

SKILLS RETENTION IN SIMULTANEOUS INTERPRETING FROM/INTO ENGLISH: EVIDENCE FROM FLUENCY IN THE TASK PERFORMED BY INTERPRETER GRADUATES

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Abstract. *The article involved considerations of skills retention in simultaneous interpreting from/into English performed by interpreter graduates who did not practice simultaneous interpreting after their graduation. The article examined whether or not a two year hiatus in their interpreting career had an impact upon the interpreter graduates' fluency in interpretations from and into English. Four interpreter graduates were matched with four professional interpreters, four advanced students of interpreting and four beginner students of interpreting who performed one simultaneous interpretation from English into Ukrainian and one simultaneous interpretation from Ukrainian into English respectively. The output data were quantitatively analysed in software programs PRAAT and MatLab. Results of the data analysis indicated that fluency measures identified in the interpreter graduates' output were similar to those of the professional interpreters.*

Key words: *simultaneous interpreting, skills retention, fluency, English, interpreter graduates, PRAAT, MatLab, speech fluency measures*

1. INTRODUCTION

The acquisition of skills in simultaneous interpreting is a gradual process, which develops over many years (Setton 1999). Once these skills are acquired, they must be maintained and retained by the students who graduate from interpreter training programmes and commence working as professional simultaneous interpreters. In terms of the interpreter's skills retention, the critical question is whether or not the interpreter's learning trajectory terminates upon the completion of the interpreting programme. Current literature in the field of Translation and Interpreting studies does not provide an exhaustive account of skills retention of those interpreter graduates who discontinued practicing interpreting after their graduation (Macnamara et al. 2011). However, the phenomenon of interpreter graduates who discontinued practicing interpreting does exist. In today's global job market, there are multiple reasons as to why interpreter graduates have never chosen to practice interpreting upon graduation. The discontinuity between the study of interpreting and practicing interpreting on the professional level can be accounted by such factors as pregnancy, obligatory military service, family circumstances, inability to find a job, or another career path. Given a relatively unexplored nature of interpreting skills retention after a hiatus period, the study of the interpreter graduates within the context of discontinuity is the main focus of the present article. The interpreter graduates' skills retention after their professional hiatus will be explored by measuring their fluency in the interpretation tasks from and into English.

Arguably, the dynamics of skills acquisition in simultaneous interpreting follow the generic processes of learning, maintaining and forgetting. Skills growth and skills decline are considered to be normal phenomena in Dynamic Systems Theory and in Cognitive Psychology respectively (de Bot et al 2013; Rohrer et al. 2005). Presumably, skills retention in simultaneous interpreting is not a constant variable. It is dynamic and is influenced by the immediate context. For instance, skills in simultaneous interpreting can be regarded as an iterative process, whence the present level of skills development depends critically on the previous levels of the language mastery and specific skills development (e.g., long-term memory skills, concentration, motivation, the ability to work under fatigue, etc.) and any change depends on the impact of internal and external resources available to the interpreter. Arguably, the interpreter's skills are characterised by a developmental complexity involving a variety of contexts (e.g., educational, linguistic, skill-specific, personal) which interact and re-enforce each other in a given context. Hence, skills growth, sustainability and retention involve context sensitivity. Following this line of argument, it is hypothesised that a substantial and on-going language exposure to the interpreter's working languages helps sustain previously acquired skills in simultaneous interpreting. Consequently, it can be assumed that the interpreter's fluency in the task of simultaneous interpretation is a function of the degree of contextual support provided by an on-going language exposure to the interpreter's working languages. This assumption is partially based on the observation that skills retention grows over time through extensive experience in a consistent environment, according to the power law of practice (Rohrer et al. 2005). Presumably, the interpreter's functionality in simultaneous interpreting is possible even if the interpreter has discontinued practicing interpreting professionally, but has been enjoying an active language exposure to the interpreter's working languages. Hence, the interpreter's skills retention in simultaneous interpreting in the absence of the interpreting practice per se involves a compensatory mechanism in the form of the extensive language exposure. To verify this assumption, an empirical study was designed and carried out with a group of interpreter graduates who have not practiced simultaneous interpreting after their graduation from the interpreting programme. This study is presented and further described in the article.

2. HYPOTHESIS

The hypothesis was based upon the Dynamic Systems argument involving a non-linear compensatory relationship between the variables in skills acquisition (de Bot et al. 2013). Presumably, if one of the variables in the system was inoperative, its functions were compensated by other variables. Hence, it was hypothesised that if the interpreter graduates did not practice simultaneous interpreting after their graduation, but nevertheless enjoyed an on-going exposure to their working languages, then their skills retention in simultaneous interpreting would be sustained by their operative language skills, even though their interpreting skills were inoperative. The verification of the hypothesis relied on the computer-assisted investigation of the interpreter graduates' speech fluency in simultaneous interpretation tasks. In particular, speech fluency measures were deemed to be indicative of the interpreter graduates' skills retention in simultaneous interpretation. Speech fluency measures were assumed to determine

whether or not the interpreter graduates' performance in simultaneous interpretation would be similar or different in comparison with the following control groups: professional simultaneous interpreters, advanced interpreter students and beginner interpreter students respectively.

3. PARTICIPANTS

Four interpreter graduates (all females, M age = 24.5 y.o.) were matched with their respective controls, four professional interpreters (one male, three females, M age = 28.4 y.o.), four advanced interpreter students (all females, M age = 22 y.o.) and four beginner interpreter students (all females, M age = 19 y.o.). Four interpreter graduates (further referred to as IG) graduated from tertiary-level Interpreting and Translation programme two years prior to the experiment. Within those two years IG reported no engagement in simultaneous interpreting. The language pair combination of IG and their respective controls was English/Ukrainian. IG reported to be early balanced Russian/Ukrainian bilinguals. Two IG were employed at secondary schools as teachers of English, another two IG were employed at Ukrainian diplomatic missions abroad with institutionalised requirement of using English, Ukrainian and Russian for professional purposes. IG's real names were coded to ensure confidentiality. The controls were coded as followed: beginner interpreter students (BI), advanced interpreter students (AI) and professional interpreters (PI).

4. MATERIALS

The source texts in English and in Ukrainian respectively were identical in duration (4 minutes each). The source texts were original short speeches taken from authentic press conferences in English and Ukrainian respectively pertaining to the topic of the global climate change.

5. PROCEDURE

Interpreter graduates (IG) and their respective controls were tested individually in Kyiv (Ukraine) in 2013. The experimenter was the only other person present at the test session. Prior to completing the experimental tasks, IG and their respective controls were asked introductory questions in English pertaining to their educational and professional background, their expertise at simultaneous interpreting, their command and usage of their working languages respectively. The experimental tasks involved one simultaneous interpretation from English into Ukrainian and one simultaneous interpretation from Ukrainian into English. The IG's and their respective controls' interpretations were recorded by a solid state recorder and analysed.

6. DATA ANALYSIS

The analysis involved a computer-assisted identification of pauses and speech segment duration in the IG's and the controls' interpretations in speech processing program PRAAT (Boersma & Weenink 2011). Then, the speech and pause data were statistically analysed in statistical software program MatLab (Mathworks 2005). A detailed account of the speech and pause analysis procedure was provided in Kapranov (2009) and in Kapranov (2013) respectively.

7. RESULTS

Data analysis in MatLab yielded statistics presented below in Table 1 and Table 2 respectively. Table 1 involved statistical measures in simultaneous interpretation from English into Ukrainian by all four groups: interpreter graduates, beginner students, advanced students and professional interpreters.

Table 1 Group means in simultaneous interpretation from English into Ukrainian

Measure/Group	Interpreter Graduates (IG)	Beginner Students (BI)	Advanced Students (AI)	Professional Interpreters (PI)
Total time	3.8 min	3.4. min	3.6 min	4.1. min
% speech time	69%	37%	47.4%	74%
% pause time	31%	63%	52.6%	26%
M long pause	0.6 sec	2.4 sec	1.9 sec	0.5 sec
M speech segment	1.2 sec	1.3 sec	1.6 sec	1.6 sec
Speech/pause ratio	1.8 log	1.1 log	1.6 log	2.1 log

Table 2 involved statistical measures in simultaneous interpretation from Ukrainian into English by all four groups (interpreter graduates, beginner students, advanced students and professional interpreters respectively).

Table 2 Group means in simultaneous interpretation from Ukrainian into English

Measure/Group	Interpreter Graduates (IG)	Beginner Students (BI)	Advanced Students (AI)	Professional Interpreters (PI)
Total time	3.7 min	3.7 min	3.9 min	3.9 min
% speech time	71%	40%	51%	72 %
% pause time	29%	60%	49%	28%
M long pause	0.8 sec	2.7 sec	1.7 sec	0.6 sec
M speech segment	1.4 sec	0.9sec	1.2sec	1.5 sec
Speech/pause ratio	2 log	0.8log	1.2log	2 log

8. DISCUSSION

The argument presented in the hypothesis suggests that the interpreter graduates' (IG) skills retention in simultaneous interpreting after a period of discontinuity in practicing and studying simultaneous interpreting is supported by the IG's feedback from the daily exposure to their working languages (English and Ukrainian respectively). The IG's skills retention in simultaneous interpreting is manifested by their functional performance in the experimental tasks (one simultaneous interpretation from English into Ukrainian and one simultaneous interpretation from Ukrainian into English respectively). Specifically, results of the data analysis indicate that IG's functional performance in simultaneous interpretation tasks is characterised by the fluency level which is similar to that of professional interpreters (PI). Even though IG's fluency measures are not statistically significant in comparison with the control groups, the results are nevertheless suggestive of IG's superior speech fluency compared with the beginner students and advanced students of interpreting. These measures involve percentage of speech and pause time respectively, mean long pause duration, mean speech segment duration and speech/pause ratio respectively. Prior to discussing these measures in much more detail, it should be reiterated that during two years of absence of both the teacher-student feedback in academic settings and interpreter-target audience feedback in professional settings, there has been an on-going feedback from the IG's language contexts. IG report an on-going extensive exposure to both the English and Ukrainian languages on a daily basis. Presumably, it enables IG to retain their previously acquired interpreting skills which have been de-activated during the discontinuity period. From a Dynamic Systems perspective, language use and language input are vital for language maintenance (de Bot et al. 2013). This view is supported by previous research in Translation and Interpreting studies confirming the importance of adequate linguistic skills for simultaneous interpreters (Macnamara et al. 2011). It can be assumed that IG's active usage of their working languages (English and Ukrainian respectively) has prevented an abrupt breakdown in their skills in simultaneous interpreting tasks. Hence, IG's absence of professional engagement in simultaneous interpreting is compensated by continuous language input which has led to consolidation effects in the language use and to superior fluency measures compared with the control groups involving beginner students and advanced students respectively. Specifically, superior fluency measures involve less pausing and more speaking in the experimental tasks.

Given that pausing is thought to be associated with the cognitive planning of speech and decision making (Golman-Eisler 1972), an increase of pauses in the interpreter's output is indicative of increased cognitive demands on the interpreter. It is argued that an increase in the length and number of pauses in the interpreter's output is suggestive of higher cognitive demands to formulate, structure or plan the output (Goldman-Eisler 1972). In particular, long pauses are thought to be suggestive of various kinds of speech and/or cognitive problems simultaneous interpreters experience in the production of their output. IG's output in both the interpretation from English into Ukrainian and Ukrainian into English is characterised by less pausing (both in terms of the percentage of pausing as well as in terms of shorter duration of long pauses) compared with the control groups involving beginner students and advanced students respectively. Compare, for instance, percentage of pause time in simultaneous interpretation from English into Ukrainian in the output of IG (31 %), beginner students (63%) and advanced students (52.6%) on the one hand, and percentage of pause time in simultaneous interpretation from Ukrainian

into English in the output of IG (29%), beginner students (60%) and advanced students (49%) on the other hand. Irrespective of the directionality of the interpretation, IG pause less and, consequently, produce more speech than the student control groups. However, IG's pausing is inferior compared with the fluency measures identified in the professional interpreters' output, e.g. IG (31%) and professional interpreters (26%) in simultaneous interpretation from English into Ukrainian. Identical tendency is observed in simultaneous interpretation from Ukrainian into English, namely IG (29%) and professional interpreters (28%).

IG's functional speech fluency is evident from the measure of speech/pause ratio, i.e. the relation of the total speaking time to the total pause time. Speech/ratio is measured in log time in this article to enable comparison with previous studies where this measure has been described. Empirical evidence indicates that speech/pause ratio values above 1.2 in log time are considered to be associated with fluent speech (Cocks & Kirsner 2007). Following these findings, IG's speech can be classified as functionally fluent in simultaneous interpretations from English into Ukrainian (1.8 log time) and in simultaneous interpretations from Ukrainian into English (2.0 log) respectively. Note that IG's mean speech/pause ratio values are similar to the professional interpreters' means, e.g. 2.1 log time in simultaneous interpretations from English into Ukrainian and 2 log time in simultaneous interpretations from Ukrainian into English.

Presumably, IG's superior speech fluency measures are a result of efficient resource allocation and/or absence of significant performance deficiencies. Arguably, IG's and professional interpreters' superior fluency performance in the tasks can be accounted by the following factors: i) their extensive language competencies; ii) their vast amount of encyclopaedic knowledge as well as their effective retrieval of encyclopaedic knowledge and iii) their skills specific to simultaneous interpreting. As known, the interpreter's understanding depends on the knowledge of the interpreter's working languages, knowledge of the subject-matter, circumstances of the message and encyclopaedic knowledge (Setton 1999). Hence, it can be assumed that both IG and professional interpreters possess a considerable repertoire of encyclopaedic knowledge. Presumably, IG have accumulated and refined this knowledge during the time after their graduation. In addition, IG have been exposed to recursive and multiple contexts of using English to stabilise and generalise their encyclopaedic knowledge and to be able to verbalise it fluently.

IG's skills retention is exemplified by longer mean speech segment duration compared with the beginner and advanced students in both the experimental tasks. Mean speech segment durations in IG's output exhibit a tendency to be similar to mean speech segment duration of the professional interpreters. Specifically, mean speech segment duration in the interpretation from English into Ukrainian is 1.2 sec (IG) and 1.6 sec (professional interpreters), whilst in simultaneous interpretation from Ukrainian into English mean speech segment duration is 1.4 sec (IG) and 1.5 sec (professional interpreters). Experienced interpreters and translators have been reported to operate with larger speech segments, spread out evenly in the speech stream (Setton 1999). Presumably, the increased length of speech segment duration is related to the proceduralisation of lexical, syntactic and discourse items, or to the interpreter's specific speech production under time pressure (i.e. to the interpreter's specific skills). With experience and practice, experienced interpreters seem to access and retrieve lexical-syntactic discourse chunks as one unit (Timarová & Salaets 2011). Arguably, this leads to longer speech segment durations identified in IG's and professional interpreters' output respectively.

9. CONCLUSION

The article involved considerations of skills retention in simultaneous interpreting from/into English performed by interpreter graduates who did not practice simultaneous interpreting after their graduation. It was hypothesised that the interpreter graduates' skills retention in simultaneous interpreting after a period of discontinuity in practicing and studying simultaneous interpreting would be supported by the daily exposure to the interpreter graduates' working languages. The verification of the hypothesis involved a computer-assisted analysis of the interpreter graduates' and their respective controls' speech stream. It was assumed that pauses in the interpreter graduates' speech stream would indicate whether or not the interpreter graduates' speech fluency would be functional in the interpretation tasks. Interpreter graduates' functional speech fluency would be suggestive of skills retention in simultaneous interpreting, retained even after a hiatus period. Results of the data analysis obtained in PRAAT (Boersma & Weenink 2011) and MatLab (Mathworks 2005) supported the hypothesis. The interpreter graduates' speech fluency in the interpreting tasks was found to be functional and similar to the speech fluency measures identified in the professional interpreters' output. Those findings would suggest that interpreter graduates would be able to perform simultaneous interpreting after a period of hiatus, provided they enjoyed an on-going extensive exposure to their working languages during the period of discontinuity of practicing simultaneous interpreting.

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