SUMMARY OF DOCTORAL THESIS

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PRACTICAL AND COGNITIVE MECHANISMS IN READING FOR TRANSLATION

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1. Introduction

The linguistic and extra-linguistic factors of translation as a purposeful activity can equally be studied in terms of the purpose, the process and the product of the activity. Although the purpose, which is unrelated to language, the linguistic process, which is determined by the purpose, and the cognitive content encoded in linguistic form as the product of the process are all of relevance, it is the process that most markedly sets translation – as linguistic and cultural mediation – apart from other forms of human activity. This process is, in essence, based on coordinated discourse-processing, code-switching and discourse-production mechanisms. Consequently, in addition to discourse-production mechanisms and related target-language discourse-production strategies (investigated by numerous researchers in the field of translation studies) and code-switching (with all its intricacies), discourse-processing mechanisms and related reading strategies deserve considerable attention, too, as they form an integral part of the multifaceted process of written linguistic mediation. These discourse-processing mechanisms and reading strategies are also of great significance in terms of three basic facets of the complex phenomenon that is translation, i.e. the practice of translation, translator training and translation research – and it is these discourse-processing mechanisms and reading strategies that constitute the object of the gap-filling research on reading for translation, as presented in the thesis described below.

1.1 Relevance of the research

With respect to the practice of translation, Samuel Johnson’s observation that “The greatest part of a writer’s time is spent in reading, in order to write […]” (Boswell 1858, p. 113) seems highly fitting, since the 18th century British writer’s statement is especially accurate when applied to the translator, who, in effect, cannot give form to content without reading first, i.e. without deciphering the thoughts of the author from the text to be translated. However, reading in translation covers more than decoding the message encoded in the source text, as it plays a role in every single phase of the translation process: from the preliminary skimming of the source-language text to the complete review of the target-language text deemed to be the final version of the translation. Accordingly, in addition to procedures performed in order to make sense of the source text, other discourse-processing procedures also play a significant role in translation. One such procedure is that of review, which is carried out in the final phase of translation, with related reading operations acting as a filter to facilitate the perception of potential content- and language-related errors that stem from operations executed in earlier
phases of the translation process (possibly even in the *discourse-production* phase) – this procedure, then, fundamentally determines the quality of the product of translation. Thus, in the multi-phase process of translation, the final word, just like the first word, is not the word written but the word *read* by the translator.

As for the *training* of competent professionals with practical skills, capable of performing translation activities, the extensive professionalisation of translator training increasingly demands the transcendence of the traditional view that in order to develop the skills necessary for translation it is enough to merely practice translation. When it comes to training professional translators, in this day and age skill development entails significantly more than doing regular translation work as a form of practice. Correspondingly, translator training is ideally based on a theoretical foundation that allows for the clear specification of every skill and sub-skill to be acquired by future translators (Kiraly 1995). As Campbell (1998) notes, translator training should first and foremost aim at facilitating the acquisition and enhancement of those partially independent *sub-skills* that constitute translation competence, as there may be differences in one’s ability to apply different sub-skills, and, as a result, the improvement of specific sub-skills may require specifically tailored approaches. Setting the discourse-processing phase (i.e. the phase relevant to the present research) apart from the discourse-production phase for didactic purposes is thus also justified. In this respect, Gile (1995) specifically emphasizes the significance of drawing a line between the discourse-processing and the discourse-production phase of translation: in his view, the conscious separation of these two phases forces the translator to be more thorough in their analysis in the phase of discourse-processing, and it also reduces the risk of interference in the discourse-production phase. In analysing the classic transformational model of translation, as conceived by Nida (1969), Klaudy (1999) comes to a similar conclusion, stating that viewing source-language comprehension as intralingual transformation is highly beneficial in terms of training because if the transformation of source-language surface structures into deep structures is carried out independent of target-language text production (that is, if making sense of the source text is not governed by factors related to target-language discourse-production), then the process should result in a fuller understanding of the source text.

In addition to the practical and didactic significance of studying reading for translation, the theoretical aspects of such study, i.e. aspects related to *translation research* in general, also deserve attention, as the study of reading for translation facilitates the methodical classification of the various types of reading involved in translation, while also shedding new light on such fundamental mechanisms of cognition as recollection, comprehension or code-switching.
Accordingly, since the exploration of relevant phenomena requires the application of research methods used in cognitive and psycholinguistic research, research on reading for translation may also be conducive to making methodological criteria prevalent in psychology research gain ground in the field of translation studies, thereby allowing for the scientific and empirical verification of findings previously based only on personal experience and intuition.

Such considerations notwithstanding, translation researchers generally focus little attention on the role of reading in translation, consequently, there is a relative dearth of empirical studies on the subject: Macizo & Bajo 2004, 2006, 2009 (cf. Shreve et al. 1993). Even more problematic is the fact that the term reading for translation tends to be used in an exceedingly narrow sense in international translation research, generally taken to refer solely to the processing and interpretation of the source-language text. This is in stark contrast with what is implied by the definition formulated within the theoretical framework of the present study, according to which source-text processing and interpretation are regarded as analytical reading for translation, which is just one of the seven types of reading that make up reading for translation. Still, most observations made about reading for translation imply a narrow interpretation of this complex type of reading. Hatim & Mason (1990), for example, highlight the fact that the translator reads the source text with the purpose of producing the target text and therefore processes the material more deeply and consciously than the average reader. This kind of conscious or deliberate analysis is also at the heart of Gile’s (1995) theory, while Macizo & Bajo (2004, 2006) also focus on source-text processing, when they investigate source-language sentence processing in their empirical studies. Yet there are some researchers who do discuss other types of reading in their study of reading for translation, but they usually do so without elaborating on the exact nature of such types. Nida (1964), for instance, considers the preliminary skimming of the source text, the reading of background material related to the source text, the review of the target text and the reading aloud of the final version of the target text all to be separate phases in the nine-phase process of translation. Preliminary skimming of the source text also constitutes the object of studies conducted by Krings (1986) to investigate translators’ strategies in skimming, while target-text review is at the centre of research carried out by Zhang (1997), who discusses how the source text and the target text are compared by the translator in terms of their aesthetic effect. Nonetheless, so far there has been no study that either classifies every type of reading involved in reading for translation or offers a comprehensive analysis of relevant reading types and their potential interactions in the process of translation. This is in spite of the fact that, in light of the preceding paragraphs, the
need to systematically and thoroughly map the area is evident on several levels of the complex phenomenon that is translation.

1.2 Objectives of the research

The comprehensive research presented in the thesis described in the present summary may be defined specifically as a piece of research in the field of translation studies, however, it does make use of theories and methods applied in other relevant fields of research in order to fill the gaps pointed out above. To fill the gaps, the research includes a study of theoretical and practical issues related to those reading processes that are integral to written linguistic mediation, and it also explores cognitive mechanisms relevant to the discourse-processing operations executed during interlingual mediation. In line with this general objective, the comprehensive theoretical and empirical study of reading for translation, construed in a broad sense, entails the formulation of the following specific aims.

- A multifaceted analysis and classification of reading operations executed during the translation process – within the framework of devising a comprehensive taxonomy of the types of reading that constitute reading for translation
- A comprehensive study of professional practices pertaining to the application of the types of reading that constitute reading for translation and to the utilization of relevant reading strategies – within the framework of a questionnaire-based study
- An empirical study of source-text processing – within the framework of a large-scale psycholinguistic study
- An empirical study of the perception of target-language typographical errors by the translator – within the framework of a small-scale psycholinguistic study

1.3 Structure of the thesis

Following the introductory chapter, Chapter Two of the thesis presents the theoretical background of the research, covering translation, along with the interdisciplinary branch of knowledge that is translation studies (i.e. a discipline that allows for the study of the function, the process and the product of translation). In addition, the second chapter also offers an overview of relevant findings from reading-related cognitive research, while providing a detailed description of the process of reading. Chapter Three, the central chapter of the thesis, describes the original research on reading processes and reading strategies in translation. The
section on the theoretical study of reading in translation offers a reinterpretation and definition of the concept of reading for translation, outlines a comprehensive taxonomy of the types of reading that constitute reading for translation, and provides a thorough account of every type of reading involved in translation. The section on the empirical study of reading for translation presents a questionnaire-based study as well as two psycholinguistic studies: while the questionnaire-based study explores professional practices pertaining to the application of the types of reading analysed, the two psycholinguistic studies aim at exploring 1) the retention of mental representations resulting from source-text processing, and 2) the perception of target-text typographical errors by the translator, respectively. The final chapter of the thesis contains the conclusions drawn from the findings of the research, and it describes prospects for additional research on the subject, outlining potential objects of and directions for further research.

2. Theoretical Background

Chapter Two of the thesis outlines the theoretical background of the original research presented in the thesis. Although, in terms of cognition, the ability to read is a precondition of the ability to translate, in the thesis the discussion of translation-related issues precedes the discussion of cognitive factors related to reading, as the research presented belongs to the field of translation studies (and not psycholinguistics or cognitive psychology per se), consequently, the reading process is interpreted in a translation-specific manner: as a component of the complex translation process, or in other words, a factor subordinate to the general purpose of linguistic mediation. Correspondingly, the present research may be regarded as a piece of research in translation studies in the sense that it focuses on the phenomenon of translation and utilizes findings from the independent discipline concerned with translation, i.e. translation studies (as defined by Snell-Hornby 1988, Baker 1998 and Gile 2001), while also drawing on theories and methods from other disciplines (psycholinguistics and cognitive psychology, in particular) to purposely expand the set of tools used to study the phenomenon in question.

2.1 On translation and translation studies

The section covering the relevant translation-related theoretical background of the research provides a definition of the concept of translation, and it investigates various factors and dimensions of written linguistic mediation, including the interlingual, the intercultural and the professional dimension of the phenomenon. This is followed by a thorough account of the
function, the process and the product of translation, with the function analysed in relation to source-text content, linguistic functions and practical purposes, the process studied along the lines of its service-related, communicative, linguistic and cognitive aspects, and the product explored in terms of being dependent, partially reproduced and produced, explicit, normalized and potentially quasi-correct. The section concludes with a description of the most prevalent classification of the various branches of translation studies as an independent discipline, along with an overview of the general features of translation studies research, with special reference to the interdisciplinary and practical nature of the discipline.

2.2 On the cognitive aspects of reading

The section on the translation-related background of the research (Section 2.1) discusses several topics that highlight the inherently complex nature of the translation process as a whole. However, the various components of the process, and among them analysis or discourse-processing (i.e. the component relevant to the present research), are complex in themselves, consequently, ‘general’ reading, which forms the basis of reading for translation, may also be studied on several levels and from various aspects. Nonetheless, since the research presented in the thesis (as a piece of research on cognitive and practical mechanisms in reading for translation) primarily entails a functional and cognitive approach, the section on reading theory focuses on the various functions of reading and the exploration of cognitive mechanisms in reading, without any reference to historical, pedagogical or literary research in reading research and without discussing the neuronal basis of reading. Correspondingly, following a summary definition of key concepts related to the linguistic system and a brief description of relevant semantic and pragmatic factors, the section focuses on such basic processes and systems of cognition as memory, mental representation and conceptual organization. These concepts are then scrutinized as part of a detailed analysis of the reading process, covering mechanisms related to eye-fixation, decoding, meaning construction, sentence processing, comprehension and foreign-language comprehension. With respect to comprehension, the facilitating effect of coherence and conceptually driven mechanisms is highlighted, and various models of reading are presented, with an in-depth analysis of the respective mechanisms of propositional representation and dual-coding. Regarding the process of foreign-language comprehension, the analysis focuses on bilingual dual-coding and various theories on the nature of bilingual mental representation.
3. The Research

While the chapter on the theoretical background of the research covers respective mechanisms in reading and translation, the chapter that presents the original research sheds light on the encounter between such mechanisms, investigating how reading and translation mechanisms interact with each other to form the basis of reading for translation. The related theoretical study described in the thesis involves the exploration of the general features of translation-specific discourse-processing and offers a reinterpretation of reading for translation, providing a precise definition of the concept. This is followed by a classification and analysis of the various types of reading that constitute reading for translation, with an overview of relevant findings concluding the section on the theoretical study. The section on the empirical study, which comprises three separate studies, provides a detailed description of a questionnaire-based study as well as a small-scale and a large-scale psycholinguistic study. The comprehensive questionnaire-based study charts reading strategies and procedures pertaining to the application of the types of reading that constitute reading for translation; the large-scale psycholinguistic study assesses the retention of mental representations resulting from translation-specific discourse-processing procedures governed by the purpose of discourse-production (i.e. translation-specific analytical reading); the small-scale study assesses translators’ performance in the perception of typographical errors in the target-language text, as measured by a test.

3.1 A theoretical study of reading for translation

Based on the theoretical study of the object of the research, as presented in detail in the thesis, it can be established that reading for translation is rooted in reading operations executed as part of reading procedures that are determined by local and global reading strategies. These operations are carried out in order to complete reading tasks associated with various reading purposes such as the interpretation, comprehension and evaluation of the source text, the target text and other texts; the exploration of the formal and affective dimensions of the texts; and the identification of specific items in the texts. The operations primarily rely on mechanisms related to decoding, comprehension, selection, inference, schema-activation, code-switching, interference and affective functioning, and they entail the application of various types of reading that may be characterised in terms of the phase in which relevant operations are executed, as well as the relevance, specificity and cognitive dimension of such operations (the efficient execution of which requires various translation-specific sub-competences). These
reading types (i.e. translation-specific skimming, translation-specific reading for information, translation-specific reading for pleasure, translation-specific analytical reading, translation-specific scanning, translation-specific proofreading and translation-specific reading for typographical errors) collectively constitute reading for translation, a complex and multi-faceted type of reading governed by the general purpose of translation and determined by general and translation-specific sub-purposes. Correspondingly, the product of the reading process in translation is the sum of the output of interacting reading operations related to several types of reading – in other words, it is a set of mental representations resulting from the processing of the source text, the target text and other texts, with this set of internal representations subsequently taking linguistic form in the target text as an external representation. In its final version, then, this target text is the result of a text-production process dependent on a preceding processing of the source text and other texts (in the form of translation-specific skimming, reading for information, reading for pleasure, analytical reading and scanning), combined with the processing of the target text (in the form of translation-specific proofreading, reading for typographical errors and reading for pleasure). Accordingly, reading for translation may be defined as follows.

**Definition: Reading for translation** is a set of strategically coordinated reading operations (manifested in the multi-level cognitive processing of written texts) executed by the translator in various phases of the translation process – with the purpose of skimming texts, reading texts for information, reading texts for pleasure, analysing texts, scanning texts, proofreading texts and reading texts for typographical errors – in order to carry out a commission to produce a target-language text.

The above interpretation of *reading for translation* differs from the generally accepted interpretation of the concept in several respects. It is commonly held that the primary characteristic of reading for translation is that the processing of the source text is determined by the purpose to produce the target text, hence it implies a more thorough and accurate comprehension and interpretation of the text than usual processing – see Hatim & Mason’s (1990) as well as Gile’s (1995) translation-related and Gósy’s (2005) psycholinguistic approach. While this approach – which is also reflected in empirical studies conducted by Shreve et al. (1993) and Macizo & Bajo (2004, 2006) – also suggests that the object of discourse-processing in translation is a single text, namely, the source text, the present study highlights the fact that discourse-processing in translation covers the target text and other texts in addition to the
source text. Moreover, findings from the study reveal that reading for translation is not governed solely by the purpose of analysis and interpretation (an aim realized through the execution of reading operations related to the type of reading termed analytical reading for translation within the framework of the theoretical study) but by other purposes as well, namely, skimming, gathering information, seeking pleasure, analysis, scanning, proofreading and finding typographical errors. These purposes – inherent in the process of translation – determine what types of reading to apply, thus the process of reading for translation (construed as a complex set of reading operations manifested in the multi-level cognitive processing of written texts) implies the application of several types of reading (see Table 1). These types are:

- **translation-specific skimming**, which is used for extracting the gist of the source text and other texts, and also for identifying source-text items relevant to target-text production,

- **translation-specific reading for information**, which is used for acquiring information related to the topic of the source text, for uncovering the meaning of specific source-language lexical items, and for gathering information about language use in the target language – via the processing of texts other than the source text and the target text,

- **translation-specific reading for pleasure**, which is used for assessing and comparing the aesthetic and affective effect of the source text and the target text,

- **translation-specific analytical reading**, which is used for comprehending and interpreting the source-language text with the purpose of text production in the target language,

- **translation-specific scanning**, which is used for identifying relevant lexical items or explicit and implicit content denoted by such items,

- **translation-specific proofreading**, which is used for finding potential errors of content, spelling mistakes, stylistic errors, etc. in the target text,

- **translation-specific reading for typographical errors**, which is used for finding potential typographical errors (additions, omissions, transpositions, etc.) in the target text.
Table 1
The practical manifestation and general function of the types of reading that constitute reading for translation

<table>
<thead>
<tr>
<th>Type of Reading</th>
<th>Practical Manifestation</th>
<th>General Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translation-specific skimming</td>
<td>Reading of ST</td>
<td>Acquisition of information</td>
</tr>
<tr>
<td>Translation-specific reading for information</td>
<td>Reading of any text</td>
<td>Acquisition of information</td>
</tr>
<tr>
<td>Translation-specific reading for pleasure</td>
<td>Reading of ST and TT + parallel reading of ST and TT</td>
<td>Assessment and comparison of effect</td>
</tr>
<tr>
<td>Translation-specific analytical reading</td>
<td>Reading of ST</td>
<td>Comprehension and interpretation</td>
</tr>
<tr>
<td>Translation-specific scanning</td>
<td>Reading of any text</td>
<td>Identification of textual items</td>
</tr>
<tr>
<td>Translation-specific proofreading</td>
<td>Reading of TT and TT + parallel reading of ST and TT</td>
<td>Checking</td>
</tr>
<tr>
<td>Translation-specific reading for typographical errors</td>
<td>Reading of TT</td>
<td>Checking</td>
</tr>
</tbody>
</table>

3.2 An empirical study of reading for translation

To complement the theoretical study outlined in the preceding section, the thesis also includes a section on three empirical studies, presenting a questionnaire-based study and two test-based studies. The large-scale questionnaire-based study aims to explore professional practices related to the application of the types of reading that constitute reading for translation, in order to ascertain what proportion of professional translators (grouped in the study according to specific criteria) and translators in training make use of each type of reading, and with what specific purpose and what strategy. It is one of these types of reading which is related to the phenomena explored in the first of the two psycholinguistic studies: by testing the retention of mental representations resulting from analytical reading for translation, the large-scale psycholinguistic study serves to reveal the memory-related aspects of translation-specific discourse-processing carried out with the express purpose of target-language discourse-production. Memory-related mechanisms play an important role in the other study, too: the
A small-scale psycholinguistic study provides an insight into connections between bilingual dual-coding, memory and translation-specific proofreading and reading for typographical errors, by testing translators’ perception of typographical errors in the target text.

3.2.1 A questionnaire-based study of the practical application of the types of reading that constitute reading for translation (Study No. 1)

This section describes a questionnaire-based study that complements the theoretical study on reading for translation in order to empirically explore the main features of professional practices related to the application of reading types that constitute the complex type of reading that is reading for translation. The purpose of the questionnaire-based study is to provide a different perspective on the facts uncovered in the theoretical study described in Part 1 of Chapter 3 of the thesis, in other words, to empirically confirm and augment the observations made about reading for translation, by gathering and processing information provided by professional translators and translators in training about their practical experiences related to reading for translation.

3.2.1.1 Objectives

Classified under process-oriented descriptive translation studies, the study aims to ascertain 1) what proportion of professional translators and translators in training make use of the types of reading that constitute reading for translation, 2) with what specific purpose, and 3) with what strategy. The study also intends to explore the correlation between the application of the various reading types (i.e. translation-specific skimming, translation-specific reading for information, translation-specific reading for pleasure, translation-specific analytical reading, translation-specific scanning, translation-specific proofreading and translation-specific reading for typographical errors) and 1) the amount of professional experience of the translator (as measured in years), and 2) the regular working conditions of the translator (as defined in terms of being either regulated office work at an agency/institution or unregulated freelance work done in a home environment on one’s own schedule).

3.2.1.2 Method

A total of 121 subjects participated in the cross-sectional study: 107 professional translators and 14 translator trainees, trained in a postgraduate translator training programme. However, in terms of finding answers to the research questions formulated, it is primarily the answers
provided by the 107 professional translators that are relevant, as a result, it is these subjects that constitute the main sample, divided into 3 and 2 separate groups, based on professional experience and regular working conditions, respectively (see below).

**Professional experience:**
- 1–5 years: 35 persons
- 5–10 years: 36 persons
- Over 10 years: 36 persons

**Working conditions:**
- Unregulated: 71 persons
- Regulated: 36 persons

The **instrument** used in the study is a questionnaire consisting of two separate sets of questions. The first set contains a series of open and closed questions concerning the respondent and their professional experience. The second set comprises 7 items pertaining to the seven types of reading that constitute reading for translation, with each item containing either 1 question or 2 to 3 interrelated questions, amounting to a total of 10 closed questions, coupled with corresponding options to choose from. Responding to the questions thus requires choosing from a predefined set of options. The **procedure** used in the study involved making a written request to members of the population from which the sample was drawn to voluntarily respond to the questions in the questionnaire (which was distributed in electronic form via e-mail). Although the questionnaire was anonymous, with an option to voluntarily indicate initials, in reality, only the condition of confidentiality was met, since the e-mail addresses of the respondents became known to the researcher due to the way the completed questionnaires were returned.

### 3.2.1.3 Results

The corresponding section of the thesis contains a detailed account of quantified results obtained through the manual processing of responses to the 10 questions that constitute the 7 items that make up the second set of questions in the questionnaire. Relevant data are presented item by item, with questions and options cited word for word for each item. To ascertain the statistical significance of potential differences in the distribution of answers given by subjects that belong to different groups based on their professional experience and working conditions, respectively, a chi-square test ($\chi^2$-test) was applied (with a level of significance of 0.05), with adjusted standardized residuals (ASR) also taken into account (with a level of significance of $|2|$).
3.2.1.4 Discussion

The findings of the study – carried out to investigate professional practices related to the application of the reading types that constitute the complex type of reading that is reading for translation – indicate several differences in how reading procedures are applied by translators according to various reading strategies. On the one hand, certain procedures (related to specific reading types) are more prevalent in general (i.e. across the entire sample), on the other hand, there are statistically significant differences between sub-populations (i.e. between groups of subjects) in the application of certain procedures. In addition, analysis of the data gathered and processed shows that the observations made about the various reading types that constitute reading for translation (as defined in the theoretical study) reflect actual practice accurately, as the reading strategies, procedures and operations referred to in the questions of the questionnaire are all utilized by the subjects in the sample – albeit to a varying degree and in varying ways, depending on a range of factors. In the final analysis, the following general conclusions may be drawn with respect to the 121-member sample of professional translators and translators in training.

1. In certain cases, the utilization or non-utilization of translation-specific reading strategies, procedures and operations depends on the features of the source text, i.e. length, subject, genre/type (see translation-specific skimming, reading for information, reading for pleasure and proofreading).

2. In certain cases, professional experience in translation determines the purpose and method of the utilization of translation-specific reading strategies, procedures and operations (see translation-specific proofreading).

3. In certain cases, the working conditions of the translator determine the purpose and method of the utilization of translation-specific reading strategies, procedures and operations (see translation-specific skimming, reading for pleasure, scanning and reading for typographical errors).

4. In certain cases, there are differences between professional translators and translators in training (i.e. trainees participating in a translator training programme) in the utilization of translation-specific reading strategies, procedures and operations in reading for translation (see translation-specific skimming, reading for pleasure and proofreading).
In conclusion, it has to be noted that although the size of the sample used in the study is relatively large in comparison with the general size of samples typically used in translation studies research, the sample cannot be regarded as being representative in every respect, due to its composition. In addition, the representativeness of the findings cannot be verified, as there is no itemized and authoritative register of data on the entire population of translators. As a result, the findings of the study cannot be generalized.

3.2.2 A test of target-language text retention (Study No. 2)

3.2.2.1 Objectives

Based on a psychological testing procedure, the large-scale study aims to measure the retention of mental representations resulting from the process of analytical reading for translation. By empirically comparing text retention related to reading for the purpose of interlingual translation with text retention related to reading for the purpose of intralingual paraphrasing, the study investigates how the result of discourse-processing carried out with the purpose of discourse-production correlates with the utilization of interlingual mechanisms (i.e. the code-switching implied by the purpose of translation), with the result determined by measuring the recall and recognition of textual items. Correspondingly, the hypotheses of the study – formulated in relation to observations based upon the pieces of cognitive and translation research cited in Section 3.2.2 of the thesis – are as follows:

- The recognition and recall of textual items following reading exhibits a difference, when reading for the purpose of translation and reading for the purpose of paraphrasing are compared.

- Reading for the purpose of translation results in a measurably longer retention of memory traces than reading for the purpose of paraphrasing.

3.2.2.2 Method

A total of 100 subjects participated in the study, all of them native speakers of Hungarian. The instrument used was a 15-page test (printed in A4-size, i.e. not electronically displayed), with the main items of the test comprising 2 pairs (4 pieces) of texts in Hungarian. For each pair, the register, structure and length of the texts are nearly identical and their subject very similar. In the case of both pairs of texts, one pair is to be read with the purpose of paraphrasing, while the other with the purpose of translation into English. In addition to the recognition and
recall tasks relevant to the correlational study, the test contains various discourse-comprehension, discourse-production and mathematical tasks, which serve as distractor tasks. The test was used in a **procedure** methodically devised in a series of trials with several subjects.

### 3.2.2.3 Results

In the case of the 1st **pair of texts**, a paired t-test was applied to the two statistical sets of results measured in the recognition task (i.e. results derived from the number of items recognized following reading in the case of *reading for the purpose of paraphrasing* and *reading for the purpose of translation*, respectively) to ascertain the significance of the difference between the two variables (i.e. the mean of the results measured in the case of *reading for the purpose of paraphrasing* and *reading for the purpose of translation*, respectively). The paired t-test showed a highly significant difference between the two variables ($t(99)=5.556; p<0.01$): the number of correctly recognized textual items following reading is significantly higher in the case of reading for the purpose of translation than in the case of reading for the purpose of paraphrasing (see *Table 2* and *Figure 1*).

#### Table 2

**Summary of test results – Pair No. 1**

<table>
<thead>
<tr>
<th>Task</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraphrasing</td>
<td>3.57</td>
<td>100</td>
<td>.81</td>
<td>.08</td>
</tr>
<tr>
<td>Translation</td>
<td>4.06</td>
<td>100</td>
<td>.88</td>
<td>.08</td>
</tr>
</tbody>
</table>

#### Figure 1

**Recognition of textual items depending on purpose of reading**

![Recognition of textual items depending on purpose of reading](image-url)
In the case of the 2nd pair of texts, a paired t-test was applied to the two statistical sets of results measured in the free-recall task (i.e. results derived from the number of items recalled following reading in the case of reading for the purpose of paraphrasing and reading for the purpose of translation, respectively) to ascertain the significance of the difference between the two variables (i.e. the mean of the results measured in the case of reading for the purpose of paraphrasing and reading for the purpose of translation, respectively). The paired t-test showed no significant difference between the two variables ($t(60)=1.121; p=0.267$): although the number of correctly recalled textual items following reading is higher in the case of reading for the purpose of translation than in the case of reading for the purpose of paraphrasing, the difference is not statistically significant (see Table 3 and Figure 2).

**Table 3**

Summary of test results – Pair No. 2

<table>
<thead>
<tr>
<th>Task</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraphrasing</td>
<td>6.18</td>
<td>61</td>
<td>2.29</td>
<td>.29</td>
</tr>
<tr>
<td>Translation</td>
<td>6.39</td>
<td>61</td>
<td>2.41</td>
<td>.30</td>
</tr>
</tbody>
</table>

**Figure 2**

Recall of textual items depending on purpose of reading
3.2.2.4 Discussion

The results of the correlational study show that there may be a difference in the recognition and recall of textual items following reading, when reading for the purpose of translation and reading for the purpose of paraphrasing are compared, but this difference is dependent on the features of the text processed. In the case of the 2nd pair of texts, which consisted of a single sentence and contained relatively little information to process, there was no significant difference in recall performance, while in the case of the 1st pair of texts, which were longer and contained more sentences to be interpreted by the reader than the other two texts, recognition performance was significantly higher when reading was done with the purpose of translation than when it was done with the purpose of paraphrasing. Thus, the results of the test support the hypotheses formulated only in the case of the 1st pair of texts.

In all probability, the results measured in the case of the 1st pair of texts (i.e. the significant variation in recognition performance) may be attributed to the number of linguistic codes activated during the processing of the texts, since it is the same person who reads both texts that constitute the pair (texts A and B), and the two texts show no differences that affect recognition (as verified by the results of a separate test conducted to check for validity). Hence, the only significant difference in reading the two texts is that, in one case, reading is done with the purpose of paraphrasing (therefore it is an intralingual process that entails the activation of a single linguistic code), while in the other, it is done with the purpose of formulation in another code (i.e. interlingual translation), which implies the activation of two different linguistic codes. The concurrent activation of the two codes means that relevant concepts (conceptual units) are signified by two signs (lexical units) at the same time, resulting in a richer and more differentiated mental representation than representation in the case of the activation of one code (cf. Paivio & Desrochers 1980). This is primarily due to the fact that signs belonging to two different languages may signify partially different conceptual features, producing different semantic associations in each language (cf. Kroll & De Groot 2007). More specifically, a word in one language and its equivalent in another language may not necessarily activate the same features in the two languages: for example, the English word bread and the French word pain may evoke a different ‘image’ of bread in the mind, which is to say that the meaning of these two words is not fully identical (see Arnedt & Gentile 1986). With respect to meaning, the findings of Sadoski & Paivio (2004) indicate that the construction of meaning relies on the establishment of connections between representational units of the verbal (lexical) system and the non-verbal (conceptual) system, with the two
systems interacting with each other as follows: an activated linguistic unit referentially activates the corresponding non-linguistic unit, the same non-linguistic unit then activates other non-linguistic units through association, and these units in turn activate additional linguistic units. However, in the case of reading for the purpose of translation, a third system (i.e. a second verbal system: the target language) is also activated in addition to the previously activated verbal and non-verbal systems, with referential and associational mechanisms triggered in the target-language system, too (cf. Paivio & Desrochers 1980, Paivio & Lambert 1981). According to Paivio (1986), this concurrent functioning of the two linguistic systems has an additive effect in terms of retention, and, as a result, the recall of items encoded in more than one linguistic system is higher than the recall of items encoded in just one system. Paivio & Lambert (op. cit.) have also empirically verified the effect produced by this kind of bilingual dual-coding: in their experiment with words, they showed that the activation of two linguistic codes in the processing of words results in increased retention and higher recall rates than the activation of a single code. The present study not only supports the findings of Paivio & Lambert (op. cit.) in the case of the 1st pair of texts but also complements it by showing that the effect of bilingual dual-coding on memory appears on the level of discourse as well. This means that bilingual dual-coding plays an important role in the formation of the representation of the entire discourse, with such representation being the result of the referential and associational processing of the series of items (words, phrases, sentences, etc.) that constitute the discourse. However, the results obtained in the case of the 2nd pair of texts call for the refinement of these observations.

In contrast with the results measured in the case of the 1st pair of texts, the results obtained in the case of the 2nd pair of texts indicate that the purpose of translation does not significantly affect the recall of items in the text processed. There may be several explanations for this. On the one hand, the slight (i.e. statistically insignificant) differences in recall following reading for the purpose of paraphrasing and reading for the purpose of translation, in this case, may be related either to the material used or to the procedure applied. On the other hand, the result could be a consequence of the mechanism by which code-switching transpires during reading. Hence, the first reason is methodological in nature: as 4 minutes were allotted to process each single-sentence text, texts C and D (the same amount as in the case of the longer texts, texts A and B), the amount of time available may have allowed for the repeated execution of processing operations, and this could have compensated for the lack of the effect of bilingual dual-coding mechanisms in the case of reading for the purpose of paraphrasing. In contrast, the other possible reason is implicit in the nature of the very phenomenon under
study. According to Paivio & Desrochers (1980) as well as Paivio & Lambert (1981), the
verbal systems used by an individual are not only connected to the non-verbal system but also
to each other: there may be direct verbal connections between the two linguistic systems used,
which means that code-switching may entail the activation of verbal links between L1 and L2,
without the non-verbal system being activated. Consequently, connections between L1 and L2
signs and concepts, and connections between L1 signs and L2 signs may both play a role in
the formation of bilingual representations – depending on the strategies applied by the
language user (Hoffmann 1991), on the one hand, and the nature of the concepts signified, the
existence or non-existence of direct lexical connections between the languages involved, and
the level of competence of the individual in L2 (cf. Kroll 1993, Hummel 1993), on the other
hand. Accordingly, if the process of translation is based on establishing connections between
source-language signs and target-language signs (cf. Komisszarov (1985 [1972]), then
automatic processing operations will prevail over those non-automatic (i.e. conscious)
operations (cf. Jääskeläinen 1999) that may involve the kind of deeper semantic analysis (as
defined by Craik & Lockhart 1972) that is conducive to an increased retention of memory
traces. However, the study should be repeated with other subjects in order to allow for general
conclusions to be drawn about the respective effects of reading for the purpose of discourse-
production and bilingual dual-coding on text retention.

3.2.3 A test of the perception of typographical errors in the target-language text (Study No. 3)

The corresponding section of the thesis presents a study that serves as a complement to the
theoretical studies on translation-specific proofreading and reading for typographical errors
(both of which are carried out in the final phase of translation), empirically investigating the
translator’s perception of potential typographical errors in the target text.

3.2.3.1 Objectives

The purpose of the study is to compare the performance of the text producer (as a writer and
as a translator) in perceiving typographical errors during self-review of the text produced,
when the text is the product of translation into the mother tongue (L2 → L1) and when it is
the product of writing or composition in the mother tongue (L1). In the same context, an
additional purpose of the study is to compare the retention of mental representations that
result from interlingual translation (i.e. dependent discourse-production), which implies the
activation of two linguistic codes, and those that result from the process of *composition*, which entails the application of a single linguistic code. In other words, the study, which relies on psychological testing, serves to determine how translation (as a form of dependent discourse-production) correlates with *memory of the text* (as measured on the basis of the recognition of specific textual items) and the *text producer’s perception of typographical errors* (as measured on the basis of the recognition of specific typographical errors in the text). Correspondingly, the **hypotheses of the study** are as follows:

**Hypothesis on the recognition of textual items:**

- The number of textual items recognized by the text producer following the review of the text is higher when the text reviewed is the product of *dependent discourse-production* (i.e. translation) than when it is the product of *general discourse-production*.

**Hypothesis on the perception of typographical errors:**

- The performance of the text producer in *perceiving typographical errors* during the review of the text produced is weaker when the text reviewed by the text producer is the product of interlingual translation than when it is the product of monolingual composition.

### 3.2.3.2 Method

A total of 15 **subjects** participated in the study, all of them native speakers of Hungarian. The **instrument** used comprises two tests: a recognition test and an error-perception test, both based on texts produced by the subjects independently, with each subject composing 1 text and translating 1 text (see below).

**Recognition test:**

1) A written text of a given length, produced by the subject on a given topic and in a given genre, *composed in their mother tongue*, and presented in a printed (i.e. not electronic) form

2) A written text produced by the subject to the same specifications (in terms of its length, topic and genre) as those defined in Section 1), *translated into their mother tongue*, and presented in a printed (i.e. not electronic) form
Test of the perception of typographical errors:

1) A written text of a given length, produced by the subject on a given topic and in a given genre, *composed in their mother tongue*, and presented in a printed (i.e. not electronic) form – with 10 typographical errors inserted into the text by the researcher.

2) A written text produced by the subject to the same specifications (in terms of its length, topic and genre) as those defined in Section 1), *translated into their mother tongue*, and presented in a printed (i.e. not electronic) form – with 10 typographical errors inserted into the text by the researcher.

In addition to the texts to be read by the subject, the *recognition test* contains various distractor tasks (i.e. mathematical tasks) as well as a recognition task: a 10-item list of words and phrases, containing 5 target items to be recognized. In the *error-perception test*, the typographical errors to be perceived by the subject were inserted methodically, with findings from relevant research being taken into account (see Gósy 1999). Several versions of the material were compiled, with the order of the texts different in each version so as to prevent a potential carry-over effect from affecting the reliability of the results. The materials were used in a *procedure* methodically devised in a series of trials with several subjects.

### 3.2.3.3 Results

In the case of the *recognition test*, a paired t-test was applied to the two statistical sets of results measured in the recognition task (i.e. results derived from the number of items recognized by text producers after reviewing the *composed* and the *translated* text, respectively) to ascertain the significance of the difference between the two variables (i.e. the mean of the results measured in the case of text producers reviewing the *translated* text and the *composed* text, respectively). The paired t-test showed a significant difference between the two variables (*t*(14)=3.50; *p*=0.004): the number of correctly recognized textual items following review is significantly higher when the text reviewed by the text producer is a translated text than when it is a composed text (see Table 4 and Figure 3).

#### Table 4

**Summary of test results – Recognition test**

<table>
<thead>
<tr>
<th>Text</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translated</td>
<td>3.26</td>
<td>15</td>
<td>1.27</td>
<td>.33</td>
</tr>
<tr>
<td>Composed</td>
<td>2.33</td>
<td>15</td>
<td>.61</td>
<td>.15</td>
</tr>
</tbody>
</table>
Recognition of textual items depending on type of text production

In the case of the test of the perception typographical errors, a paired t-test was applied to the two statistical sets of results measured in the error-perception task (i.e. results derived from the number of errors perceived in the case of reviewing the composed and the translated text, respectively) to ascertain the significance of the difference between the two variables (i.e. the mean of the error-perception results measured in the case of text producers reviewing the translated text and the composed text, respectively). The paired t-test showed only a tendentious difference between the two variables ($t(14)=1.859; p=0.084$): the number of correctly identified errors (i.e. textual items containing errors) is tendentiously but not significantly higher when the text reviewed by the text producer is a translated text than when it is a composed text (see Table 5 and Figure 4).

### Table 5

Summary of test results – Error-perception test

<table>
<thead>
<tr>
<th>Text</th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Translated</td>
<td>4.73</td>
<td>15</td>
<td>2.18</td>
<td>.56</td>
</tr>
<tr>
<td>Composed</td>
<td>5.66</td>
<td>15</td>
<td>1.58</td>
<td>.41</td>
</tr>
</tbody>
</table>
3.2.3.4 Discussion

The results of the recognition test support the hypothesis that the number of textual items recognized by the text producer following the review of the text is higher when the text reviewed is the product of dependent discourse-production (i.e. translation) than when it is the product of general discourse-production. As the difference between the number of items recognized in the case of the translated and in the case of the composed text is statistically significant, the results of the study suggest that the process of translation may lead to an increased retention of textual items, compared to the process of monolingual discourse-production. It is presumed that the reason for this is to be found in the complex nature of the process of interlingual translation. In translation, the translation-specific analytical reading of the source text (i.e. a key element in the translation process, manifested in conscious syntactic, semantic, pragmatic and critical processing) results in a highly elaborate mental representation, which, in turn, forms the basis of discourse-production in another linguistic code (i.e. the creation of the target text) in the subsequent phase of translation. This means that in translation the thoughts to be expressed are coded in two different wordings and two languages in the mind of translator as the producer of discourse (initially, when the source text is processed, and subsequently, when the target text is produced). In addition, in the phase of proofreading the target text, the two texts are compared to each other to ensure intertextual coherence (i.e. faithful reproduction of the original text), which means that the
translator, who reads both the source and the target text, processes the same content in *two different codes* once again. Processing the same content in *two different wordings* and in *two codes* results in increased long-term memory activity, as the two different wordings and the activation of two codes collectively lead to a surge in the number of units activated through association in the mental lexicon (i.e. an organized linguistic system in long-term memory). Units stored in the mental lexicon mutually activate each other in an intricate web of conceptual links between them (see Quillian 1968, Schank 1975, Anderson 1983), thereby facilitating conscious access to individual units (see Meyer & Schvaneveldt 1971: semantic priming). In the case of translation, the number of such associational activations multiplies in the process of mediation: having two different wordings of the same content (i.e. the original text and the translated text) entails the use of two different sets of lexical items, each with different associational patterns, and the two sets of items each activate different units in the mental lexicon. However, the role played by the activation of *two codes* is even more significant than the role played by processing in two different wordings. As the meaning of two equivalent linguistic signs in two different codes does not always overlap completely (see Kolvers 1963, 1968; De Groot 1993 for dissimilarities between the representation of concrete and abstract nouns), corresponding signs may not activate the same referential meaning in the two languages (see Arnedt & Gentile 1986). Consequently, processes that entail the use two linguistic systems will lead to a kind of coding which is substantially differentiated, resulting in an increased retention of relevant memory traces (see Paivio & Desrochers 1980, Paivio & Lambert 1981: bilingual dual-coding). Since translation (i.e. interlingual linguistic mediation) entails the activation of two linguistic codes by definition, bilingual mechanisms undeniably play some kind of a role in the process of interlingual mediation. In interlingual mediation, processing a piece of discourse *formulated in two codes* means that different units may be activated by respective source-language and target-language items (depending on the type of bilingualism that characterizes the translator): an item in one language may evoke different words and activate different concepts in the mental lexicon in one language than the corresponding item in the other language. To summarize, the additive effect of associational mechanisms (which play out on both an intralingual and an interlingual level) results in a highly elaborate coding that is conducive to an increased retention of memory traces.

Statistically, the results of the **test of the perception of typographical errors** do not provide unequivocal support for the hypothesis that the performance of the text producer in *perceiving typographical errors* during the review of the text produced is weaker when the text reviewed by the text producer is the product of interlingual translation than when it is the
product of monolingual composition – since in the test the difference between the number of typographical errors identified in the translated text and the composed text is only tendentious but not statistically significant. However, this tendency does indicate that, on average, subjects perceived fewer typographical errors in the text that they had translated than in the text they had composed. The explanation for this tendentious difference may lie in the implicit effect of memory traces that result from translation. The increased effect of these memory traces may significantly hinder the inhibition of involuntary (i.e. not consciously controlled) error-correction mechanisms responsible for ensuring that the correct unit is activated in the mental lexicon in spite of the presence of a typographical error (cf. Gósy 2005). In order to perceive typographical errors the reader must consciously control automated decoding mechanisms (Gósy op. cit.) to be able to focus on individual letters and series of letters in the text, while limiting comprehension mechanisms (Tóth 2002), which are conducive to error correction. It is presumed that the inhibition of such error-correction mechanisms requires more effort on the part of the producer of the text if the text is the product of translation than if it is the product of composition, in view of the fact that the number of adverse factors is increased in the case of translation-specific review. While in the case of the composed text there are only two factors that may contribute to the adverse effect of memory-related interference (i.e. discourse-production and discourse-review), in the case of the translated text there are four factors that may implicitly affect error perception, namely, source-language discourse-processing, target-language discourse-production, comparative review and target-text review. Thus, in addition to discourse-production (i.e. generation or coding), discourse-processing (i.e. decoding with the purpose of discourse-production) and bilingual dual-coding also play a central role in translation, and this has a cumulative effect in terms of retention, which, in turn, has an adverse effect on the perception of typographical errors in the translated text. This observation seems to be supported by the fact that in the case of 60% of the subjects in the study (that is, 9 out of 15 persons) high recognition performance in the recognition test was coupled with low performance in the perception of typographical errors in the error-perception test. However, due to the small sample size, the results were not statistically correlated with each other, consequently, this negative correlation cannot be regarded as statistically verified. Nonetheless, the results are consistent with previous findings by Daneman & Stainton (1993), according to which increased text-familiarity shows a negative correlation with the perception of typographical errors.

In summary, the results of the present study indicate that (depending on various factors related to the source text, translation competence and translation strategy) interlingual
translation may result in an increased retention of memories of the text, when compared to monolingual discourse-production, and this may have an adverse affect on the perception of typographical errors when the text is reviewed by the producer of the text. Obviously, the study should be repeated on additional, preferably larger samples with different subjects to allow for general conclusions to be drawn about the effect of bilingual dual-coding and implicit semantic memory on the perception of typographical errors by the translator. Even so, in view of previous findings from related studies, the results of the present study give reason to conclude that the translator’s ability to perceive typographical errors is highly limited due to the complex nature of the translation process.

4. Conclusion – Research Results, Limitations and Prospects

The objective formulated in the introduction of the thesis, i.e. the aim to fill the gaps in the research on reading for translation, called for a thorough analysis of the various reading processes that constitute an integral part of written linguistic mediation. Correspondingly, the purpose of the research was to study the theoretical and practical aspects of reading for translation and to explore the cognitive mechanisms that are relevant with respect to the discourse-processing operations executed during interlingual mediation.

The findings of the theoretical and empirical studies, as presented in the thesis, provide a comprehensive frame for research to facilitate the systematic exploration of those dimensions of and mechanisms in reading for translation that either have not been the object of scientific scrutiny or have been studied only in a limited scope thus far. In general, research on the subject has been limited to the study of source-text processing (see Hatim & Mason 1990; Shreve et al. 1993; Gile 1995; Macizo & Bajo 2004, 2006), or it has covered one single aspect of reading (eg. Krings 1986, Zhang 1997). In contrast, the study presented in the thesis described in the present summary covers the analysis of seven different types of reading, and thus highlights the inherently complex nature of reading for translation. Moreover, the study underscores the relevance of the phenomenon being studied, drawing attention to the fact that in the multi-phase process of translation the final word – just like the first word – is the word read by the translator: discourse-processing is not merely a precondition of a discourse-production that is dependent on processing, but it also serves to assure the quality of the text produced, with discourse-processing operations dominating in scale over discourse-production operations throughout the process of translation. That is why it is imperative that the execution of the reading operations that constitute reading for translation be characterized by increased awareness and efficiency in practice. Correspondingly, the findings of the study
may facilitate increased efficiency in reading for translation, as the comprehensive taxonomy (devised as part of the theoretical study) and the cognitive and practical phenomena explored (through the empirical studies) shed new light on the connections between processing operations that play a role in reading for translation – and awareness of these connections allows the translator to consciously consider the potential consequences of executing specific operations. However, the results of the research may be utilized not only in terms of the practice of translation but also in terms of advancing the field of translation studies because the methods used have allowed for the empirical verification of observations pertaining to pivotal processes in translation. This empirical verification was based on a questionnaire-based study and two test-based studies (i.e. correlational studies) along with the application of various statistical procedures. These studies, conducted as a complement to the theoretical study, have also shed light on phenomena that are beyond the realm of translation, as some of the processes analysed are not only related to translation but also to human cognition in general. The two test-based studies, for example, support the dual-coding theory formulated by Paivio (1986), and they are also consistent with the results of the experiment conducted by Paivio & Lambert (1981) on bilingual dual-coding. The findings, however, also show that the effect of bilingual dual-coding on memory transcends the level of words, appearing on the level of discourse as well (depending on the features of the discourse processed), thus it plays an important role in the formation of the representation of the entire discourse (with representation being the result of the referential and associational processing of the series of words, phrases and sentences that constitute the specific discourse). In addition, the findings of the studies support theories and research results related to the generation effect (see Crutcher & Healy 1989), and they are also consistent with previous findings by Daneman & Stainton (1993), according to which increased text-familiarity shows a negative correlation with the perception of typographical errors.

In view of the above, it may be stated that although the gap-filling research presented in the thesis is, in essence, a piece of research in the field of translation studies, not only does it utilize relevant findings from the independent discipline that is translation studies (for a definition, see Baker 1998) but it also makes use of theories and methods prevalent in psycholinguistic and cognitive research. Consequently, to answer additional questions related to the subject, the tools of psychology research need to be applied. Such questions can, indeed, be formulated, since the phenomenon that constitutes the object of the present research (i.e. reading for translation) is influenced by a number of factors that need to be explored in greater depth in order to refine our understanding of the complex type of reading
that is reading for translation. Thus, it would be useful to empirically investigate such factors and to find answers to related questions. One such question, for example, involves the potential correlation between the retention of memory of the source text and the direction of translation (cf. Study No. 2): how is performance in the recall and recognition of textual items affected if the interlingual discourse-production process – which follows discourse-processing carried out with the purpose of discourse-production – entails translation from the less dominant language (L2) into the more dominant language (L1) and not translation from L1 into L2? The direction of translation may be relevant with respect to the study of the perception of typographical errors, too (cf. Study No. 3), for instance, in terms of establishing how error-perception performance is affected if the text reviewed by the text producer is not the result of L2–L1 translation but L1–L2 translation, with errors to be perceived in L2. In addition, questions related to the practical application of knowledge arising from the present research may also be investigated as part of a separate piece of research on how task-specific declarative knowledge based on the acquisition of information related to reading for translation (coupled with relevant meta-cognitive knowledge) correlate with translation competence and translation performance, for example, among future translators with limited professional experience, being trained in translator training programmes.

In spite of the fact that the potential for additional research suggests that the present research leaves certain questions unanswered, the information presented in the thesis sheds new light on reading for translation, providing a comprehensive picture of the practical aspects of and cognitive mechanisms in this highly complex type of reading. Additionally, their shortcomings notwithstanding, the studies presented in the thesis may contribute to a more thorough understanding of relevant phenomena, and also serve as a basis and starting point for additional theoretical and empirical research in the field.
REFERENCES


**SOURCES**

Publications and Conference Presentations related to the Research

Publications:


Conference Presentations:

