of shortcuts between the source language and the target language subsystems described by Setton (1999).

CLI in ETDs mainly concern compound words, where interpreters start interpreting based on the source language words, and not on the basis of the deverbalized semantic representation of the compound. In a second group of examples of CLI in ETDs source language elements remain active in the target language as well, and are visible parts of contaminations and false word activations.

3. Disfluencies and self-monitoring. The investigations described in chapter 7 of the dissertation were repeated; the analysis of the target language texts shows that the most frequent ETDs in the target language output of interpreters were restarts, grammatical errors and changes.

In the repeated investigation we examined the repair of ETDs. In the target language output of simultaneous interpreters, the most frequently occurring ETDs were restarts, grammatical errors and changes. Changes and restarts are repaired by definition. Our corpus included only a small number of ETDs that do are not repaired. In addition, interpreters did not refer to repairs of ETDs in the retrospective interviews. As a result, we were not able to

draw general conclusions about repair mechanisms of ETDs in the target language output of simultaneous interpreters.

4. Disfluencies and language pairs. The analysis of ETDs in German and English target language texts seems to reveal a SI-specific disfluency pattern, which is less determined by language pairs, and is more determined by the complex process of SI. In the German and English target language texts, the proportion of restarts is rather high, independent of language pairs. Grammatical errors were frequent in both the German and the English target language texts. The appearance of these ETDs is partly explained by the characteristics of SI as secondary speech production, including split attention, the length of the EVS, and the limited supply of mental energy available for the task.

5. Disfluencies in the target language output and spontaneous speech of simultaneous interpreters. ETDs were more frequent in the impromptu and extemporaneous speech production of interpreters than in their target language output. In the impromptu and extemporaneous speech production of interpreters repetitions were more frequent than in the target language output of interpreters. Repetitions signal uncertainty of the speaker (Gyarmathy 2009).

Restarts characterized the output of interpreters in all three speaking conditions; they were most frequent in the target language texts, followed by impromptu and extemporaneous speech production. The ETD-pattern of the target language texts resembled that of impromptu speech. Comparing our results with those of Hungarian studies on spontaneous speech (Gósy 2003, Horváth 2004, Markó 2004, Szabó 2004) is difficult, as these studies mapped spontaneous speech production under different circumstances from out study.

6. Relationship between the thematic structure of the source language text and disfluencies in the target language output of simultaneous interpreters. Examining pauses and other disfluencies in the target language output of simultaneous interpreters indicate that, in addition to other factors, the thematic structure of the source language texts determine the acoustic-phonetic properties and disfluencies of simultaneously interpreted target language texts to some extent. 62% of the theme-rheme boundaries were characterized by disfluencies rooted in uncertainty. Pauses at the theme-rheme boundary might be communicative pauses, or might indicate rheme loss. The word order of Hungarian allows for the exchange of theme and rheme, thus providing some flexibility for the interpreters.

Our results indicate that the thematic progression of the source language text might be considered as one of the several factors influencing the units of interpreting in SI. The communicative pauses might be regarded as pauses indicating the boundaries of units of interpreting. In cases when the there is a long theme in the source language and the interpreter pauses within the theme, the theme-rheme boundaries are also marked by pauses. In addition, the theme-rheme boundaries are marked by pauses even if parts of the rheme are lost.

7. Erroneous stress placement in the target language output of simultaneous interpreters. Our results show that, similarly to the findings of Ahrens (2005), Shlesinger (1994) and Williams (1995), the stress patterns of the target language output of simultaneous interpreters are determined to some extent by the stress patterns of the source language texts. In SI, anomalous stress is claimed to be the result of the adjustment of pitch by the speaker to the pitch of the person he/she is talking to (referred to as F0 mirroring by Williams) and the tendency to use the sound of one's own voice to automatically monitor and adjust subsequent speech production (Williams 1995). This might be caused by the processing of source language suprasegmentals and their effect on target language speech production.

Our hypothesis that pitch would play a role in the ESP in simultaneous interpreting from English into Hungarian, is only partially confirmed by the data. In our corpus, there were cases of ESP where prominence of the stressed syllable was achieved via pitch, however, there were also cases where prominence was achieved via intensity.

One of the most important findings concerning pitch mirroring is that in 41.3% of the cases of erroneous stress placement the interpreters achieved prominence of the stressed syllable via changes in pitch, which is quite unusual in Hungarian, where prominence of the stressed syllable is achieved predominantly via changes in intensity.

Our data also suggest that in SI, where the almost all of the available mental energy is required to complete the task (Gile 1995), inhibiting interference from the source language on the target language output of interpreters is more difficult in areas of speech production to which the monitor is less sensitive; one of these areas is suprasegmentals, more precisely stress placement in the target language. No instances of self-corrections of the ESPs occurred in the target language output of the interpreters.

In Hungarian, however, where stress is achieved primarily through intensity, F0 mirroring alone can not explain stress shifts in the target language texts. When interpreting from English into Hungarian, the interpreters perceive changes in pitch in the stressed syllables of the source language text, then in their speech planning process in Hungarian they have to convert these changes in pitch into an increase in intensity on the appropriate syllable of the appropriate word in the target language. This, however, does not always happen without problems; in our examples there were cases of ESP where pitch played an important role in generating stress. That is why we looked at the reasons behind ESPs from a semantic point of view as well. There are some stress placement errors in the target language output of interpreters, which can not be explained by stress patterns in the source language only. These resemble ESPs occurring in the speech of native speakers of Hungarian described by Gósy (2002). In addition to interference from the source language, interpreters in some cases placed stress erroneously to locations where native speakers of Hungarian would place erroneous stress to. These include stress placement on the suffix or erroneous stress in compound words.

References

Ahrens, B. 2005. Prosodic Phenomena in Simultaneous Interpreting: A Conceptual Approach and its Practical Application. *Interpreting.* 7(1). 51−76.

Barik, H. C. 1972. Interpreters Talk a Lot, Among Other Things. *Babel.* 18(1). 3−10.

Clark, H. and Clark, E. 1977. *Psychology and Language: An Introduction to Psycholingusitics.* New York: Harcourt.

G. Láng, Zs. 2002. *Tolmácsolás felsőfokon: a hivatásos tolmácsok képzéséről*. Budapest: Scholastica.

Gerver, D. 1976. Empirical Studies of Simultaneous Interpretation: A Review and a Model. In: Brislin, R. (eds.) 1976. *Translation. Application and Research.* New York: Gardner Press. 165−207.

Gile, D. 1995. *Basic Concepts and Models for Interpreter and Translator Training*. Amsterdam Philadelphia: John Benjamins.

Godijns, R. and Hinderdael, M. (eds.) 2005. *Directionality in Interpreting. The 'Retour' or the Native?* Gent: Communication and Cognition.

Goldman-Eisler, F. 1968. Sequential Temporal Patterns and Cognitive Processes in Speech. *Language and Speech.* 10 (3). 122−132.

Gósy, M. 2002. A hangsúlyeltolódás jelensége. In: Balázs, G. Jászó, A., Koltói, Á. (szerk.) 2002. *Éltető anyanyelvünk.* Budapest: Tinta Könyvkiadó. 193–198.

Gósy, M. 2003. A spontán beszédben előforduló megakadásjelenségek gyakorisága és összefüggései. *Magyar nyelvőr* 127. évf. 3. szám. 257−277.

Gósy, M. 2004. A spontán magyar beszéd megakadásainak hallás alapú gyűjteménye. In: Gósy, M. (szerk.) 2004. *Beszédkutatás 2004. „Nyelvbotlás"-korpusz, tanulmányok.* Budapest: MTA Nyelvtudományi Intézet. 6−18.

Gósy, M. 2005. *Pszicholingvisztika.* Budapest: Osiris Kiadó.

Gyarmathy, D. 2009. A beszélő bizonytalanságának jelzései: ismétlések és újraindítások. In: Gósy, M. (szerk.) 2009. *Beszédkutatás 2009.* Budapest: MTA Nyelvtudományi Intézet. 196−216.

Horváth V. 2004. Megakadásjelenségek a párbeszédekben. In: Gósy, M. (szerk.) 2004. *Beszédkutatás 2004. „Nyelvbotlás"-korpusz, tanulmányok.* Budapest: MTA Nyelvtudományi Intézet. 187−199.

Isham, W. 1994. Memory for Sentence Form after Simultaneous Interpretation: Evidence for both for and against Deverbalization. In: Lambert, S. and Moser-Mercer, B. (eds.) 1994. *Bridging the Gap. Empirical Research into Simultaneous Interpretation.* Amsterdam: John Benjamins. 191−211.

Klaudy K. 2004. *Bevezetés a fordítás elméletébe.* Budapest: Scholastica.

Kopczynsky, A. 1982. Effects of some characteristics of impromptu speech on conference interpreting. In: Enkvist, N. (ed.) 1982. *Impromptu speech: A symposium.* Abo: Abo Akademi. 255−266.

Lederer, M. 1978. Simultaneous Interpretation – Units of Meaning and other Features. In: Gerver, D. and Sinaiko, W. (eds.) 1978. *Language Interaction and Communication.* New York: Plenum Press. 323−332.

Levelt, W. J. M. 1989. *Speaking. From Intention to Articulation.* Cambridge MA: MIT Press.

Markó A. 2004. Megakadások vizsgálata különféle monologikus szövegekben. In: Gósy, M. (szerk.) 2004. *Beszédkutatás 2004. „Nyelvbotlás"-korpusz, tanulmányok.* Budapest: MTA Nyelvtudományi Intézet. 209−222.

Mead, P. 2000. Control of pauses by trainee interpreters in their A and B languages. *The Interpreters' Newsletter.* (10). 89−102.

Mead, P. 2002. Exploring hesitation in consecutive interpreting: An empirical study. In: Garzone, G. és Viezzi, M. (eds.) 2002. *Interpreting in the 21st Century. Challenges and Opportunities*. Amsterdam: John Benjamins. 73−82.

Paradis, M. 2004. *A Neurolinguistic Theory of Bilingualism.* Amsterdam: John Benjamins.

Petite, C. 2005. Evidence of repair mechanisms in simultaneous interpreting: A corpus-based analysis. *Interpreting*. 7(1). 27−49.

Piccaluga, M., Nespoulous, J., Harmegnies, B. 2007. Disfluency surface markers and cognitive processing. In: *The Proceedings of the 16th ICPhS*.

Pléh, Cs. 1998. A megértés fogalma a pszicholingvisztikában. In: Pléh Cs. és Győri M. (szerk.) 1998. *A kognitív szemlélet és a nyelv kutatása.* Budapest: Pólya Kiadó. 205−220.

Pöchhacker, F. 1995. Slips and Shifts in Simultaneous Interpreting. In: Tommola, J.(ed.) 1995. *Topics in Interpreting Research.* Turku: The University of Turku, Centre for Translation and Interpreting. 73−90.

Seleskovitch, D. 1978. Language and Cognition. In: Gerver, D. and Sinaiko, W. (eds.) 1978. *Language Interaction and Communication.* New York: Plenum Press. 333−341.

Seleskovitch, D. 1982. Impromptu speech and oral translation. In: Enkvist, N. (szerk.) 1982. *Impromptu speech: A symposium.* Abo: Abo Akademi. 241−253.

Setton, R. 1999. *Simultaneous Interpretation. A cognitive-pragmatic analysis.* Amsterdam: John Benjamins.

Shattuck-Hufnagel, S. 1979. Speech Errors as Evidence for a Serial-Ordering Mechanism in Sentence Production In: Cooper, W. and Walker, E. (eds.) 1979. *Sentence Processing: Psycholinguistic Studies Presented to Merrill Garrett.* Hillsdale NJ: Lawrence Earlbaum.

Shlesinger, M. 1994. Intonation in the production and perception of simultaneous interpretation. In Lambert, S. and Moser-Mercer, B. (eds.) 1994. *Bridging the gap: Empirical research in simultaneous interpretation.* Amsterdam: John Benjamins. 225−236.

Szabó, E. 2004. Megakadásjelenségek nyelvi játék közben. In: Gósy, M. (szerk.) 2004. *Beszédkutatás 2004. „Nyelvbotlás”-korpusz, tanulmányok.* Budapest: MTA Nyelvtudományi Intézet. 200−208.

Tissi, B. 2000. Silent pauses and disfluencies in simultaneous interpretation: A descriptive analysis. *The Interpreters' Newsletter*. (10). 103−127.

Tóth, A. 2007. Megakadás-jelenségek kimutatása a szinkrontolmácsolás célnyelvi beszédfolyamatában szinkrontolmácsolási korpusz alapján. In: Tóth, A. (szerk.) 2007. *Alkalmazott nyelvészeti konferencia füzetei. IX. Dunaújvárosi Nemzetközi Alkalmazott Nyelvészeti, Nyelvvizsgáztatási és Medicinális Lingvisztikai Konferencia.* Dunaújváros: Dunaújvárosi Főiskola Kiadói Hivatala. 48−53.

Toury, G. 1995. *Descriptive Translation Studies and beyond*. Amsterdam: John Benjamins.

Van Besien, F. and Meuleman, C. 2004. Dealing with Speakers' Errors and Speakers' Repairs in Simultaneous Interpretation. A Corpus-based Study. *The Translator*. 10(1). 59−81.

Williams, S. 1995. Observations on anomalous stress in interpreting. *The Translator*. 1(1). 47−64.

Publications related to the dissertation

Bakti, M. and Bóna, J. 2010. Szinkrontolmácsolás és forrásnyelvi műfajok. Az aktuális tagolás akusztikai-fonetikai sajátosságai különböző műfajú szinkrontolmácsolt szövegekben. In: Károly, K. és Fóris, Á. (szerk.) 2010. *Nyelvek találkozása a fordításban. Doktori kutatások Klaudy Kinga tiszteletére.* Budapest: ELTE Eötvös Kiadó. 19−33.

Bakti, M. 2009c. Megakadások a szinkrontolmácsok spontán beszédében. In: Gósy, M. (szerk.) *Beszédkutatás 2009. Helyzetkép a beszédtudományról.* Budapest: MTA Nyelvtudományi Intézet. 217−227.

Bakti, M. 2009b. Speech disfluencies in simultaneous interpretation. In: De Crom, D. (ed.) *Translation and the (Trans)formation of Identities. Selected Papers of the CETRA Research Seminar in Translation Studies 2008.*
http://www.kuleuven.be/cetra/papers/papers.html

Bakti, M. 2009a. Speech disfluencies and retrospection in simultaneous interpreting. In: Váradi, T. (szerk.) *Válogatás az I. Alkalmazott Nyelvészeti Doktorandusz Konferencia előadásaiból.* Budapest: MTA Nyelvtudományi Intézet. 12−21.

Bóna, J. and Bakti, M. 2009. A beszédtempó és a megakadásjelenségek összefüggései szinkrontolmácsolás során. In: Lengyel, Zs. and Navracsics, J. (szerk.) *Tanulmányok a mentális lexikonról. Nyelvelsajátítás, beszédprodukció, beszédpercepció.* Budapest: Tinta Könyvkiadó. 280−289.

Bakti, M. 2008. Megakadásjelenségek a szinkrontolmácsolásban. *Fordítástudomány.* 10(2). 22−38.

Kusztor, M. and Bakti, M. 2007. Megakadásjelenségek németre és angolra szinkrontolmácsolt szövegekben. In: Gósy, M. (szerk.) *Beszédkutatás 2007.* Budapest: MTA Nyelvtudományi Intézet. 121−133.

Bakti, M. 2007b. Interferenciális nyelvbotlások a szinkrontolmácsolásban. In: Heltai, P. (szerk.) *Nyelvi modernizáció. Szaknyelv, fordítás, terminológia*. MANYE Vol. 3. 625−629.

Bakti, M. 2007a. Retrospektív interjúk a szinkrontolmácsolás kutatásában. In: Váradi, T. (szerk.) *I. Alkalmazott Nyelvészeti Doktorandusz Konferencia Előadásai*. Budapest: MTA Nyelvtudományi Intézet. 12−23.