THE PUZZLE OF GRAMMATICAL GENDER

THE PUZZLE OF GRAMMATICAL GENDER: INSIGHTS FROM THE COGNITIVE THEORY OF TRANSLATION AND THE NATURE OF POLISH HYBRID NOUNS

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ABSTRACT

The category of grammatical gender has gained considerable attention in the linguistic literature. Previous studies focused primarily on describing the often very complex system of genders in particular languages, on the understanding of the category *per se* (e.g. the origin of gender differentiation) or the acquisition of grammatical gender and the processing of this category in language production.

In contrast, the present dissertation looks at grammatical gender from a cognitive point of view. For the sake of this dissertation, *cognitive perspective* is defined as the assumption that human language cannot be separated from the way human beings perceive the world since language and thought are inextricably related. This approach also implies that research cannot be limited to theoretical explorations, but rather, that it must employ experimental methods and use research tools traditionally associated with other disciplines to collect data about authentic language use. All studies included in this thesis concentrate on the topic of grammatical gender, but they approach the category from a variety of perspectives.

It was found that the grammatical gender, at least to some degree, shapes the worldview of speakers of those languages in which the category operates, since the gender of the personification of concepts usually agrees with the grammatical gender of the respective nouns. In the context of translation, grammatical gender proved to be much more challenging than had been expected; there were many mistakes found in the translation product and many hesitations observed in the translation process.

The findings of the studies included in this thesis add to the general understanding of the complexities of the category of grammatical gender and its relationship to the way language users perceive the world. What is more, the investigations and proposals presented here emphasize the need for a more interdisciplinary approach to the study of grammatical gender.

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always able to make me feel better, even on the gloomiest of days) and Tsee-Leng Choy.

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TABLE OF ABBREVIATIONS

CL: *Cognitive Linguistics*

EEG: *Electroencephalogram*

ERPs: *Event Related Potentials*

FEM or **F**: *Feminine gender*

GD: *Grażyna Drzazga*

MASC or **M**: *Masculine gender*

MS: *Magda Stroińska*

NEUT: *Neuter gender*

P: *Participant*

TAPs: *Think Aloud Protocols*

TL: *Target Language*

TT: *Target Text*

SD: *Standard Deviation*

ST: *Students*

SL: *Source Language*

ST: *Source Text*

WJS: *William J. Sullivan*

DECLARATION OF ACADEMIC ACHIEVEMENT

I hereby declare the following thesis to be my own work. The articles included in Chapters 4-8 have been published or submitted for publication and the permission to include them was obtained from the respective copyright holders. What is more, the co-authors of the articles – Dr. Stroińska and Dr. Sullivan – gave me their authorizations to include the articles in this dissertation, thus, to the best of my knowledge, the thesis does not violate any proprietary rights. The detailed division of labour on the articles and the status of the publications are summarized in the individual prefaces to the articles.

All the research ideas are my own, although I benefited from the guidance of my supervisor – Dr. Stroińska - and my Supervisory Committee members – Dr. Service and Dr. Cecchetto. All experiments were designed by myself and my supervisor and conducted by me, and we were responsible for the analysis of the data.

The version of the thesis that follows was written by me and includes revisions and additions suggested by my Supervisory Committee and the examiners.

CHAPTER 1

1 INTRODUCTION

1.1 Outline of the Problem

If it is assumed that grammatical categories, even if only in a minimal way, shape the way we perceive the world, many questions arise. Using the example of one such category – grammatical gender – one may ask if speaking a language that distinguishes between the grammatical genders of nouns influences the way a person perceives the referents of those nouns or personifies the concepts. One may also enquire how strongly these gendered personifications are grounded in the culture of that language. In the framework of translation studies, the process of translation between languages can be examined to investigate how languages whose gender systems differ deal with this problem.

It seems impossible to conduct research that would help to answer the above mentioned questions using *traditional* linguistic research methods exclusively, i.e. by carrying out only theoretical investigations, without supplementing them with qualitative or quantitative empirical studies.

The main intention of the studies included in this thesis was to gain an understanding of the puzzling nature of the category of grammatical gender in a variety of contexts. In addition, the thesis aims to illustrate how applying an interdisciplinary approach may contribute to this understanding.

1.2 Terminology

The very title of this thesis includes two terms that require commentary: *translation* and c*ognitive.* In this section, their meaning will be explained to avoid confusion.

Throughout this thesis (with the exclusion of Chapter 6 that involves a discussion of translation understood both as an oral and written activity), the term *translation* will refer to written translation since oral translation (interpretation) was not included in the present investigations. Generalization of the results of the present studies to interpretation can thus not be assumed without further data collection.

The term c*ognitive* proves to be ambiguous, even within the framework of linguistic research. In this dissertation c*ognitive* refers to the assumption of a relationship between language and the understanding or the conceptualization of the world. All the studies included in this thesis, even though they do not always use the terminology traditionally associated with cognitive linguistics in an explicit way, have these assumptions as their basis. In the present work, c*ognitive* also refers to the psycholinguistic approach to the study of language and the assumption that the use of language should be experimentally investigated. Nevertheless, the present dissertation does not constitute a cognitive linguistic investigation. Rather, it borrows some basic assumptions from CL to create the experimental framework for the studies of grammatical gender in the context of translation.

The term *cognitive approach to translation* thus denotes a methodological approach that combines the points of view of cognitive linguistics, psychology, and the necessity to include empirical research methods in translation studies. The construal of the definition of this approach and a detailed discussion of its

implications constitute the main body of Chapter 6 and will not be repeated here to avoid redundancy.

1.3 Scope of the Dissertation

This dissertation has a limited scope so it is crucial to outline here the constraints of the work.

First of all, as mentioned in section 1.2, the thesis uses assumptions from the cognitive linguistics framework; however, it is beyond the scope of this thesis to discuss in detail different aspects of this theoretical approach or even to summarize them all. The most important hypothesis included in the Cognitive Linguistics framework, and the one that guides the studies in this thesis, is that "grammar is conceptualization" (Croft & Cruse, p. 328). It entails that there is an association between how the given situation is conceptualized by the speakers of a given language and the grammatical structures of the language that are available to the speakers for the purpose of describing it. It needs to be acknowledged that cognitive linguistics is not a single theory, but rather a "*movement* or an *enterprise* […] that has adopted a common set of guiding principles" (Evans & Green, 2006, p.3). This umbrella term, as acknowledged by Lemmens (2007), encompasses approaches to grammar, as exemplified by Cognitive Grammar (Langacker, 2008) but also approaches to semantics, such as Blending Theory (Fauconnier & Turner, 1998) or Conceptual Metaphor Theory (Lakoff & Johnson, 1980). Finally, the present studies do not apply the cognitive linguistic framework per se to answer the research questions, thus they are not what would traditionally be understood as cognitive linguistic studies.

As far as the study of translation and translation theory is concerned, the dissertation concentrates the research on the process of translation. Therefore an in-depth discussion of the traditional translation theories – for example, *skopos*

theory (Vermeer, 1989), relevance theory (Gutt, 2000), *foreignization* and *domestication* approaches (House, 2001) or the theory of translation as a decision process (Levy, 1969), although mentioned in the introductions to respective articles – is beyond the scope of this thesis.

1.4 Context of the Studies

Unquestionably, the research problems discussed in this thesis did not emerge in a vacuum and were motivated by previous studies described in the literature. In this section, the general context for the studies included in this thesis will be summarized. A more detailed literature review on each topic is included in the respective chapters.

The idea of research on the gender of death and the linguistic problems connected with it in the context of translation came from the observations made in Stroińska (2007). My interest in the topic was strengthened by reading the numerous investigations conducted by Lera Boroditsky (2000, 2001) who concentrated on the relationship between language and thought, including the connection between grammatical gender and the personifications of abstract concepts (Segel & Boroditsky, 2010).

The need for an interdisciplinary approach to translation studies is also not an original idea of this thesis, even though it is a relatively novel concept in the literature on translation studies. For example, Shreve and Angelone (2010) devoted an entire volume to a review of the research on translation and cognition. They concluded that there was not much data available at the time of writing and that it would, therefore, be important to incorporate empirical research into subsequent investigations.

Since the theoretical observations made in the studies summarized in Chapters 4 and 5 confirmed that grammatical gender may be problematic in the

context of translation, the question of grammatical gender in translation viewed as a process was made the main focus of the subsequent empirical studies.

Finally, studies on translation that have used a key stroke recording computer software (e.g. Immonen 2006, 2011; Malkiel 2006, 2009; O'Brien 2006; Tirkkonen-Condit et al. 2008) helped to design the study described in Chapters 7A and 7B. The Translog software used in these studies was chosen as the instrument for analyzing decision making in the process of translation.

1.5 Focus of the Studies

Since the thesis consists of five different studies, it is impossible to include one uniform set of research questions that motivated all the investigations. However, as mentioned above, the studies all have the same goal: to better understand the category of grammatical gender and the way it influences speakers' perception of the world and the process of translation.

An investigation of a masculine representation of death in a culture in which the word for death is feminine is reported in Chapter 4 (Drzazga, Stroińska & Sullivan, 2012). This study asks whether the speakers of languages in which the conceptualization of death is feminine would be able to accept the departure from this archetype, if the context – translation – required such a change.

A different treatment of the topic of the gender of death is explored in Chapter 5. In this study (Drzazga & Stroińska, 2012) the problematic nature of the gender of death is investigated in a cross-cultural context on both the textual and discourse levels. First of all, we summarize how the category of grammatical gender may influence the gendered personifications of this concept. What is more, we analyze how the gender of the personifications constitutes a translation challenge and how this challenge was handled in the translations of popular literature. The study additionally includes the analysis of other translation

problems connected with the assignment of grammatical gender, focusing on the misalignment of grammatical and natural gender.

Chapter 6 (Drzazga, in print) constitutes an attempt to combine traditional translation studies with a cognitive linguistics framework in order to derive a new research paradigm that would allow one to investigate translation as a process and not only as a product. The main goal of the article presented in Chapter 6 was to define what is referred to in translation literature as the *cognitive approach to translation* and to illustrate how this new approach could be used in the investigations of translation as a process. This article may be considered a starting point for the investigations presented in Chapters 7A and 7B.

The topic of grammatical gender and the translation process is investigated in Chapter 7A (Stroińska & Drzazga, under review) using the translation of the fairy tale "Snow White" from German into English. This chapter applies the research paradigm proposed in Chapter 6 as a pilot study. The main goal was to see whether grammatical gender misalignment poses real difficulties, even if translators work with a familiar text and translate into their dominant language. We also wanted to use the linguistic category of gender as a tool to see what translation strategies are applied by novice translators (in this case, students in an upper level translation course). The following chapter – Chapter 7B (Drzazga & Stroińska, submitted) – gives a detailed description of the full study on this topic thus many of the research questions from Chapter 7A are repeated there. The conclusions to Chapter 7B answer some of the questions that were asked in the conclusions to Chapter 7A.

Chapter 8 (Drzazga, submitted) offers yet a different perspective on the question of grammatical gender. This time the investigations are mainly on the theoretical level of grammar and linguistic acceptability rather than on the translation process since the paper that constitutes Chapter 8 concentrates on a curious case of Polish hybrid nouns. The assignment of grammatical gender to

those nouns is complex and an analysis of its mechanisms may help to understand the nature of this grammatical category. The aim of this article was to clarify some ambiguities of the term, including the name *hybrid nouns,* and to propose experiments that could be conducted in the future in order to better understand gender assignment and gender agreement patterns for hybrid nouns in Polish. This chapter also outlines how modern brain potential measures can be used in research on the processing of gender ambiguities.

1.6 Organization of the Thesis

This dissertation is structured as a so called, *sandwich thesis* – its main body is composed of articles, either written by me as the sole author or co-authored by me. The articles have either already been published or have been submitted for publication. The co-authored papers have been written in collaboration with Dr. Magda Stroińska (McMaster University), my thesis supervisor, and – in one case (Chapter 4), with Dr. William Sullivan (UMCS/University of Wrocław). The order of the authors in the case of co-authored papers indicates the level of contribution and is explained in more detail in the introduction to each individual chapter. All the articles in this thesis deal with the topic of grammatical gender, but they approach the issue from different points of view.

1.6.1 The order of articles in the thesis.

My original plan was to present the articles in chronological order, since it would also reflect the development of the research ideas. However, maintaining this order would entail that the article which postulates that more research on translation process is needed – “What can cognitive translation tell us about the

relationship between language and thought?" (Drzazga, in print) – would be followed by two studies on the gender of death in translation that concentrate on that translation product (Drzazga, Stroińska & Sullivan, 2012 and Drzazga & Stroińska, 2012). For that reason, it was decided to organize the studies by topic instead: 1) Chapters 4 and 5 investigate the translation product; 2) Chapter 6 discusses the concept of a cognitive approach to translation and talks about the investigation of the translation process; 3) Chapters 7A and 7B summarize empirical investigations that implement ideas expressed in Chapter 6. The reader is asked to keep in mind that the chronology of the published articles is not the same as that of the thesis thus Chapters 4 and 5 include references to an article that is presented in Chapter 6.

1.7 The Overview of the Thesis

In order to present a framework for the investigations summarized in Chapters 4-8, Chapter 2 provides a review of the literature on the topic of grammatical gender in general and includes a short description of the gender systems of those languages included in the investigations that follow. More detailed descriptions will be presented in the respective articles. Chapter 3 outlines the research methods that were chosen for the studies, providing information on the rationale behind the investigations presented in Chapters 4-8. Articles in Chapters 4-8 are stand-alone papers. Each study is preceded by a short introduction that contextualizes the article and summarizes the way in which the particular paper is related to the previous chapters and to the general focus of the thesis. It also advises the reader of the inevitable overlaps or repetitions. If the article includes an abstract, the short introduction does not outline the content of the paper. If the paper has more than one author, the contributions of the authors

are explained in these sections of the thesis. Finally, the introductions include the description of the status of publications and the explanation of formatting.

Chapter 9 summarizes the findings of the studies, offers criticism by listing their limitations and proposes possible ways of continuing research on the different topics found in the thesis.

The reference section of the articles in Chapters 4-8 that are part of the respective articles have been left in their original form, as requested by the publishers; thus they are not presented in a consistent format throughout the thesis. A full bibliography for the entire thesis, incorporating the references from Chapters 1-3, Chapter 9 and those from Chapters 4-8, is presented at the end of the thesis.

While a significant effort was made in order to avoid unnecessary repetitions, some repetitions could not be eliminated. The reader is asked to keep in mind that this is potentially one of the drawbacks of the sandwich thesis format.

CHAPTER 2

2 GRAMMATICAL CATEGORY OF GENDER

This chapter reviews the literature on the category of grammatical gender. Although general remarks on this topic are also included in the articles that form the subsequent chapters of this thesis (especially in Chapters 4 and 5), the intention here is to provide an in-depth description of the grammatical category of gender. This includes an attempt to define the term *grammatical gender* as it is used in the thesis, as well as to provide a detailed description of the gender systems in the languages – English, German, and Polish – investigated in the studies. This description shall include the controversies connected with the respective grammatical gender systems.

2.1 Gender as a Linguistic Category

The word "gender" derives from the Latin word *genus* – meaning "kind" or "sort" (Corbett, 2006b, p. 749) and the very name itself suggests that gender is used for the purpose of categorization. Thus a simplified definition of the category of grammatical gender is that it is a feature used for classifying nouns. Noun classification is "reflected in the behavior of associated words" (Hockett, 1958, p. 213, as cited in Kibort and Corbett 2008) and in order for an agreement to be classified as based on gender, "there must be evidence for gender outside the nouns themselves" (Corbett, 2005a).

The grammatical category of gender is not universal, since there are languages in which grammatical gender is not assigned to nouns. Moreover, the number of grammatical genders varies among languages and they do not always correlate with the natural gender of the referent (Corbett 2005a, b, c). Gender

systems, therefore, do not always have natural sex as a component. Another criterion for noun classification may be, for example, whether the referent is animate or inanimate (e.g. Algonquian languages, Corbett, 2006b, p. 749).

The nouns normally fall under only one category of gender and this category is assigned on the basis of three possible assignment systems: semantic – based exclusively on the meaning of the noun (e.g. Tamil), formal – based on the morphological or phonological form of the word (e.g. Swahili) or the combination of these systems (Corbett, 1991). Although Kibort (2010) claims that "there is always some semantic basis to gender classification, though gender values can be semantically transparent to a greater or lesser extent" (p. 77), there are languages that seem to have gender systems that are purely grammatical in their nature. For example, Swedish nouns belong to one of the two genders: common –which combines masculine and feminine – or neuter (Corbett, 1991, p. 124). According to Josefsson (2006), in this language, there seem to be two gender systems: one purely grammatical and one semantic. These systems are independent, although they interact and the presence of grammatical gender which has only a syntactic function (Josefsson, 2006, p. 1367) adds to the complexity of the task of defining gender.

Gender is assigned by the controller noun and is represented on targets. The parts of speech that show gender agreement (agreement targets) are language specific and may include the following word categories: adjectives, articles, possessives, participles, verbs, personal and relative pronouns, adpositions, and complementizers. Gender distinction can be also overtly marked on the controller noun itself, e.g. *aktor*$_{\text{MASC}}$, *aktorka*$_{\text{FEM}}$ ('actor,' 'actress').

Some languages allow nouns to fall under more than one category of gender. For example, English has double gender nouns – e.g. *baby* or *doctor* – that are assigned the gender of the referent, i.e. *My baby, he/she is such a giggler*. On the other hand, in Polish, hybrid nouns can be found which "neither simply

take the agreements of one consistent agreement pattern nor belong to two or more genders" (Corbett, 1991, p. 183). A detailed literature review on hybrid nouns is presented in Chapter 8.

According to the typology of features proposed by Kibort (2010), gender marking on adjectives, verbs and pronouns is a contextual feature of agreement and its value is required by the syntactic context. Gender is inherently realized on nouns and it is typically fixed (i.e. remains invariant for a given noun), in contrast to number, which is typically selected from available options (Kibort 2010, p. 76).

Furthermore, grammatical gender appears not to contribute anything to the meaning of inanimate nouns and it would seem that "this is natural in view of the fact that, unlike all other grammatical categories, gender does not evince an authentic relationship with conceptual categories" (Ibrahim, 1973, p. 25). However, it will be argued that this view is flawed, as the grammatical gender of a noun influences the mental image of concepts, as illustrated by the investigations of the gender of death presented in Chapters 4 and 5.

The sections below illustrate that it is somewhat problematic to establish the number of genders in a language. One way of approaching this issue was proposed by Corbett who claims that:

> An agreement class is a set of nouns such that any two members of that set have the property that whenever (i) they stand in the same morphosyntacic form and (ii) they occur in the same agreement domain and (iii) they have the same lexical item as agreement target then their targets have the same morphological realization (Corbett, 1991, p. 147)

Corbett also suggests distinguishing between controller genders and target genders (Corbett 1991, p. 150 ff) in order to estimate the number of genders possible. Controller gender, then, is the category into which nouns are classified – the inherent categories of nouns while target genders are genders marked on the targets of an agreement, for example adjectives or verbs. Corbett (1991) goes on

to explain that French has two target genders in singular (masculine and feminine), two target genders in plural (masculine and feminine) and two controller genders that provide mapping between genders in singular and plural. Tamil, on the other hand, has three target genders in singular (masculine, feminine, and neuter) that are mapped to two target genders in plural (rational and neuter) by means of three controller genders (Corbett, 1991, 151-154). In most languages the number of controller and target genders is the same, but there are also systems with many-to-one mappings, for example in German where three genders in singular (masculine, feminine, neuter) are mapped to one in plural.

Gender assignment may be understood in two ways, depending on the metaphors that are used for its interpretation: grammatical genders as *containers* – nouns are assigned to genders just as items can be placed into different containers, and gender as *feature value* – in which gender is assigned to nouns just as attributes are assigned to different objects (Thornton, 2009, p. 14). As observed by Thornton (2009), Corbett (1991) switches between the two interpretations. Although the difference between these two understandings seems insignificant, it has important implications for the thesis. As Thornton (2009) claims "the first point of view arises out of interest in the cognitive classification of experience that gender systems reflect, while the second one arises out of interests in the way gender functions in grammar" (p.15).

The two interpretations will be used in the different studies found in the subsequent thesis chapters. For the study of the gender of death (Chapters 4 and 5), it would be assumed that nouns are assigned to genders and this assignment shapes the mental representation of the concept, thus if death is a feminine word, the gender of the conceptualization should be feminine. On the other hand, since in the study of hybrid nouns (Chapter 8), grammatical gender is perceived from a formal, grammatical point of view, it would be assumed that genders have to be assigned to nouns.

2.2 German Language Gender System

The system of grammatical gender in German seems to be straightforward at first glance. In the singular, German has three grammatical genders: masculine, feminine, and neuter, while in the plural, there is no gender distinction. For example, *die Wand*$_{\text{FEM}}$ ('wall'), *der Fussboden*$_{\text{MASC}}$ ('floor'), *das Fenster*$_{\text{NEUT}}$ ('window') in plural will surface as the same gender with a determiner *die*. Therefore, it is what Corbett (1991) calls a *convergent* gender system as "the target gender in one number determines gender in the other, but not vice versa: there is a many-to-one mapping of target genders in one number onto target genders in the other" (p. 155).

As far as the assignment system is concerned, "there is a complex interplay of overlapping semantic, morphological and phonological factors" (Corbett, 1991, p. 49), but the gender can be predicted for the majority of the nouns. Grammatical gender is assigned in German to all nouns, animate as well as inanimate, thus objects can be masculine, feminine or neuter (for more details cf. Schwichtenberg & Schiller 2004). Morphological factors include the ending or type of zero derivation, phonological factors include the number of syllables or type of onset or coda, and semantic or conceptual factors refer to the semantic classes of nouns. Thus, for example, all diminutives ending in *–chen* are neuter and all zero derivations based on verb stems, e.g. *Besuch* ('visit') are masculine. One syllable nouns that start and end with a consonant cluster are usually masculine, e.g. *Trumpf*, 'trump'. Nouns that refer to physical phenomena related to temperature are feminine, e.g. *Hitze* 'heat' (cf. Fries, 2008). Normally, nouns in the singular simply fall into one of three genders but there are some exceptions, i.e. words with more than one grammatical gender, e.g. *Barock* 'baroque', *Dotter* 'yolk', or *Joghurt* 'yogurt', that may either be neuter or masculine, and *Salbei* 'sage' or *Butter* 'butter' that may be treated either as masculine of feminine (data

from Bußmann & Hellinger, 2001).The emergence of these exceptions results from "analogy processes of borrowing, or from regional and technical differences" (Bußmann & Hellinger, 2001, p. 143).

When it comes to the controller noun, it has no overt gender marking and the gender agreement surfaces only on articles and pronominal forms in singular. The gender agreement is seen both within the noun phrase (determiners, adjectives, pronouns) and outside (anaphoric pronouns). When it comes to adjectives, only attributive adjectives show agreement with their head noun, for example *schönes*$_{\text{NEUT}}$ *Mädchen* ('pretty girl', neuter). If the adjective is in the predicative position, it does not show gender (Corbett, 1991, p.124), as illustrated by *das Mädchen ist schön* ('the girl is pretty').

Even though the German grammatical gender system does not seem problematic, there are examples of nouns that do not belong solely to one gender – for example nouns in which grammatical and lexical genders of the noun do not correspond. For example: *Mädchen* 'the girl' is grammatically neuter as suggested by the ending *-chen* which marks derived nouns as neuter, but semantically it is feminine. Another example is *Männchen* 'little man' which is also neuter, but its semantic gender is masculine.

In the case of *Mädchen*, Corbett (1991) observes that the choice of gender for personal pronouns depends on the age of the referent – the older the girl is, the more likely feminine agreement becomes (p. 228) – yet there is an interesting difference in the emotional aspect of the choice between agreement options. Based on a thorough analysis of the Brothers Grimm fairy tales, Robinson (2010) claims that "the more positive pronoun *es* frequently refers to young, unsexed, nice and/or good girls, while the pronoun *sie* frequently refers to older, sexed, naughty and even bad girls, and of course women" (p. 160). Therefore there seems to be a correlation between the personal attitude of the speaker and the

choice of grammatical gender to reference the human participants in the events described.

As presented in this short description, German has a gender system that may be problematic for non-native speakers. The assignment of gender to inanimate nouns and the misalignment of natural and grammatical gender make the acquisition of this grammatical category particularly challenging. These complexities allow for the study of interplay between the gender of the noun and the personification of the concept, as well as the processing of grammatical gender in the context of translation between languages whose grammatical gender systems differ.

2.3 English Language Gender System

The issue of gender in English is controversial. Old English had three gender classes: masculine, feminine, and neuter, but the category was later lost. An example of an Old English sentence (1) is given by Curzan (2003) in which a demonstrative pronoun and an adjective agree with the gender of the noun *lind* – shield.

(1) Seo brade lind wæs tilu and ic hire lufode.
The$_{FEM}$ broad$_{FEM}$ shield$_{FEM}$ was good$_{FEM}$ and I her loved
'That broad shield was good and I loved it' (p. 14)

Modern English does not have overt grammatical gender marking on nouns and the gender agreement is not visible on verbs or adjectives, with the only agreement targets being personal and possessive pronouns. For that reason, some scholars postulate that English lacks this grammatical category altogether.

Hellinger (2001) acknowledges that some nouns have lexical gender and this gender determines the choice of pronouns, but the majority of English nouns are unspecified for gender; thus there is no grammatical gender category in

English. In an earlier source, Hall (1951) also claims that "in English, […] we have no gender – overt or covert – and the apparent instances of gender agreement […] are simply examples of sex reference" (Hall, 1951, p. 172). Thus, it may be assumed that in modern English, "gender is a primarily semantic category, with important social implications" (Hellinger, 2001, p. 107) making English an example of a language whose gender system "has radically changed and almost all of its morphological and syntactic manifestations have been lost" (Ibrahim, 1973, p. 25).

On the other hand, according to Kibort and Corbett (2008), "establishing whether English has gender is not problematic, but the answer depends on one's view of agreement." Thus if it is assumed that antecedent-anaphor relations can be considered to be an instance of agreement, it would mean that English has a gender system, but this gender system is unique and often referred to as a pronominal gender system.

Corbett (1991) justifies this classification of English by giving two arguments: 1) if a language marks gender on pronouns and on other targets, the machinery required to handle them all is similar; 2) even if pronouns are the only evidence for gender in a language, the gender system is of the same type as systems that are fuller (p.169). Thus, there is no reason to treat pronouns differently than other agreement targets.

If the existence of gender in English is acknowledged, then English gender is covert. According to the definition, a covert category "is marked, whether morphemically, or by sentence-pattern, only in certain types of sentence and not in every sentence in which a word or element belonging to the category occurs" (Whorf, 1945, p. 2), and in a covert category of grammatical gender, the categorization is visible only when there is occasion to refer to the noun by a personal or relative pronoun (Whorf, 1945, p. 3). In this view, the gender system of English can be classified as one based on semantic criteria, similar to Tamil

(Corbett, 1991, p. 12), but the reflection of gender, as mentioned above, will only be seen in the morphological forms of pronouns.

Once it is assumed that English indeed has the category of grammatical gender, what remains problematic is the number of genders in English. In the literature, proposals include as many as nine genders. For example, the proposal by Quirk et al. (1985) included the following gender categories: male, female, dual, common, collective, higher male animal, higher female animal, lower animal, and inanimate. According to Corbett (1991) there are three genders in the singular (who/he – masculine – e.g. *boy*, who/she-feminine, e.g. *girl*, and which/it neuter, e.g. *book*) (p. 180). In the plural the only classification is between personal (who/they – e.g. *women*) and nonpersonal (which/they – e.g. *books*). Payne (2006) adds one more gender - which/she – nonpersonal feminine (e.g. *ship*).

Curzan (2003) claims that "the key to understanding the natural gender system in Modern English lies in the exceptions, the inanimate nouns that can take gendered pronouns and the human or other animate nouns that can take *it*" (p.20). She observes that it is challenging to describe the system of grammatical gender in English as, first of all, in English gender is not a fixed property of the noun, and, secondly, the features on which the system may be based are not obvious because of the lack of formal clues.

The exceptional gender assignment of some nouns may be either conventional or emotive (Curzan, 2003, p. 21). Proper names as well as the "boat words" (e.g. ship) are examples of the conventional assignment, as the occurrence of gendered pronouns does not depend on the attitudes of the speaker. Curzan (2003) claims that the fact that the speakers of English "cross biological lines" when they assign gender to pronouns "corresponds to speakers' ideas about and constructions of gender in the world about which they speak" (p.30). Curzan reprises Erades and concludes that

> the old schoolbook rule to the effect that a male being is a *he*, a female being a *she* and a thing an *it* only applies when the speaker is emotionally neutral to the subject referred to; as soon as his language becomes affectively coloured, a living being may become an *it*, *this* or *what* and a thing a *he* or *she* (Erades, 1956, p. 9, as cited in Curzan, 2003, p. 22)

In conclusion, in the present thesis, it is assumed that English indeed has the feature of grammatical gender with three basic genders distinguished in singular: masculine, feminine, and neuter. This uncomplicated system provides an opportunity to study the processing of less predictable grammatical gender assignments by native speakers of English in the context of translation.

2.4 Polish Language Gender System

The Polish grammatical gender system seems to be the most complex among the languages chosen for the investigations described in the following chapters. In Polish, the phonological and orthographical form of the ending of the noun determines the gender of the noun in most cases. As illustrated in example 2, controller nouns assign grammatical gender to modifiers if they are in a syntactic relationship. Verbs, pronouns, numerals, and predicate adjectives show agreement in gender.

(2) *Ten miły kot był zły bo mysz bawiła się jego zabawką*.
This$_{MASC}$ nice$_{MASC}$ cat$_{MASC}$ (controller noun i) was$_{MASC}$ angry$_{MASC}$ because mouse$_{FEM}$ (controller noun ii) played$_{FEM}$ self$_{REFLEXIVE}$ his$_{MASC}$ toy.
"This nice cat was angry because a mouse has been playing with its toy."

There is an interaction between tense and gender as verbs in past tense show gender agreement. This may be accounted for by the origin of Polish past tense verb forms. As in Russian, the past tense forms used to be compounds consisting of the verb "to be" and a past participle which had gender marking

(Corbett, 1991, p. 126). The auxiliary verb disappeared completely in the 16th century and the past tense form that is used today is the original participle which retained its gendered forms (Klemensiewicz, Lehr-Spławiński & Urbańczyk 1965, 367-374).

Since the grammatical gender of the noun may be predicted by the form of the word, the gender assignment system in Polish is mainly morphological and it is determined by the declensional type of the noun. Thus, for example, nouns ending with *–a* are, as a rule, feminine while suffix *–o* suggests neuter gender. However, semantics also plays a role, thus, in rare cases in which the declensional type suggests a different gender than the natural gender of a referent, it is semantics that determines the choice of gender, for example *mężczyzna* ("a man") that ends with *–a*, but belongs to the masculine gender.

The number of grammatical genders in Polish is controversial. On the one hand, it would seem that there are only three grammatical genders: masculine, feminine, and neuter. This division is established by considering the nominative singular form of nouns (Klemensiewicz, 1965, as cited in Wertz, 1977, p.50), and it is found in a classic book presenting the grammar of Polish in which Muczkowski claims that there are only three genders (Muczkowski, 1860, p.21). Mańczak (1956), considering the accusative form of masculine nouns in the singular, adds the distinction between animate (designating men and male animals) and inanimate forms, resulting in a five gender system: masculine personal (e.g. *kawaler* "bachelor"), masculine animal (e.g. *pies* "dog"), and masculine inanimate (e.g. *stół* "table") feminine (e.g. *kobieta* "woman"), and neuter (e.g. *dziecko* "child") (p. 119). He points out that Polish can be analyzed as having these five genders in both the singular and the plural, but then syncretism of masculine animal, masculine inanimate, feminine and neuter has to be considered, or one may claim that there are four genders in the singular and just two in the plural. The latter proposal was suggested by Schenker (1964) who

claims that there are four genders in the singular (masculine animate, masculine inanimate, feminine, and neuter) while in the plural, nouns may fall into one of two genders (masculine personal or non-masculine personal) (Wetrz, 1977, p. 51).

Wertz (1977) concludes his analysis by positing seven genders: four in the singular (masculine animate, masculine inanimate, feminine, neuter) and three in the plural (masculine personal, devirilized, and impersonal). He claims that dividing the gender system into two separate groups – singular and plural is the only correct way to analyze Polish genders because "to amalgamate the singular and plural gender systems would be a mistake since it would force on us either arbitrary decisions (as to the gender of missing numbers) or otherwise unnecessary archigenders" (p. 63).

Corbett (1983) challenges Wertz's (1977) analysis claiming that "the split between gender in the singular and gender in the plural, which Wertz and other scholars propose, is untenable" (p. 83). He suggests that a six gender system is capable of accounting for the data found in Polish. Nominative singular used as a diagnostic agreement would create the division of nouns into masculine gender, feminine gender, and neuter gender. Accusative singular would then account for the division of masculine nouns into masculine human& animate and masculine inanimate gender (e.g. *stół* "table"). When human & animate nouns are analyzed in accusative plural, the division into the set of masculine human nouns and masculine animate gender (e.g. *koń* "horse") nouns occurs. Finally, nominative plural used as a diagnostic element would divide the set of nouns that are masculine human into masculine personal gender (e.g. *mnich* "monk") and, masculine devirilized gender (e.g. *karzeł* "dwarf"). To reiterate, in this analysis Polish would have six genders: masculine personal, masculine devirilized, masculine animate, masculine inanimate, feminine, and neuter. The division proposed by Corbett (1983, p. 87) is illustrated in Figure 1.

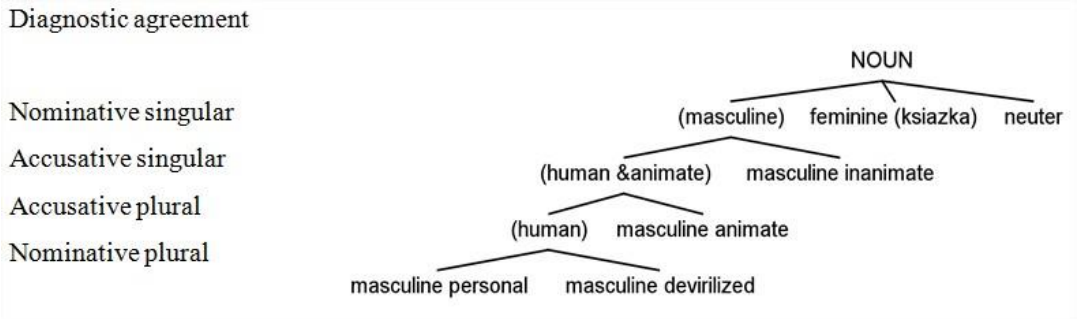

Figure 1: The gender system of Polish (Corbett, 1983, p. 87)

Corbett (1983) suggests that even though the six-gender system is able to account for the Polish data, a feature approach, mentioned in the first section of this chapter, is preferable. Gender, analyzed from this perspective, has a set of values, for example, masculine, feminine, and neuter and will be an inherent feature of nouns and a contextual feature of all agreement targets.

In Polish there is also a very interesting gender assignment mechanism in conjoined structures, if the conjoined nouns are of different genders (e.g. Stroińska, 1986). An explanation and rules that govern these constructions have been proposed by Corbett (2010, p. 31), but the topic of mixed gender resolution is beyond the scope of interest of this thesis.

In conclusion, the complex nature of the Polish grammatical gender system facilitates the study of the relationship between the relationship between the personification of a noun referent and the gender of the noun, as it will be shown in Chapters 4 and 5. What is more, in Polish there are nouns – the so called *hybrid nouns* – that may be assigned to different genders, depending on the natural gender of the referent. Thus Polish offers stimuli that may be used to investigate the complex nature of gender processing.

2.5 Agreement Hierarchy

Since gender agreement is not always straightforward, an agreement hierarchy has been postulated by Corbett (1979). This agreement hierarchy "allows us to make predictions as to the possibility and relative frequency of semantic as compared to syntactic agreement" (Corbett, 1979, p. 203).

The definition of agreement hierarchy offered by Corbett (1988) states that: "For any controller that permits alternative agreement forms, as we move rightwards along the Agreement Hierarchy, the likelihood of agreement forms with greater semantic justification will increase monotonically" (p. 14). "Monotonically" refers to the requirement that if grammatical gender is assigned on syntactic basis to a particular position in the hierarchy, all the position to the left will also be governed by a syntactic agreement. If a given position allows for a semantic agreement, all positions to its right will also permit it. The hierarchy has the following form: attributive>predicate >relative pronoun >personal pronoun (Corbett, 1979, p. 204).

Attributive agreement refers to agreement within the phrase of the item controlling the agreement, the predicative position is a position outside the phrase, but within the clause, the relative pronoun position refers to the position beyond the clause, but within the sentence. The position of the personal pronoun is not restricted to the sentence (Corbett, 1979, p. 216).

The position of predicate can be further broken down into the predicate hierarchy, verb > participle > adjective > noun (Corbett 2006a, p. 233). It should be understood analogically to the agreement hierarchy.

The predicate hierarchy cannot be incorporated into the agreement hierarchy in a linear way, since the resulting hierarchy would have the following structure: Attributive > [verb > participle > adjective > noun] > relative pronoun > personal pronoun (Corbett, 2006a, p. 233). This understanding of the hierarchy

implies for example, that relative pronoun has a greater probability of being assigned a semantic agreement than the predicate nominal while the gender of predicate noun, according to Corbett (2006a), almost always agrees with the semantics of the controller.

Thus the Predicate Hierarchy has to be treated as a sub-hierarchy of Agreement hierarchy and the illustration of this understanding is presented in Figure 2:

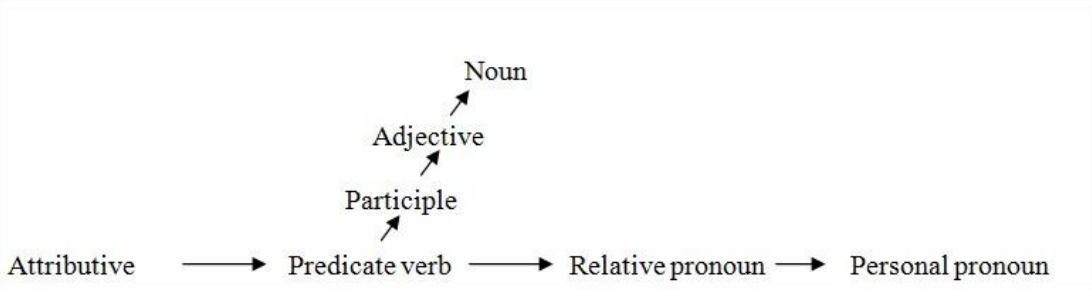

Figure 2: The Agreement and Predicate Hierarchies (Corbett, 2006a, p. 233)

According to Corbett (1979), the hierarchy serves as the measure of syntactic distance, but there are other factors, such as word order, the actual distance between the controller and agreement target or the depth of stacking that may influence the choice of agreement on a given target.

The Agreement Hierarchy as put forward by Corbett will be a crucial part of the analysis of the grammatical gender of death (presented in Chapter 5) and the study of hybrid nouns (in Chapter 8).

2.6 Summary

This chapter presented a review of the literature investigating the category of grammatical gender in general, as well as the grammatical genders of those languages chosen for the studies. The goal of the chapter was to explain the theoretical background of the studies, as well as to clarify the understating of the theoretical concepts that that are the basis of the chapters that follow.

CHAPTER 3

3 METHODOLOGY

This chapter provides a description of and rationalization for all research methods that were used in the studies presented in the dissertation. Each section of this chapter starts with a description of the research question, followed by the summary of the study design. Its main goal is to present the rationale behind every study and behind the choice of methodology. Although there is some overlap between what follows and the subsequent articles, this chapter aims at providing a more in-depth background of the design of each study.

3.1 The Grammatical Gender of death in Translation

The hypothesis behind the studies on the grammatical gender of death in translation, presented in Chapters 4 and 5, was that the dominant language and the dominant culture of the speaker determine their conceptualization of key cultural concepts. For that reason, for example, native speakers of Slavic languages in which the noun denoting death and the conceptualization of death are feminine should reject masculine personifications of death. The differences in the conceptualizations and the grammatical gender systems were investigated in the context of translation. In the first study (Chapter 4, Drzazga, Stroińska & Sullivan, 2012) the acceptability of gendered personifications of death that are incompatible with the personification that functions in the target culture is studied. The second study (Chapter 5, Drzazga & Stroińska, 2012), investigates the grammatical gender of death on the discourse and textual level.

3.1.1 The acceptability of foreign conceptualizations of death.

Many languages have words for "death," thus it would seem that this concept is not problematic in translation since the equivalents can be found. However, the translation of this concept becomes problematic if the grammatical gender of the target language equivalent does not agree with the natural gender of the personification of death. Assuming that the translator decides to use *foreignization,* the question arises whether readers are willing to tolerate the foreign conceptualization of key cultural concepts. In order to address this question, we decided to conduct a survey, and the results constitute the basis of Drzazga, Stroińska, & Sullivan (2012) – Chapter 4 and are mentioned in Drzazga and Stroińska (2012), Chapter 5.

3.1.1.1 Stimuli.

Two books by Terry Pratchett seem to provide the most appropriate stimuli to investigate problems related to incompatible grammatical genders in two languages. In these books, *Death* is a male character and his masculinity plays an important role in the plot, thus his natural gender cannot be easily changed. The choice of the material was further motivated by the fact that *Death* is not the only character that would prove to be problematic in the translation of these books. Other characters that were included in the survey are: *Time* (feminine in the original, masculine in the target language), *Pestilence* (masculine in the original, feminine in TL), and *War* (masculine in SL, feminine in TL).

We decided to concentrate on two languages – English (the original language of Pratchett's book), and Polish. Polish was chosen due to the strong feminine conceptualization of death functioning in the culture.

3.1.1.2 Survey.

The survey consisted of ten sentences – fragments of the Polish translations by Piotr Cholewa of *The Thief of Time* and *Reaper Man*. The sentences included characters from the books with both an incorrect – or foreign – gender agreement (e.g. *Śmierć nie oczekiwał*, $\text{Death}_{\text{FEM}}\text{not expect}_{\text{MASC}}$ – "Death did not expect"), and correct gender assignment (e.g. *Głód słuchał* $\text{Hunger}_{\text{MASC}}$ $\text{listened}_{\text{MASC}}$ – "Hunger listened").

We asked our participants to assess the naturalness and the correctness of the translations using a Likert scale 1-5 (1 meant "I like it very much" and 5 - "I dislike it very much"), the middle point – 3 stood for "I do not have an opinion" and was excluded from the original analysis. The reanalysis with the midpoint included is presented in the appendix to the article (section 4.13). Under each sentence, there was space provided for comments. The survey also asked if the participants were familiar with the *Discworld* series – a series of fantasy books written by Pratchett – as this would have influenced their responses because the fragments included in the study were taken from these books.

3.1.1.3 Participants.

The survey was administered among four groups of participants: 1) Polish native speakers in Poland with no or limited exposure to English, 2) Polish native speakers in Canada, 3) bilingual Polish and English Canadians, 4) Polish language learners in Canada. By including Polish native speakers in Poland and Canada, we wanted to check whether the knowledge of a language that has a different conceptualization of death influences the acceptability of masculine death in Polish. Bilingual Polish and English Canadians and Canadian learners of Polish

were asked to participate to see whether people, for whom Polish is not a dominant language, can recognize the problem of foreign conceptualizations.

3.1.1.4 Data analysis.

Two sets of data were collected in this investigation: the numerical measurements of the level of acceptability of the sentences, and the comments provided by our participants when asked about their interpretation of the different genders used.

It turned out that the comments were more informative than the numerical measurements, as our participants pointed out that sometimes they rejected the sentence, not due to the unfamiliar conceptualization used, but because they did not like the fact that abstract concepts such as *death* or *time* were being personified.

3.1.2 The grammatical gender of death: a textual and discourse approach.

In the following study we wanted to see what translation strategies are used by professional translators when they encounter such a challenging, from the grammatical gender point of view, concept as death.

In this study a traditional research method in translation studies of comparing two texts – source text and target text – was applied. The analysis was divided into four stages: 1) the investigation of the grammatical gender of the word for death and the natural gender of the conceptualization of death in both the source and target language cultures; 2) the comparison of the linguistic resources in the target language that have to be used when looking for translation equivalents (this step is suggested in Tabakowska, 2000); 3) the analysis of the source text to identify problematic phrases; 4) the analysis of the translation of a

chosen fragment in order to identify strategies that were applied by the translator to deal with the problems recognized in the third stage of the analysis.

3.1.2.1 Materials

Four texts were included in the study: *Cinderella* (various translations of the Brothers' Grimm fairy tale), *Harry Potter and the Deathly Hallows* (Rowling, 2007a), *Reaper Man* (Pratchett, 2009b) and *The Thief of Time* (Pratchett, 2002). All texts chosen for this analysis belong to popular literature. The reason for this selection is that the texts were supposed to reflect contemporary and everyday language usage. Moreover, in the case of the books, we analyzed the published translations, as we wanted to know how professional translators deal with problematic phrases. The fairy tale *Cinderella* did not contain the conceptualization of death, but it was used in the introductory part of the article to illustrate the general point of translation problems related to grammatical gender. We included the following languages in our analysis: English, German, and Polish and we occasionally refer to French. The languages were chosen for the study because of the differences in grammatical gender categorizations among them.

3.2 Translation Process Research

The study of the translation process and grammatical gender was based on Drzazga (in print) – Chapter 6, in which a new approach called the *cognitive approach to translation* is proposed. This cognitive approach is based on the assumption that translation is an instance of natural communication and has all of its characteristics. What is more, the investigation of translation needs to include the analysis of resources in the two languages. This approach also redefines the meaning, thus equivalents are found on the conceptualization level, not on a

lexical level. Finally, within the cognitive framework, new research methods are proposed.

These observations, combined with the question of the grammatical gender of death in translation, motivated the study on the process of translation and grammatical gender. These two topics constituted the focus of two chapters: Stroińska and Drzazga (2012) – Chapter 7A and Drzazga and Stroińska (submitted) – Chapter 7B.

3.2.1 Translation research methodology: an overview.

The investigation of the process of translation seems particularly challenging as it requires access to the cognitive processes operative during the tasks. What is readily available is the product – the target text, while the information about what happens while this text is being produced remains unknown.

The method that is most commonly used in the investigation of translation is the analysis of the product of translation – the tool that was used in our investigation summarized in Chapter 5. Normally, the target text is divided into small chunks – words or phrases – and these fragments are analyzed and compared to the source text. Then, depending on the focus of the research, different aspects of equivalency are assessed. In the traditional investigation of the role of the translator, it comes down to finding the perfect equivalent and the decision process is largely ignored.

In order to include the investigation of the translation process, the current translation studies have borrowed a research tool from psychology – Think Aloud Protocols (TAPs). During the collection of TAPs, a participant is asked to verbalize their thoughts simultaneously with the performance of the task – here the production of the target text. In other words, they are asked to access their

short term memory and this should give an insight into their cognitive processing (Ericsson & Simon, 1993).

If properly administered, TAPs are thought to provide a record of the decision making in the process of translation and "under the right circumstances [...] verbalizing is assumed not to interfere with the mental processes and to provide a faithful account of the mental states occurring between them" (Bernardini, 2001, p. 244). However, the proper administration of TAPs is difficult. First of all, the researcher has to be assured that the participant is actually producing protocols and is not involved in an interaction with the investigator. Secondly, it is assumed that the observer's effect plays a role, thus the participants are verbalizing not their natural stream of thoughts, but they are adjusting them to meet what they believe are the researcher's expectations. Furthermore, the participants are tempted to provide comments and make judgments about their own thoughts instead of simply saying what they think. Moreover, the data obtained in TAPs are highly influenced by personality and individual differences between participants thus the findings may not be generalizable (Bernardini, 2001). Finally, TAPs only provide information about processes that the participants are aware of. Bernardini (2001) lists further limits of TAPs research, such as the lack of an established research paradigm, the unsuitability of the data obtained through TAPs for statistical analysis, data presented in an anecdotal way, and, therefore, difficult to consider valid.

3.2.2 Translog and retrospective TAPs.

In our analysis we decided to use two tools to investigate the process of translation: Translog and retrospective TAPs. Translog is a key logger that records the process of typing and gives the researcher access to various stages of the translation production process. The recorded translation process may be

accessed in two forms: as a logfile – a file with all keystrokes and pauses recorded – or as a replay of the text production process. Translog was developed "to be an automatic, subject-independent tool for collecting hard, supplementary process data to the softer data collected by means of introspection, retrospection and think-aloud" (Jakobsen, 2006, p. 96).

The reply function that allows the researcher to see the recorded typing process in real time or at an adjusted speed makes it possible to collect retrospective Think Aloud Protocols. The collection of retrospective TAPs limited some of the problems with design mentioned above i.e., the fact that the verbalization may interfere with the translation task and the possibility of an interaction. The latter was made improbable as replay at a faster speed forced the participants to concentrate on the experimental task.

To conclude, the lack of data triangulation has always been a serious accusation against many translation investigations. In the present design, triangulation has been achieved as the data includes: the product of the translation (the translated text), the process of the translation recorded by Translog, and retrospective TAPs.

3.2.3 Participants.

According to previous research, the issue of whether non-professional translators are able to provide more data in their TAPs than professional ones because their translation lacks automaticity remains controversial, which the contradictory findings of Jääskeläinen and Tirkkonen-Condit 1991, Jääskeläinen, 1997, as cited in Bernardini, 2001, p. 249 have demonstrated. For the sake of our investigation, we assumed, based on Jääskeläinen1997 (as cited in Bernardini, 2001, p. 250), that semi-professional translators may provide the most insights as

they are trained to recognize the translation problems, but lack automaticity that makes introspection difficult.

Fifteen undergraduate students of McMaster University, seven female and eight male participated in this research. Their mean age was 23.2 years (SD=6.98). Thirteen listed English as their dominant language. For two English was their second language. At the time of the experiment they were all finishing an upper level German translation course. They did not have any formal translation experience outside of the classroom.

3.2.4 Procedure.

The investigator explained the procedures to follow upon the arrival of the participant and asked each to sign a consent form. After signing the consent form, the participant was seated in a comfortable chair in front of a computer screen. The experiment consisted of two parts: 1) the Translog key logging experiment and 2) the Think Aloud Protocol Collection.

In the first part of the experiment, the participant translated the text on the computer. The source text was opened in the Translog User component. The original text was presented in the top part of the window, while the bottom part was used for typing. The text was presented as a whole. The participants had an option of adjusting the size of the font, but none of them did so and all of them had the text presented in MS Sans Serif, font size 10.

Following the setting up of the experiment, the participant was left alone in the room. After the participant had finished the translation, the principal investigator went back to the room and offered the participant a short break. Next, the translation process recorded by the Translog key-logging software was played back to the participants and they were asked to comment on the translation process. The participants were watching their own typing as replied by Translog.

The window on the screen was divided into two parts: the top one presented the source text; in the bottom one they could see the typing. The participants did not have an option to stop the replay, but they were informed in advance that the speed could be adjusted, if they felt the time pressure was too high.

After the collection of TAPs, the participants were asked about the most problematic parts of the text. The participants' comments and the follow-up conversation were recorded. The experiment took up to two hours and at the end the participants were thanked and debriefed.

3.2.5 Data analysis.

To understand the process of translation better, both qualitative and quantitative methods were used. First, in the source text, phrases that included problems connected with grammatical gender were identified. In the target text the translation of these phrases was then found and the appropriateness of the translation was assessed. The translation was considered correct if a participant used the target language (English) grammatical gender system. The target text was also read to identify possible translation problems and to assess the quality of the translation product in general. Next, Translog logfiles were analyzed to understand the decision making process. In addition, an analysis of the pauses was performed. All pauses longer than 10 seconds (in Stroińska & Drzazga, Chapter 7A) or five seconds (in Drzazga & Stroińska, Chapter 7B) were counted and divided into two groups: before the sentence and within the sentence. The average durations and their standard deviations were calculated. The same calculations were used for the total length of the translation. Finally, Think Aloud Protocols were analyzed and the fragments in which participants commented on grammatical gender were transcribed.

3.3 Hybrid Nouns – Nouns with Dual Grammatical Gender

The study of hybrid nouns in Polish (Drzazga, submitted, Chapter 8) concentrated on their dual grammatical gender of this special group of nouns. The main research question was whether these nouns are truly used with both gender agreements, and, if so, whether the agreement is always consistent with the natural gender of the referent. The understanding of the usage of the nouns was gained through the analysis of four sources: native speakers' intuitions, corpus search, an internet search, and Translog dictation task.

The starting point for the analysis of each hybrid noun in this research project was the intuition of the researcher. These intuitions were always first checked by means of personal communications with other native speakers of Polish. The observations were then tested by a search in the National Corpus of Polish (retrieved from http://nkjp.pl) which includes more than 1.5 billion words. One word – *gapa* ('scatter brain') was searched in the corpus and all usages of the noun with a male referent were identified. Finally, two sentences with *gapa* – *Straszny z niego gapa* (terrible$_{MASC}$ from him scatter brain$_{HYBRID}$, meaning 'he is a terrible scatter brain') and *Straszna z niego gapa* (terrible$_{FEM}$ from him scatter brain$_{HYBRID}$, the same meaning as above) was searched on the internet, using the Google search engine to compare the frequency of occurrences. Both sentences have the same meaning 'He is such a terrible scatterbrain', but they differ in the gender marking of the adjective. These sentences were chosen since, in spoken Polish, this exclamation is a fixed phrase, and it may be used with different forms of the adjective for a male referent.

The study of hybrid nouns also included a dictation task that applied Translog as a means to collect the data. A short text with hybrid nouns was dictated by the researcher and the participants were asked to type the text on a computer. The text included hybrid nouns both with the feminine and the

masculine agreements. The hypothesis was that if either of the agreements was considered unnatural, the participants would hesitate, or make mistakes. However, the analysis of the results revealed that the task was inappropriate. Participants – seven Polish native speakers – were really focused on the orthography of the words and paid little attention to the content of the text.

3.4 Summary of Study Designs

As summarized in this chapter, the articles found in Chapters 4-8 use various methods to address research questions. This lack of consistency in the choice of methodology is caused by the fact that the studies address problems of a different nature. The achievements and limitations of these investigations and research design will be discussed in Chapter 9.

CHAPTER 4

4 PRATCHETT'S DEATH IN TRANSLATION: MASCULINE *ŚMIERĆ*?

4.1 Preface

In Drzazga (in print, Chapter 6) the new approach to translation research was illustrated with an example of a possible study based on differences in grammatical gender systems and the personification of culturally significant concepts. The focus of the discussion was on differences in grammatical gender systems as reflected by different conceptualizations of death. A fragment of *Reaper Man* by Terry Pratchett (2009b) served as a source of stimuli for the proposed empirical study. This suggestion constituted the starting point for the study presented in the present chapter.

The study is based on the premise that some languages, for example Polish, require grammatical gender marking for all nouns. These properties of nouns may have intriguing consequences on the textual level since the grammatical gender of the noun may have to be reflected by other parts of speech. In the following investigation, the influence of the grammatical gender of the noun *death* on the conceptualizations of *DEATH* is investigated. The study was designed to investigate how strongly the image of feminine *DEATH* is grounded in the Polish culture by analyzing the acceptability of different gender agreement patterns in translated text. More specifically, various groups of speakers of Polish were asked if they were able to accept foreign conceptualizations of culturally significant terms in the translation of Pratchett's book.

The chapter starts with the general discussion of the gender of *DEATH*, i.e. the gender of the conceptualization of the term. Then, it describes the

characters of Pratchett's books. The sections that follow include the summary of the experiments conducted to answer our research question and the analysis of the data.

The published report that constitutes this chapter has three authors. The author of this dissertation was in charge of specifying the research question and outlining hypotheses to be tested in line with the proposal put forward in Chapter 6. Moreover, it was the present author's responsibility to create and conduct the surveys labeled GD/MS in the article, under the supervision of Dr. Magda Stroińska, The input from Dr. William J. Sullivan includes: describing the Five Horsemen of the Apocalypse and Pratchett's characters (Section: The Five Horsemen Ride Again), as well as the summary of his surveys – labeled WJS. The introduction, data analysis of GD/MS surveys and conclusions were written by the author of this dissertation, with the supervision of Dr. Stroińska. Conclusions were discussed among the three authors but summarized and written by the author of this dissertation and revised by the co-authors.

The article presented in this Chapter was published in the volume *(Non)omnis moriar: Cultural and literary discourses of death and immortality* (Wawrzyczek & Kędzierska Eds., 2012). The formatting of the article, including section and table numbers, has been adjusted to adhere to the style of this thesis. The bibliography, which was left in its original format, is presented at the end of this chapter.

The text and the references of the original article are followed by an appendix that includes a reanalysis of the data collected by me and Dr. Stroińska (surveys labeled GD/MS).

Pratchett's death in translation: masculine *śmierć*?

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4.2 Introduction

Nothing is simple about death. However, at first glance, it might seem that translating the noun *death* should pose no challenges since death is a universal concept. Thus equivalents of *death* can be found in most languages. Nevertheless, finding an appropriate target language item to translate *death* is not always a straightforward task for a number of reasons. First of all, the word itself is often considered taboo and may have to be replaced by an appropriate euphemism. Moreover, in many languages death is represented as a change of state and these languages may lack the noun for death. For example, Circassian languages of the Caucasus use the verb *to die* as the only way to talk about the end of life. Interestingly, Anna Wierzbicka lists the verb *to die* as a proposed universal semantic primitive, but *death* as a noun is not part of that list.

The next problem with translating *death*, the one that is crucial for this paper, is that languages that employ grammatical gender may assign different gender to this word. For example, in Polish, *śmierć* is feminine, in German *Tod* is masculine, while in English *death* seems to be neuter. Such grammatical differences may result in different cultural conceptualizations of death. Therefore, in Polish culture, death is most often represented as a woman, while in German-speaking cultures, death is usually represented as a male figure. In English-speaking cultures, despite the neuter grammatical gender of the word *death* itself, death is most often personified as a man.

4.3 The Gender of *death*

Considering these cultural differences, the actual gender of *death* remains a problematic issue. An in-depth attempt to answer this question was undertaken by Guthke. He observes that most cultures which have an image of an embodied

death have a human image. Depending on the culture, death is represented as either a man or a woman; thus it could be hypothesized that the choice is influenced by the grammatical gender of *death* (for discussion on the relation between grammatical gender and the gender of conceptualizations see Jakobson).

This issue has been tackled experimentally in a series of studies by Boroditsky, Schmidt, & Phillips, who present evidence that language influences the way we perceive the world, and grammatical gender makes us focus on certain qualities of an object. Language, they argue, has the power to bias people's memory as well as their descriptions of words and pictures (On the notion of relative points of view and linguistic representations of culture cf. Stroińska). In another study, Konishi showed that high-frequency words carry connotations of femininity or masculinity because of their grammatical gender, thus grammatical gender may itself be a form of personification. However, there is no one-to-one correspondence between the grammatical gender of a noun and the physical gender of its embodiment. There are many examples in which the embodied gender of death differs from the one predicted by the grammatical gender of *death* in a given language. This observation was confirmed by Segel & Boroditsky, who found that the grammatical gender of nouns in the native language of an artist agrees with the physical gender of their conceptualization only 78% of the time.

In this paper, we analyse how strongly the conceptualization of death as a woman is established in Polish culture and the Polish language. Our main research question is whether Polish readers can accept the masculine death in a translated text. The question was inspired by the translation experiment proposed by Drzazga.

In order to answer this question we examine the reaction of readers when they encounter an image different from the one common in their native language. We conducted a series of surveys based on excerpts from Terry Pratchett's

Discworld novels involving concepts such as death, war, famine, etc. In this study we concentrate on just one concept – *death*, but in our surveys we also included the names of the remaining Horsemen of the Apocalypse and other concepts that pose the same translation problem – the gender of the conceptualization in the target language. In the following section of the paper we justify and explain our choice of texts. Then, we summarize our findings and discuss the results.

4.4 The Five Horsemen Ride Again

In the Bible there are Four Horsemen of the Apocalypse of St. John: War, Famine, Plague, and Death. Death is the leader. The personifications of the Four Horsemen ride out at the end of the universe in Pratchett's novels of *Discworld*: *Wojna* 'war', *Glód* 'famine' *Zaraza* 'pestilence' and *Śmierć* 'death'. In *The thief of time* Pratchett introduces a Fifth Horseman, Chaos.

In the Pratchett *Discworld* series, the Horsemen are male, just as in the Bible. Indeed, *jeździec* 'horseman' is masculine gender in Polish, just as *horse**man*** is in English. But in English we can say *horse**woman***. The problem is how to translate that into Polish while retaining the morphological resemblance to *horseman*. Traditional Slavic word-formation does not offer any viable suggestions. Moreover, the male nature of two of the Horsemen is reified in Pratchett's novels in different ways. War is married, and his wife plays a role in *The thief of time*. Death has a daughter and a granddaughter in several novels; they call him (grand)father. In another novel, *Reaper man*, Death loses his position for a time and goes among humans as an itinerant farmhand under the masculine pseudonyms Beau Nidle and Bill Door, and a little girl who perceives his true form calls him Mr. Skellington, to her parents' chagrin. Death's masculine persona in Pratchett's novels is beyond doubt. Finally, in *The thief of*

time Time is also personified, but as a woman. In fact, the thief of the title is her son.

It is possible at this point to pose difficult questions about culture or cultural biases, but we limit ourselves to the problem of how to translate the names of the Horsemen into Polish while taking their personae into account. Piotr Cholewa, in translating *The thief of time*, used the names from the Bible. Grammatical agreement, however, was according to the sex of the characters, i.e. *Śmierć był* 'Death$_F$ was$_M$' but *Czas była* 'Time$_M$ was$_F$'.

We formulated a number of separate surveys in order to learn how Poles react to these choices. William J Sullivan (WJS) administered three different surveys to four groups of subjects: three sets of students in the Institute of English at UMCS and to English faculty at UMCS and Uniwersytet Wrocławski, while Grażyna Drzazga and Magda Stroińska (GD/MS) used four groups of participants: 1) Polish native speakers residing in Poland, 2) Polish Canadians, 3) people born in Canada but raised as bilingual speakers of Polish and English, 4) university students of Polish in Canada. The surveys conducted by WJS are summarized first.

4.5 WJS Surveys

All the respondents were native speakers of Polish and fluent speakers of English. Several students but only one faculty member (a specialist in children's literature, fantasy, and science fiction) admitted to having read *Discworld* novels. There were problems with each survey and the responses evoked; hence WJS redid the survey after each administration. The results were unsatisfactory over all, but some interesting findings did emerge.

4.6 Survey 1

The first survey had ten translated sentences to be evaluated on a Likert scale (1 = strongly dislike, 5 = strongly like). In addition to #4 *Śmierć znalazł Zarazę w szpitalu* 'Death found Pestilence in a hospital' and #10 *Śmierć nie oczekiwał niczego innego* 'Death had expected nothing else', which were central to our research, the survey had sentences in which the subjects were *Czas* 'time', *Zaraza* 'Pestilence' and *Wojna* 'War' with past tense verbs requiring gender agreement with the subject or pronoun replacements. There was also a request for translations of the names of the Four Horsemen of the Apocalypse, i.e. Death, War, Famine, and Pestilence.

The survey was filled out by 55 students of a fifth year seminar in English Studies at UMCS. There is no discernible pattern to the ratings. Worse, some ratings seem to be contradictory. *Zakochała się w człowieku* 'she fell in love with a man' (#2) got a combined rating of 2.44, whereas (#3) *Czas miała syna* 'Time$_M$ had$_F$ a son' got only 1.85. The difference was disappointing. WJS had told the respondents that the three sentences were from one paragraph and should be treated as such. Moreover, these were students in a class devoted to the interrelations between discourse structure and syntax. Yet interviews determined that, in spite of this, they had treated the three sentences as isolated examples and not as parts of a greater whole. The lack of a pattern in answers then becomes less surprising. Still, these results were not useful.

One useful result did emerge. A final question asked for alternate names for Death and the other Horsemen that would eliminate the problem of gender agreement. In spite of the grammatical difficulties, the overwhelming majority went with the traditional names (*Śmierć*, *Zaraza*, *Głód*, and *Wojna*). The suggestions offered were then incorporated into the other two surveys.

4.7 Survey 2

The second survey was prepared for faculty at the English Institutes of UMCS and UW. The respondents were asked to evaluate the sentences as teachers of a translation class, where the translation assignment was an excerpt from a fantasy novel. The same rating scale was used. This time the survey itself had explicit information concerning context, and the three groupings of sentences were placed on separate pages. The respondents were also asked not to look at succeeding page(s) until they had completed the present page. Finally, they were asked to rate the translations of *Death* that had been suggested by the respondents of the first survey, namely *kosiarz*$_{M}$'reaper (man)', *kostuch*$_{M}$ 'death', *mroczny żniwiarz*$_{M}$ 'grim reaper', *szkielet*$_{M}$ 'skeleton', *śmierć*$_{F}$ 'death (ignoring agreement problems), *pan śmierć*$_{M}$ 'mister/lord death', *jeździec śmierć*$_{M}$ 'horseman death', *zgon* 'demise'. They were also encouraged to comment freely and some of them did.

The highest-rated example was *Słyszałaś o personifikacji Czasu?* 'have you heard of the personification of Time?', which had a combined rating of 3.22. There are no possible grammatical problems with this translation, so it was at first a mystery as to why it did not get a higher rating. The comments cleared this up: many were unable or unwilling to accept the idea of Time being a character in the novel. Still, in the context of that sentence, *zakochała się w człowieku* 'she fell in love with a man' got an average rating of 3. No other sentence was rated above 1.89. Most surprising was the reaction to *ja ... pomyślę o tym* 'I'll ... think about it', which was rated 1.89. The comments focused on two factors irrelevant to our study: the overt subject pronoun and the ellipsis. One commented that *ja* never appears in spoken Polish, which is simply untrue. Several criticized the ellipsis without saying why, but one linguist wrote that the ellipsis was all right, so long as it was intended to communicate hesitation. Evidently some respondents

thought WJS had left out text, which was not the case. Several colleagues suggested how to improve the translation. However, in no case did their suggestions actually face the problems of gender agreement. Instead, they avoided them in favor of producing a higher quality target text.

Two colleagues and one student had insightful comments on the problem. One colleague is a specialist in fantasy and children's literature, the other and the student are in linguistics. They suggested that in the case of an emotionally charged word like Death, personal sympathies might come into play. WJS then decided to administer the survey again, this time to students who had the same information on context as the faculty members.

We return to the ratings of the various possible names for Death below.

4.8 Survey 3

This time the evaluations were much more positive, ranging from 3.2 (ratings from 1 to 5) for *a z tyłu trzymała się męża pani Wojnowa* 'while from behind Mrs. War held on to her husband' to 4.9 (ratings from 4 to 5, as some felt that it was too easy to deserve a 5) for *jestem – powiedział Głód* '"I am," said$_M$ Famine$_M$'. The low ratings for the first example were given because some respondents hated the form *Wojnowa* 'Mrs. War, War's wife': the *-owa* suffix is almost exclusively added to nouns that have masculine form, and its use here was seen as violating a pattern in derivational morphology. Yet at least one respondent, who gave it a 5, and WJS thought this was a clever and creative translation.

WJS had one further opportunity to administer this survey to a more general audience, mostly students. The responses paralleled those of the previous survey taken by students, raising the question of whether this was a student-

faculty split or a generational divide. The only opportunity for a direct comparison was in the ratings of the names for Death.

4.9 The names for Death

The list of possible names for Death contains all the examples suggested by students who took the first survey and includes translations given by Cholewa as well as one suggested by WJS. **Table 1** provides the comparative scores. Remember that faculty took Survey 2 and two groups of students took Survey 3.

Table 1. The names for death compared

Death	Faculty	St1	St2
Kosiarz	2.00	3.67	3.85
Kostuch	3.33	2.89	3.08
Mroczny żniwiarz	2.88	3.56	4.14
Szkielet	1.33	2.22	2.71
Śmierć*	2.33	4.67	4.61
Pan Śmierć	2.56	3.89	3.23
Jeździec Śmierć	2.67	3.56	3.56
Zgon	3.33	2.44	2.05

*And pay no attention to problems with agreement.

An examination of the numbers in **Table 1** shows two overall patterns. First, student ratings were substantially higher than ratings given by faculty, except with *Kostuch* and *Zgon*. These two choices got the highest scores from the faculty by a wide margin and the lowest scores from the students. Several students commented that *Zgon* was simply inappropriate for an active participant in the

story. Second, the two groups of students show the same patterns of high and low ratings for the different names, though the total number of participants was in no case large enough for statistically robust findings.

One further observation concerns consistency. In rating the sentences, those with *Śmierć* and anomalous agreement got consistently low ratings from students. Yet both groups found that choice to be the most acceptable, even higher than *Pan/Jeździec Śmierć*, which would have eliminated the problem.

All groups were given the same instruction regarding their task: to rate the materials as if they were teachers in a translation class. We suggest that the faculty rated the materials as they would judge these answers academically, and comments from two literature specialists bear this out, but the students rated the material as they would hope they were graded, if they had handed them in.

With an issue as emotionally charged as Death, it appears to be hard to step aside from your own role in life.

4.10 GD/MS Surveys

The first survey created by GD & MS consisted of ten questions. The researchers used the Likert scale from one to five (1: *I dislike it very much,* 5: *I like it very much*) and asked the participants to assess the correctness and the naturalness of the sentences provided. They informed the participants that these sentences were translations. For the sake of this analysis, the *I do not know* ratings were excluded, as it seemed that the participants often chose this answer to finish the survey quicker, thus this opinion was not informative.

The sentences, apart from the target noun *śmierć*, included other names of the Horsemen of the Apocalypse (War, Pestilence, and Famine). In total, five sentences involved a violation of gender agreement between subject and verb. The most important sentences for our study were: *Śmierć nie oczekiwał niczego*

innego 'Death$_F$ had not expected$_M$ anything else' and *Śmierć chwyta za kubek szkieletową dłonią* 'Death$_F$ grabs$_{NO\ GENDER\ MARKING}$ mug with a skeletal hand'. Only the first of these sentences has incorrect grammatical gender agreement, as in the second the verb is in present tense; which has no gender marking.

The survey was first distributed among Polish native speakers who live in Poland and do not speak English. It was assumed that their answers should not be influenced by knowledge of the language of the source text or of the source culture. We hypothesized that this group should have a strong negative reaction towards the male personification of death.

On the basis of the ten replies received, this hypothesis was confirmed. The mean rating was 2.4 (SD 0,97) for sentence #5 (Death$_F$ had not expected$_M$) and 3.9 (SD 0.57) for sentence #6 (Death$_F$ grabs$_{NO\ GENDER\ MARKING}$).

An interesting comment was made by one of the respondents, who pointed out that, if *death* was the name of the character, the name should not be translated. As a fan of fantasy books, the participant said that proper names left in the original and explained once in a footnote always sound better than any attempt to translate them.

The same survey was sent to a group of Polish immigrants in Canada. On the basis of nine responses, this group assessed sentence #5 (Death$_F$ had not expected$_{M)}$ as more acceptable than the Polish group (mean 3.11, SD = 1.36), but the difference is not significant. Sentence #6 was rated as 3.67, (SD 1.32).

Finally, the same survey was sent to English-Polish bilinguals in their early 20s who were born in Canada. Polish is their non-dominant language and their contact with Polish culture is limited. This group was significantly smaller, as just four people responded. To our surprise, they rejected the incorrect gender agreement in the most decided manner. Sentence #5 was given a rating of 2 (*I do not like it*) by all our respondents. The summary of our results is presented in **Table 2**.

Table 2. Summary of participant responses (1- *I dislike it very much*, 5 – *I like it very much*)

	(#5) Śmierć nie oczekiwał niczego innego.	(#6) Śmierć chwyta za kubek szkieletową dłonią.
Polish Group	2.33 (SD=1)	4.13 (SD=0.35)
Polish Canadians	3.11 (SD=1.36)	4.00(SD=1.55)
English-Polish bilinguals born in Canada	2.00 (SD=0)	4.00(SD=0.58)

The final part of our investigation took place at McMaster University in Canada. Our participants were students studying Polish to fulfill the language requirement of their programs or for personal reasons. The goal of this survey was to check if a new linguistic phenomenon – grammatical gender – influences the assessment of the conceptualization of death.

The questionnaire was similar to the one previously used; however, it consisted of only three sentences: (#1) *Śmierć pokiwał głową* 'Death$_F$ nodded$_M$ head', (#2) *Śmierć chwyta kubek dłonią* 'Death$_F$ grabs$_{\text{NO GENDER MARKING}}$ mug with hand', (#3) *Śmierć nie oczekiwała niczego innego* 'Death$_F$ had not expected$_F$

anything else'. We hypothesized that for this group there should be no differences in the assessment of sentences.

The group originally consisted of 39 participants; however, only 18 respondents were included, as we excluded all who claimed that they did not understand the sentences. Sentence #1 – the sentence with grammatical gender violation – was rated 2.43 (SD=1.09). Sentence #2 – in the present tense in which the problem of gender agreement does not appear – was rated 2.53 (SD=1.13), while sentence #3 – with the correct gender agreement – was judged to be slightly more acceptable – 3 (SD=3.06). Our hypothesis was confirmed, as the differences between ratings of the sentences were not significant.

After the participants handed in the surveys, we asked the group what, for them, is the gender of death. Of 39 people, only five declared that death is a woman, while a masculine death was imagined by 14 respondents. What we found most interesting, however, was the fact that most of the respondents claimed that they reject any personification of death, regardless of gender.

In sum, the results of our surveys were surprising. We anticipated that the group of Polish native speakers in Poland should have the strongest reaction toward the incorrect conceptualization of death. However, it turned out that it was the group of Polish-English bilinguals that rejected the male representation of death most strongly. One explanation could be that for these participants the correct or even purist usage of their second language – the language of their parents – is a priority. Moreover, we discovered that very often the rating of the sentences was influenced by the fact that many respondents rejected any personification of death, regardless of gender.

4.11 Conclusion

Our (= GD, MS, & WJS) research question was: Is the image of death as a woman so strongly established in Polish culture that a Polish audience would not be able to ignore this archetype?

Unfortunately, we cannot answer this question in a satisfactory way. Our results are not consistent and there are no patterned or significant differences between different groups of participants. Nevertheless, in our investigation we observed some reactions that are worth more in-depth research. For example, why are Polish Canadians (first generation Canadians) willing to accept a foreign conceptualization of death while their children (second generation Canadians) are decidedly more prescriptive?

However, the most interesting observation we made was that what seemed to be a purely linguistic issue – differences in the grammatical gender of concepts and subsequent problems in grammatical agreement – cannot be easily researched, as it turns out not to be a purely linguistic problem after all. In all of the answers that involved assessing the sentence with the word Death, the reactions that we received were not just grammatical, but they were emotional and we could not control for this aspect. Thus we reiterate what we stated in the introduction: nothing is simple about death.

4.12 References to Chapter 4 (Also included in the main bibliography at the end)

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4.13 Appendix to Chapter 4

In the surveys labeled GD/MS, we used the Likert scale from one to five (1: *I dislike it very much*, 5: *I like it very much*) and, as mentioned in section 4.10, answer 3 – *I do not know* /*I do not have an opinion* was excluded from the analysis. This response was eliminated since we suspected that it was chosen in order to finish the survey sooner, thus we felt it was not informative. However, it was brought to our attention that the use of means with dropped midpoint may be considered inappropriate, thus this section includes a reanalysis of the data.[1]

In the article, it was concluded that the first group of respondents – Polish native speakers – strongly rejected sentences involving masculine gender agreement used with the noun 'death'. The respondents gave sentence #5 ($Death_F$ had not $expected_M$) on average 2.4 points (SD 0.97) and 3.9 points (SD 0.57) was the response to sentence #6 ($Death_F$ $grabs_{NO\ GENDER\ MARKING}$). The present reanalysis does not change the conclusions since there was only one *I do not have an opinion* response for sentence #5 and none for sentence #6.

While re-considering the data from the second group of respondents – the group of Polish immigrants in Canada – a mistake in the text of the article was spotted. The main text of the article gives the mean for sentence #6 with midpoint included as 3.67 points (SD=1.32), while Table 2 presents the mean without the midpoint (4.00, SD=1.55). Sentence #5 was never given the rating of 3 by this group of participants. The conclusions, therefore, do not have to be adjusted as the observation that the two sentences, although one of them includes grammatical gender violation, were judged as similarly acceptable remains correct.

The review of the data for the final group of respondents – English-Polish bilinguals – resulted in the corrected means, 2.25 points (SD 0.5) for sentence #5

[1] I would like to thank Dr. Ellen B. Ryan for suggesting this reanalysis.

and 3.75 points (SD 1.26) for sentence #6. The summary of the adjusted results is presented in the table below.

Table 3. The reanalysis of participants' responses (1- *I dislike it very much*, 5 – *I like it very much*)

	(#5) Śmierć nie oczekiwał niczego innego.	**(#5) Śmierć nie oczekiwał niczego innego.**	(#6) Śmierć chwyta za kubek szkieletową dłonią.	**(#6) Śmierć chwyta za kubek szkieletową dłonią.**
	Original analysis	**Re-analysis**	Original analysis	**Re-analysis**
Polish Group	2.33 (SD=1)	**2.5 (SD 0.85).**	4.13 (SD=0.35)	**3.9 (SD 0.57)**
Polish Canadians	3.11 (SD=1.36)	**3.11 (SD=1.36)**	4.00(SD=1.55)	**3.67 (SD=1.32)**
English-Polish bilinguals born in Canada	2.00 (SD=0)	**2.25 (SD 0.5)**	4.00(SD=0.58)	**3.75 (SD 0.96)**

As illustrated in Table 3, the inclusion of response 3 has not influenced the conclusions drawn at the end of the article. On the other hand, the reanalysis of the data with the midpoint included increased the reliability of the results, since the exclusion of the mid answer might have been considered a distortion of data.

CHAPTER 5

5 THE GRAMMATICAL GENDER OF DEATH: A TEXTUAL AND DISCOURSE APPROACH

5.1 Preface

In the preceding chapter (Chapter 4), the gender of death was investigated in the context of the reception of translated texts. In the present chapter, the grammatical gender of *death* and the assumed gender of the conceptualization are approached from the point of view of text and discourse.

Using examples from three languages: English, German, and Polish, we discuss translation problems caused by the variation of the gender of *death* in respective languages and cultures. The chapter in part overlaps with Chapter 4 as it includes a short summary of the study conducted by Drzazga, Stroińska & Sullivan (2012).

This article is a result of my collaboration with my supervisor – Dr. Stroińska. The division of labour was as follows: Dr. Stroińska wrote the introduction, the sections on the category of gender in general and on the misalignment of grammatical and natural gender. I was responsible for the part on translation problems related to grammatical gender, the summary of the empirical study, and the sections on the personification of *death* and the gender of personified *DEATH*. The conclusions were written by both authors together and all drafts of the paper were jointly revised.

The article was published in the journal *Tekst i dyskurs/ Text und diskurs.* The original paper was preceded by three versions of the abstract: in English, Polish, and German. To avoid redundancy, this chapter includes only the English

version of the abstract. The numbering of sections has been changed to follow the format of the rest of the thesis, while bibliography and reference style remain unchanged.

The grammatical gender of Death: a textual and discourse approach

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Published in *Tekst i Dyskurs – Text und Diskurs*, 5, 324-340.

5.2 Abstract

The assignment of grammatical gender is among the most intriguing problems in human language. In this paper we discuss the question of semantic versus morphological motivation for gender assignment and agreement by analyzing the grammatical gender of one of the key cultural concepts, i.e. *death*. In our analysis, we consider how the grammatical category influences conceptualizations of *death* in the cultures and discourses of various nations. We will refer to the images of *death* in three different languages and cultures: English, German and Polish. Finally, we will illustrate the cross-linguistic problems potentially caused by such differing conceptualizations by analyzing translation challenges connected with the noun *death* on examples from contemporary popular literature in those three languages. It seems that at the discourse level the semantic cues can influence grammatical gender and override morphological motivation, even in the case of such an important concept as *death*. The personification of *death* is a type of hybrid that allows agreement patterns which would be considered incorrect from a purely grammatical point of view.

5.3 Introduction

Many languages do not use the category of grammatical gender, but those that do employ a variety of often very intricate systems for the classification of nouns. Many Indo-European languages use a two or three gender distinction but some, like English, have retained gender distinctions only in their personal pronoun system. Other language families, for example the Niger-Kordofanian family in Africa, use much more complex systems of noun classification, often based on the external properties of objects, such as their shape or purpose, etc.

In this paper, we shall discuss some properties of the gender systems in English, German and Polish, with occasional observations about other Indo-European languages. The emphasis will be on the question of semantic versus morphological motivation for gender assignment and, further, on the issue of the effect of the above distinction (semantic versus morphological gender) on the agreement patterns used. While we discuss a variety of agreement choices available, we focus our observations on the gender and agreement patterns of one particular noun: death. We argue that what may appear to be a purely grammatical question concerning the options made available by the language system may in fact have far-reaching effects at the level of discourse and conceptualization. Does the grammatical gender of death affect the ways in which cultures conceptualize and personify death? If so, could it affect the ways in which this unavoidable stage of human life is perceived and dealt with in social terms? We finish with a brief look at the difficulties that may arise when the gendered concept of death needs to be translated into a language that imposes a distinctly different gender assignment.

5.4 The Category of Gender

Theoretically, there are several ways gender may be assigned in human languages. One possible way is a strictly semantic gender assignment, illustrated for example by Tamil, where nouns are divided into three categories: those that refer to male human beings and male gods (labeled as masculine or male rational), those that refer to female human beings and female goddesses (feminine or female rational) and other (neuter or non-rational) for virtually everything else (cf. Corbett 1991: 8-9, based on Asher 1985). Dyirbal, an Australian language, has four "genders" divided in such a way that they inspired George Lakoff's famous 1987 book *Women, fire and dangerous things: What Categories Reveal about the*

Mind. Class I nouns refer to most animate objects and men; Class II refers to women, water, fire, weapons and forms of violence, and some animals considered exceptional; Class III refers to edible fruits and vegetables; Class IV refers to various things that were not included in classes I-III (cf. Corbett 1991:15).

The Niger-Congo family of languages is known for complex systems of noun classification. Kujamaat Jóola, spoken in Senegal, West Africa, has 19 noun classes, recognized based on their distinctive agreement patterns. In Kujamaat Jóola, in particular, most human referents, irrespective of their natural gender, belong to class 1 and 2 (classes are paired since they represent Singular and Plural forms, here with prefixes *a-* and *ku-* respectively), but some particular words referring to humans are also scattered through other classes. The underlying rationale for class membership is often difficult to establish. Class 7 and 8 (*ka-/u-*), for example, contain bones, bony objects, body parts, most containers, one type of frog and language (Aronoff and Fudeman 2005: 56-64).

Most Indo-European languages have gender systems based either on the phonological or morphological features of words. In German, nouns that refer to creatures of differentiable sex are generally assigned the grammatical gender corresponding to their sex. Thus, *der Vater* ('father') is masculine and *die Mutter* ('mother') is feminine despite having the same ending, which usually indicates masculine nouns. For complex nouns, it is the derivational suffix that determines the grammatical gender. Thus, the word *Mädchen* is neuter even though it refers to a girl: its neuter gender is the result of the diminutive suffix *–chen*. If, on the other hand, semantic gender assignment were to dominate, we would expect it to be feminine. In addition, all inanimate objects, plants, etc. are also assigned to the three genders and the reasons for the particular gender assignment are not always obvious (for more details cf. Schwichtenberg & Schiller 2004).

In the Slavic languages, the assignment to one of the three genders operates partly on a semantic basis: there is a differentiation between masculine

and feminine for human beings and animals where the gender matters or where the gender distinction is visible. The masculine and feminine genders are also assigned to many other nouns based on their morphological properties, whereas the third gender – neuter – takes care of the remaining nouns. Where the gender assignment is not based on semantics, it is still predictable as it is based on the declension paradigm that the noun belongs to. As for the formal properties of gender in Polish, as noted by Corbett (1991), "gender agreement depends on interaction with tense" (p. 126) and grammatical gender on the verb surfaces only in past tense forms. Historically, as with Russian (Corbett, 1991), Polish past tense verb forms were derived from a compound past tense element: the passive participle. This participle was based on the infinitive and formed with the suffix –ł –. It was marked for gender by means of the addition of appropriate suffixes. In the compound past tense, the participle followed the auxiliary verb 'to be', but the auxiliary verb was shortened around the 14th century and disappeared almost completely in the 16th century (Klemensiewicz/ Lehr-Spławiński/ Urbańczyk 1965: 367-374).

In Polish, the grammatical gender of nouns serves as a classifying category – nouns have gender, but do not decline for gender (Grzegorczykowa 1993: 447). For all remaining parts of speech that are marked for gender, it is an inflectional category which reflects the subordination of these parts of speech to the noun phrase. Thus, when it comes to the agreement between the subject and the verb in Polish, the subordinate verb always has the gender of the head noun or pronoun (Grzegorczykowa 1999: 214). In Polish, separate forms for all three genders occur not only in the third person singular ('on' for masculine, 'ona' for feminine, and 'ono' for neuter) – a situation which Corbett (1991) describes as "relatively common" (p. 128), but also in the third person plural ('oni' for virile and 'one' for non-virile). However, all other pronouns have inherent gender based on the referent and they assign gender feature.

5.5 Misalignment of Grammatical and Natural Gender

In languages marked for gender, any structural element that is a target for agreement has to show it. This means that attributive adjectives, the verb, predicative adjectives and anaphoric pronouns will have to show gender agreement with the controller noun phrase (the noun phrase that determines the agreement). Since grammatical gender is often motivated by the word's form rather than its meaning, the grammatical gender and natural gender of an animate referent do not need to be the same. In such cases, the question arises of whether the agreement should be motivated by semantics or by morphology. For example, if a morphologically masculine or neuter noun refers to a female, could the speaker choose feminine agreement? And further, does the hierarchy of agreement arrangements most likely affected by semantics follow Corbett's (1979, 1991, 2006) agreement hierarchy? Corbett proposes four positions in his agreement hierarchy: attributive > predicate > relative pronoun > personal pronoun, and states that "as we move rightwards along the hierarchy, the likelihood of semantic agreement will increase monotonically" (p. 226). In addition, the variation of gender assignment in predicates is constrained by the Predicate Hierarchy: verb>participle>adjective>noun (Corbett 2006: 233).

Let us have a look at a simple example involving a fictional female character, Cinderella. In English, the word itself has no inherent gender. However, morphologically, it is a compound whose final part sounds like a girl's name: Ella. Apart from that, 'every child' knows that Cinderella was a young girl and so, in English, we can expect sentences such as the following, with feminine personal pronouns:

> 1. She [Cinderella] gave them the best advice she could,
> and gently and submissively offered to dress them herself, and especially to arrange their hair, an accomplishment in which she excelled many a noted coiffeur.
> (Lorioux, n.d.)

In the most popular German version of Cinderella, published in the 1887 collection of fairy tales by Jacob and Wilhelm Grimm, the main protagonist is called *Aschenputtel*. The noun is neuter and so the agreement needs to select either the semantic aspect of the controller (the young girl, i.e. a female) or the morphological aspect (a neuter noun). However, the German word for 'girl', *das Mädchen*, is also neuter and so the neuter form of the pronoun may have additional motivation. In German, the verb does not inflect for gender and so we can only observe agreement patterns for articles, attributive adjectives and pronouns.

> 2. Aschenputtel ging alle Tage dreimal darunter, weinte und betete, und allemal kam ein weißes Vöglein auf den Baum, und wenn es einen Wunsch aussprach, so warf ihm das Vöglein herab, was es sich gewünscht hatte.
>
> Thrice a day Cinderella (*neuter*) went and sat beneath it, and wept and prayed, and a little white bird always came to the tree, and if it (*neuter*) expressed a wish, the bird would throw down to it (*neuter*) what it (*neuter*) had wished for.
> (Aschenputtel / Cinderella (n.d.))

The Polish name for Cinderella is *Kopciuszek* and it is masculine. The available translations are quite varied. In one translation of the Charles Perrault version of the story, the morphologically masculine name *Kopciuszek* is used with the feminine form of the verb and with the feminine form of the predicative adjective:

3. Kopciuszek mimo lichych sukienek była jednak sto razy piękniejsza od swoich sióstr.
Despite poor dresses, Cinderella (*masculine*) was (*feminine*) a hundred times more beautiful (*feminine*) than her (*same form for all genders*) sisters.
(Kopciuszek, version A)

The translation of the Brothers Grimm version available on the same website uses masculine verb agreement for the name *Kopciuszek* but then switches to the word girl to refer to Cinderella and follows it with a feminine personal pronoun:

4. Tańczył tak Kopciuszek aż do wieczora, a gdy nadszedł czas powrotu, królewicz, który chciał się koniecznie dowiedzieć, kto jest ta piękna dziewczyna, rzekł do niej…

Cinderella (*masculine*) danced (*masculine*) until the evening and when the time came to return home the prince, who insisted on knowing, who this beautiful girl (*feminine*) was, said to her (*feminine*.)…
(Kopciuszek, version B)

The next version quoted here is even more complex. It starts using the masculine verb agreement with the masculine noun *Kopciuszek* and then switches to the feminine agreement after an inserted description of Cinderella as a poor and rejected girl (‘*dziewczę’*), which in fact is a neuter variant of the noun in Polish. Thus, within one sentence, all three gender forms have been used:

> 5. Zdziwiona i ze złości prawie od zmysłów odchodząca macocha i siostry przyrodnie, musiały patrzeć bezsilnie, jak zabiedzony (*masculine*) Kopciuszek (*masculine*), to nieszczęsne, wzgardzone (*neuter*) przez nich dziewczę (*neuter*), wsiadła (*feminine*) do karety i jak ją (*feminine*) powieziono na ślub z królewiczem.
>
> The stepmother, surprised and almost losing her mind from anger, along with the stepsisters, had to helplessly watch how the miserable (*masculine*) Cinderella (*masculine*), this unhappy (*neuter*) girl (*neuter*), rejected (*neuter*) by them, got (*feminine*) into the carriage and how she (*feminine*) was driven (*impersonal*) to the wedding with the prince. (Kopciuszek, version C)

The above examples follow, by and large, Corbett's agreement hierarchy: in German, agreement generally obeys the grammatical gender of the noun (neuter). Even if the neuter noun *Aschenputel* were replaced by the word 'girl' (German *Mädchen*), the agreement would stay the same as the noun 'girl' is also neuter in German. The only instance of a feminine reference would be the personal pronoun *sie*. Robinson (2010:160) challenges this somewhat simplistic interpretation of morphological gender agreement in the case of Grimms' fairytales. He proposes that:

> the Grimms' usage of the pronouns *es* and *sie* to refer to girls is neither random nor tightly related to accompanying nouns referring to the same girls (though even if it were, the choice of the latter needs explaining). Instead, I claim, the more positive pronoun *es* frequently refers to young, unsexed, nice and/or good girls, while the pronoun *sie* frequently refers to older, sexed, naughty and even bad girls, and of course women. The problem is, a given individual may not fall on the same side of all three of these axes, or not always in the same story.

Robinson quotes numerous examples of the pronoun switch from *es* to *sie* based solely on the plot development (i.e. the good little girl – *es* - becoming available for marriage and turning into a *sie*) thus calling into question the strictly

morphological motivation for gender agreement in German. One particularly convincing argument is that neuter nouns used to describe male referents do not trigger the use of pronoun *es* but rather the masculine *er* (e.g. *das Schneiderlein,* in "The Brave Little Tailor," where the diminutive suffix makes the noun neuter - cf. Robinson 2010: 153).

> 6. Das klang dem Schneiderlein lieblich in die Ohren, er steckte sein zartes Haupt zum Fenster hinaus und rief: "Hierherauf, liebe Frau, hier wird Sie Ihre Ware los."
> (Grimm 1857, v. 1: 127)
>
> That sounded sweet to the ears of the little tailor (*neuter*); he (*masculine*) stuck his (*same for masculine and neuter*) delicate head out of the window and called out: "Up here, dear lady, here you can sell your wares." (after Robinson 2010:153)

These exceptions seem to conform to the generalization stated above and to Corbett's theoretical assumptions. Apart from the complex use of pronouns in Grimms' fairy tales which seems to follow 'moral' rather than morphological motivation, modifying adjectives agree in gender with the noun they modify (cf. example 5). Verb agreement (in Polish), on the other hand, follows either the semantic clues regarding the natural gender of the person (feminine) or the grammatical gender of the subject noun. We discuss the case of Cinderella here because it involves grammatical gender that is at odds with the natural gender of the referent. Even though the referent is a fictional character, it is imagined as human and the feminine characteristics of Cinderella are an inherent part of the plot. Interestingly, as suggested by an anonymous reviewer, if the name 'Kopciuszek' were replaced by a neuter noun 'dziewczę' ('a girl') the acceptability of sentences in which the verb agrees with the natural gender of the subject would be much lower (dziewczę$_{NEUT}$ była$_{FEM}$ 'girl was'). This observation

is confirmed by a search of the National Corpus of Polish, which does not contain any examples in which 'dziewczę' – was followed by a verb in the past tense with gender other than neuter.

It seems that the proper noun 'Cinderella,' as the name of a conceptualized character, does not conform to the grammatical rules that govern common nouns like 'dziewczę.' This strengthens the claim about death that we make in the following part of the paper where we propose a distinction between *death* – a noun and *DEATH* – a concept.

We shall now move to the proper topic of our discussion: the grammatical gender of death and the impact of this grammatical category on the conceptualizations of death in English, German and Polish, as illustrated by the agreement patterns used or approved by translators and speakers.

5.6 The Grammatical Gender of Death

In Polish, the word for death – *śmierć* – is feminine. Generally, nouns that refer to non-human, inanimate objects or abstract ideas are assigned grammatical gender based on their morphological shape. Thus, the Slavic languages' equivalents of death are feminine because the endings of the respective nouns point to the feminine declension. In Polish, *śmierć*, like most nouns that end in *–ć*, *–ość* or *–dź* are feminine (e.g. *ćwierć* – 'a quarter', *perć* – 'a mountain path', '*miłość* – 'love', *złość* – 'anger', *przyjemność* – 'pleasure', *kość* – 'bone'); exceptions include forms such as *jegomość* (masculine, a somewhat outdated word for 'man' or 'chap'), but it has to be noted that the female equivalent *jejmość* is feminine.

Death, however, is a tricky noun: in its literal sense, it refers to a physiological phenomenon – the end of biological life (in the following sections we use italics to mark this understanding of the noun). Yet, at the same time, it is

also used to refer to the cultural image of *DEATH*, an often personified conceptualization whose image can be associated with either masculine or feminine features even though it does not have a physical existence (this understanding of the noun will be both italicized and capitalized). *Death* as the end of life may sometimes be pluralized (e.g. "the Mafia related deaths"); the metaphorical personification, on the other hand, usually has no plural form – it refers to an individualized, even though non-existent object.

In English, the word *death* has no inherent gender because English nouns are not marked for gender. There is, therefore, no reason for English verbs, adjectives and determiners to reflect gender in their agreement patterns. The only part of speech that indicates gender is the personal pronoun for the 3rd Person Singular which allows one to distinguish between the masculine *he*, the feminine *she* and the neuter *it*. The masculine and feminine pronouns are used to refer to nouns denoting – respectively – male or female human or supernatural beings and male or female animals, while the neuter pronoun is used to refer to small children and animals (where gender is not considered important, e.g. 'rat'), as well as all inanimate objects, abstractions, etc. Thus, *death* is usually referred to as *it*, but its visual representation is most often associated with male features and we would therefore expect the pronoun *he*.

In German, all nouns have inherent gender: masculine, feminine or neuter. The noun *Tod* ('death') is masculine. It is accompanied by masculine articles (*der* or *ein*) and adjectives, and would be referred to by the masculine pronoun *er*. The German verb does not show agreement in gender.

5.7 The Personification of *DEATH* in Different Cultures

A detailed description of the personifications of *DEATH* in various cultures is beyond the scope of this paper (for a comprehensive discussion cf.

Guthke 1999); however, we would like to outline the main ideas about the personification of *DEATH* in the cultures that are the focus of our analysis: German, Polish and English.

In German-speaking countries, as illustrated in the 17th century folksong *Es ist ein Schnitter, der heißt Tod* ("This is a reaper, his name is Death", published in the collection *Des Knaben Wunderhorn*), *DEATH* is very often imagined as *der Senseman*, the (Grim) Reaper (Guthke, 1999: 7-10). The noun *death* being masculine, *DEATH* is naturally represented as a skeletal male figure, with a skull instead of a face, dressed usually in a black hooded cloak. Since the Middle Ages, this rather fearsome character appears in many visual representations, often carrying a scythe. Interestingly, the same personification prevails in the English-speaking environment also, despite the fact that the noun *death* is not marked for gender in English.

An interesting exception is Death in the comic book series *The Sandman* by English author Neil Gaiman, published from 1989 to 1996. Here Death is depicted as a young and pretty girl, with a very pale face and black hair. She is both the representation of the end of life and a psychopomp, i.e. the guide that takes the dead to the other world. This feminine representation of death is anomalous in Western (English-speaking) culture but the popularity of *The Sandman* series may become a factor in opening the metaphorical door to a new conceptualization. We were curious as to whether the Gaiman family's Eastern European roots may have had something to do with his feminine conceptualization of death but he maintains the reason was just to break the cultural stereotype (personal communication, March 2011).

In Slavic mythology, *DEATH* (Polish *śmierć*, Russian *смерть*, Czech *smrt*, Serbian *смрт* – all of feminine gender) is associated with the goddess Morena (also known as Mora, Mara, Morana, etc.) Some of the best known visual representations of *DEATH* have been created by Jacek Malczewski, a Polish

painter of the early 20th century. In his pictures, even Thanathos, the male Greek god of gentle death, is represented as a young woman.

5.8 The Gender of Personified *DEATH*

Only in some cultures can *DEATH* be represented as, or appear in the shape of, an animal. For example, some inhabitants of Polynesia think of *DEATH* as Fe'e, a giant cuttlefish that spends its time in the ocean but is able to leave the waters and grab its victims with its black tentacles. In most cultures though, if death is given a physical shape, the image is human. Therefore, this image should have natural gender and, in languages that employ this category, the noun *death* should also have grammatical gender.

As Jakobson (1959) states, "even such a category as grammatical gender, often cited as merely formal, plays a great role in the methodological attitudes of a speech community" (p. 142). As he goes on to illustrate, the personification of the weekdays shows that for the speakers of Russian the images of the days are consistently assigned the gender that complies with the grammatical gender of the corresponding noun. Taking this hypothesis into consideration, how would the grammatical gender of the word *death* affect its cultural conceptualization?

One could claim that, similarly to the weekdays and their personification, there should be a one-to-one correspondence between the gender of the personification of *DEATH* and the grammatical gender of the noun 'death' in a given language. However, as highlighted in the study by Guthke (1999), there are many examples where the representation does not agree with the grammatical gender. For example, the German painter Klaus Drechler represents *DEATH* as a woman (*Tod mit Kind* – 'Death with a child', 1991) even though, as mentioned before, *death* is masculine in German. Another example is the picture by the Italian painter Stefano Della Bella who portrays *DEATH* as an armed horseman

(the first picture of *Les cinq morts series*) despite the fact that *death* in Italian is feminine.

The grammatical gender may have been originally assigned based on morphology but, once assigned, it became part of the cultural conceptualization. This hypothesis was investigated by Segel and Boroditsky (2010) who attempted to answer the question of whether the grammatical gender of nouns in an artist's native language always agrees with the gender of the personifications depicted in their art. In order to answer their research question, they analyzed almost two thousand paintings, and according to their results, grammatical gender predicted personified gender in 78% of cases. This may seem a lot but, on the other hand, one may ask from where the remaining 22 % took their cue.

On the basis of the results of the above mentioned study, it may be assumed that it is not always the grammatical gender of the word that determines the gender of the personification of *DEATH*. What, then, can the other factors be to explain this situation? One hypothesis is that "death will be seen as masculine or feminine according to whether it typically occurs in a phallic-penetrating or vaginal-enveloping form" (Guthke 1999: 20). Thus hunting and martial societies will likely associate *DEATH* with physical violence, strength, power, and masculinity, while in agricultural societies death will most likely be caused by starvation or disease and is therefore associated with the lack of maternal care – hence a feminine representation.

5.9 *DEATH* in Translation

In this section, we discuss the differences in the conceptualization of *DEATH* from the point of view of translation, using two literary texts as the object of analysis: "The Tale of Three Brothers" from *Harry Potter and the Deathly Hollows* by J.K. Rowling and *The Reaper Man* by Terry Pratchett. The common

element in both of these texts is *DEATH* as a character; however, the two personifications differ considerably.

In "The Tale of Three Brothers" we read:

> 7. But Death was cunning. He pretended to congratulate the three brothers upon their magic, and said that each had earned a prize for having been clever enough to evade him.

What should a translator do when rendering the text into a language – for example Polish – in which the word *death* and its personification are not masculine? The analysis of the context in the book gives a partial answer, however, the translator has to see the text in a wider network and, in the case of this bestseller, also think of the film adaptation of *Harry Potter and the Deathly Hollows*. In both the film and the book, the actual gender of *DEATH* is not relevant. In the text, none of *DEATH's* apparent masculinity plays any role, while in the film *DEATH* is portrayed in a genderless manner. Thus the noun *death* in this particular case refers to a universal concept and the decision to change the gender of the noun *death* in order to make it fit the target language gender agreement seems to be completely justifiable. The target text, translated by Piotr Cholewa, in Polish reads:

> 8. Nie dała (*feminine verb*) jednak za wygraną. Postanowiła (*feminine verb*) udawać, że podziwia czarodziejskie uzdolnienia trzech braci, i oznajmiła (*feminine verb*) im, że każdemu należy się nagroda za przechytrzenie Śmierci (*feminine noun but not grammatical agreement controller*).

Interestingly, the same technique was applied by the translator into French – Jean-François Ménard who uses the feminine form *la mort*.

The same fragment translated into German by Klaus Fritz reads:

> 9. Doch der Tod (*masculine*) war gerissen. Er (*masculine*) tat, als würde er (*masculine*) den drei Brüdern zu ihrer Zauberkunst gratulieren, und sagte, weil sie so klug gewesen seien, ihm (*masculine*) zu entrinnen, verdiene jeder von ihnen einen Lohn.

As illustrated, in all target texts, the translators used the native concepts from the target cultures and, where necessary, substituted the source text male representation of *DEATH* with the corresponding target culture conceptualizations: thus, in Polish and French *DEATH* is feminine and in German masculine. All translations sound natural, native-like, and the meaning of the passage has been preserved.

On the other hand, in Terry Pratchett's *Discworld* series, the character Death poses a significant translation challenge. Death is male; even the name he chooses for himself confirms his physical gender – Bill Door. Contrary to what was found in the Harry Potter series, in the case of Pratchett's books, the masculinity of the character cannot be ignored. The translators of the text into Polish and French had to struggle with the choice of what to do with sentences like the one below:

> 10. Death put down the timer, and then picked it up again. The sands of time were already pouring through. He turned it over experimentally, just in case. The sand went on pouring, only now it was going upwards. He hadn't really expected anything else.

The question arises of whether, in the Polish translation, the translator should follow morphological or semantic agreement. If the translator decides to follow morphological agreement, then *DEATH* would have to be referred to as "she" which would be in contradiction to the plot of the book. On the other hand, if semantic agreement is chosen, the result would be a morphological mismatch

between the feminine gender of the subject noun and the masculine gender of the verb: *Śmierć odstawił…* ('Death (feminine) put down (masculine)... '). In this case, the masculine form of the verb would be motivated by semantic or referential cues, which, according to Corbett (1991: 43) may override the morphological motivation in some contexts. In addition, this mismatched form does not sound natural in Polish since it also disagrees with the conceptualization of *DEATH* in the Polish culture. The last possible approach to this problematic fragment would involve preserving the masculinity of Bill Door and using an equivalent of the noun *death* that is masculine in gender (e.g. *zgon* in Polish). This seems to be an appropriate way out of the dilemma since the gender of the character would be preserved and the text would read well. Semantically though, the two nouns are not really equivalent as *zgon* refers to the physiological aspect of *death* and does not function as a cultural concept. The decision that was actually made by Piotr Cholewa, the translator of *Reaper Man i*nto Polish, was to use the word *śmierć* with an incorrect gender agreement. It preserves the characteristics of Bill Door but the text sounds foreign and could be considered grammatically acceptable only if *Śmierć* would be the surname of the character. In the plot of these books, however, it is not the surname, but the profession. The translation reads:

> 11. Śmierć (*feminine noun*) odstawił (*masculine verb*) klepsydrę, ale po chwili wziął (*masculine verb*) ją znowu. Piasek czasu się przesypywał. Śmierć (*feminine noun*) na próbę odwrócił (*masculine verb*) życiomierz - dla sprawdzenia. Piasek sypał się dalej, tyle że teraz z dołu do góry. Śmierć (*feminine noun*) właściwie nie oczekiwał (*masculine verb*) niczego innego.

In the French translation, the translator, again, resorted to the same strategy by using the noun *Mort* and the feminine determiner *la*, but this feminine

noun is later in the text referred to using the masculine pronoun "il." The French verb does not show gender. The fragment in French reads:

> 12. La Mort reponse le sablier, puis le reprend. (...) Il le retourne pour voir, au cas ou...
> *Death put down the timer, and then picked it up again (...) He turned it over experimentally, just in case*.

In German, on the other hand, the translation decision was to use the equivalent of the noun *death* - *Tod*, but without the determiner (except when it is needed to express cases other than the Nominative). This way, *Tod* sounds like a surname and the reader immediately realizes that the reference is to the personification rather than the physiological process. Since the German noun *Tod* is masculine, the translator could use the masculine pronoun "er" without making the target text sound unnatural. In German, neither the verb nor the predicative adjectives mark agreement. The translated fragment reads:

> 13. Tod (*masculine noun*) stellte die Lebensuhr beiseite – und nahm sie erneut zur Hand. Der Sand der Zeit rieselte von der oberen Hälfte in die untere. Er (*masculine personal pronoun*) drehte das Gefäß, um ganz sicher zu sein. Der Sand rieselte auch weiterhin, jetzt von unten nach oben. Tod (*masculine noun*) hatte es nicht anders erwartet.

The decision of how to resolve the problem of gender assignment in the translated texts in the different languages could be evaluated by analyzing the reaction of the audience. In the case of the Reaper Man in Polish, the question would be whether "Śmierć nie oczekiwał niczego innego" is acceptable for the readers.

5.10 Empirical Study

This question was asked in a small study by Drzazga, Stroińska and Sullivan (2011). Three groups of respondents were asked to judge the acceptability of selected sentences from Pratchett's *Discworld* translated into Polish. The most relevant group for this study – the group of Polish native speakers living in Poland and having limited or no exposure to English - rejected the sentence in which the noun *śmierć* was used with incorrect grammatical gender agreement. However, those respondents who recognized the translation hurdle and took into the consideration the fact that the sentences were taken from a bigger context, said that they could accept the sentence if *Śmierć* was the name of a character.

Native speakers of Polish who have been living in Canada for a considerable length of time and young adults who were bilingual generally accepted the lack of agreement as soon as they realized that the sentences refer to *DEATH* as a personification. However, it was also the group of young adults who were quite adamant about rejecting (disliking) any sentences involving the personified concept of *DEATH*. That is why, in their opinion, the sentence "Śmierć chwyta za kubek szkieletową dłonią," ('Death catches the mug with a skeleton hand'), was also judged as unacceptable, despite the fact that the agreement between the subject and the noun was correct.

Thus it seems that the choice of the German translator was the most appropriate. In order to avoid problems with gender agreement (though not important in German where *Tod* is masculine), *Death* should be treated as a proper name, not a common noun. In this way, the translator ensures that the sentences will sound natural, even if taken out of context. On the other hand, using semantic motivation for gender agreement, as in the case of Polish and

French may be accepted by the audience, but only in the context of a book of fiction.

Corbett (1991: 183ff) also discusses the concept of hybrid nouns that may change their agreement properties depending on the natural gender of the referent. He quotes the Russian noun *врач* (*vraʧ* - 'physician') that can follow feminine or masculine agreement patterns depending on the gender of the person it refers to. It seems that the imagined gender of a symbolic representation of a non-existent figure (*DEATH*) can also trigger a switch to a gender agreement inconsistent with the inherent gender of the noun.

5.11 Conclusion

The two interpretations of the word 'death' – the physiological (*death*) and the metaphorical one (*DEATH*) – are related to different grammatical properties. In the case of death it seems that, at the level of linguistic analysis, the grammatical agreement of the noun has to comply with the rules imposed by the formal aspects of language - its morphology. In Polish, this means feminine agreement across all syntactic structures. However, on the textual level, as illustrated by the translation of "The Tale of the Three Brothers" from *Harry Potter and the Deathly Hollows* and *Reaper Man*, the imagined gender of the personification of *DEATH*, i.e. semantic motivation, may be used to establish non-standard gender agreement. Despite the fact that the sentence, if taken out of its literary context, will likely be considered unacceptable by the audience, the context seems to justify the incorrect agreement.

The word *death* and its grammatical agreement properties in Polish and German seem to follow Corbett's (1979, 1991, 2006) Agreement Hierarchy and Predicate Hierarchy. Thus, *DEATH* (grammatically feminine) represented as a male figure, may combine in Polish with a masculine verb. As soon as the

reader/listener realizes that the word ‘death’ is used in a metaphorical sense, i.e. as a personification, masculine agreement becomes acceptable, just as is the case with names that may have grammatical gender inconsistent with the natural gender of the person. As such, ‘śmierć’ may be considered a *hybrid* noun that is capable of changing its agreement properties in specific contexts.

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CHAPTER 6

6 WHAT CAN COGNITIVE TRANSLATION TELL US ABOUT THE RELATIONSHIP BETWEEN LANGUAGE AND THOUGHT?

6.1 Preface

The following chapter constitutes the theoretical foundation for what is meant in this thesis by the "cognitive approach to translation." The article was motivated by the perceived lack of a well-defined and described cognitive translation research paradigm in the literature. The article makes references to both classic translation theories, and some new proposals. The main goal of this paper was to provide theoretical background for further investigation in the area of cognitive translation theory. The emphasis is placed on the need to apply empirical research methods that would allow one to investigate the process, not just the product of translation.

This chapter does not introduce any original investigations by the author but rather it includes examples of translation problems that may be approached using the cognitive approach defined in the article. What is more, it constituted a starting point for the investigations of the translation process included in Chapters 7A and 7B.

The article that constitutes the content of this chapter was submitted to *LACUS Forum* 37 in 2010. It was accepted for publication and is currently in print. The formatting of the paper, including section numbers was adjusted to fit the style of this thesis. The reference style and the bibliography that is presented at the end of this chapter were left in their original format that adheres to the publishing requirements of the *LACUS Forum*.

What can cognitive translation tell us about the relationship between language and thought?

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6.2 Abstract

New cognitive models of translation are the result of the departure from the treatment of translation studies as mere comparisons of target and source texts. However, there is no consensus in the literature on what the cognitive approach to translation is. There are at least three understandings of this term: approaches that are based on cognitive linguistics, ones that use new research methods to investigate the translation process, and ones that use a psycholinguistic perspective. It is proposed that combining all these approaches into one interdisciplinary methodology may be the most appropriate (if not the only) instrument to investigate how meaning is created and then verbalized in the process of translation. The application of this approach is illustrated with translation problems based on differences between English and Polish.

Keywords: translation, translation problems, translation models, cognitive linguistics, gender, Polish, English.
Languages: English, Polish.

6.3 Introduction

Despite the extensive literature and research on translation or translation theory, not much is really known about what happens in the translator's mind. The cognitive approaches to translation, however, appear to concentrate on the process, not the product. It appears that applying a cognitive approach is crucial to

the answers of some basic, but at the same time, most important, questions about translation.

The present article aims at defining the cognitive approach to translation as well as presenting its potential applications. In the first section, the traditional approach to translation is briefly described. Next, different understandings of the word *cognitive* as used in reference to translation are presented. Elements of existing approaches are incorporated into a new interdisciplinary approach. In the last part of the paper possible experiments applying this approach are presented.

6.3.1 The traditional approach to translation.[2]

In order to discuss translation from a cognitive point of view, we first need to discuss translation in its traditional understanding. The oversimplified summary of traditional translation theory is that translation involves producing a target text (henceforth TT) on the basis of a source text (henceforth ST). When one reads what is considered a classic translation theory, it becomes clear that often the whole approach was constructed around one particular type of text (e.g. poetry) or even one text (e.g. the Bible).

The key word in these theories is equivalence. The debates, since at least Cicero's time, seem to revolve around the dilemma of literal versus faithful or free rendition. Even if the purpose (*skopos*) of translation was taken into consideration (cf. Vermeer's *skopos* theory, which says that the strategies used to produce the Target Text are determined not by the Source Text, but by the aim of translation) or the relevance of translation was the center of attention (cf. Gutt

[2] What is meant by translation here is any act of rendering ST from one language into another (whether oral or written). Despite the claim that oral and written translation may involve different cognitive processes (De Groot 1997, 2000), I will not distinguish between (oral) interpreting and (written) translation in this general discussion.

2000), everything concentrated on the comparison of two texts or their functions in two languages and cultures (cf. House 2001).

The existing theories offer a number of ways of dealing with problematic items, usually words or (idiomatic) phrases. What is common to all these approaches is that they investigate the products, not the process of translation. As for the role of the translator, he or she is supposed to find the perfect (whatever this perfect meant) equivalent for the source text item. It means that he or she "understands the work in its complexity and [that he or she] approves of all the emotional and philosophical content included in a text" (Krzeczkowski 1975:143). As Shortliffe (1969:23) claimed, "the ideal translator would need to be not only cultural historian, literary critic, philologist, phonetician, semanticist, structural linguist, but also sociologist, anthropologist, psychologist and psychoanalyst." As mentioned before, the function of the TT was investigated while what happened during the task of translation was not considered in the theories.

Obviously, it would be an exaggeration to say that theoreticians completely ignored the process of translation. Even in the early approaches one may find a direct reference to what happens during the production of the TT. To give just one classic example, Levy (1969) sees translation as a process composed of consecutive moves. He even uses decision trees to illustrate the process of translation as a sequence of different moves and choices.

Moreover, traditional theoreticians, being translators themselves, acknowledged that translation was not a simple input-output procedure and that it required decision-making. However, what was the center of attention in the translation studies literature was the text that was produced and its relation to the meaning, form or function of the original, not the process per se.

6.3.2 Cognitive approaches to translation.

As mentioned above, a cognitive approach to translation promises to offer more insights into the process or processes involved in the rendition of the ST. However, there is no consensus in the literature on what the cognitive approach to translation implies. In Baker & Saldanha (2009:242), the term cognitive approach is used as synonymous with the psycholinguistic approach. It concentrates on cognitive processes that take place during translation with the assumption that the "translation process … inevitably replicates all the characteristics of a general model of human communication" (ibid. 244). A closer search of the literature reveals at least two more interpretations apart from the psycholinguistic one. In some sources, cognitive translation constitutes a combination of translation theory and cognitive linguistics (e.g. Tabakowska 1993). Cognitive linguistics redefines what meaning is and this allows one to redefine the notion of equivalency. In the cognitive translation type of approach, cognitive processes taking place during translation are investigated using new research methods (e.g. EEG or eye-trackers), traditionally associated with other scientific disciplines, such as neurolinguistics or psychology. Not only is this a new application for already known research methods, but also there are new techniques that are designed especially to investigate the translation process. In order to understand the process of written translation, screen-loggers and key-loggers are used to keep a record of the sequence of moves the translator makes in the process of rendering the ST. Key-trackers make it possible to analyse exactly how the TT was produced, while a screen-logger shows what translation aids (such as on-line dictionaries or the Internet) were used and when by storing a series of screenshots. All things considered, it has to be mentioned that the three cognitive approaches described above are not entirely separate or mutually exclusive. However, each brings

something new or offers a slightly different perspective on the process of ST rendition.

In the rest of section 2 of the paper,[3] these three approaches are briefly summarized to give a better picture of how they differ. Moreover, at the end of each section the usefulness of each approach in the understanding of the translation process is discussed.

6.3.3 The cognitive perspective.

The first approach treats the cognitive and psycholinguistic views as synonymous. As mentioned above, this approach assumes that a model of translation should be based on the current knowledge about human language processing and it should take "monolingual communication as a starting point while recognizing that translation and interpreting are special instances of bilingual communication" (Baker & Saldanha 2009: 242).

The translation process was investigated from this point of view by, among others, DeGroot (1997). This investigation resulted in the construction of a model of translation that recognized two interpreting strategies used in analysing the rendition of a text: the first was meaning based, and the second was described as transcoding. Alternatively, they are referred to as vertical and horizontal translation, respectively (DeGroot 1997, 2000).

In the meaning based (vertical) translation, the translator has to fully understand the ST in order to render it. The search for equivalents occurs at the level of conceptualizations, not words. On the other hand, in transcoding (also known as word-based or the word-for-word technique), "the interpreter supposedly translates the smallest possible meaningful units of the source language that have an equivalent in the target language" (Christoffels & DeGroot

[3] Section 2 of the article corresponds to section 6.4 of the thesis.

2005:459). This model includes also the proposal made by Paradis (1994), who suggests that translation takes place at different linguistic levels (phonology, morphology, syntax and semantics) and that units from these separate levels may be translated independently. Contrary to the vertical translation technique, this strategy does not assume full comprehension of the ST.

These two processes – horizontal and vertical translation – are not mutually exclusive, and they often take place at the same time. This may, in fact, be the biggest criticism of this approach. On the one hand, the model tries to help us understand and isolate the sub-processes involved in the translation process. On the other hand, it seems impossible to distinguish between the two techniques in practice and it is difficult to investigate applications and possible advantages of each strategy. Because of these issues, the usefulness of this approach in the understanding of the translation process is limited.

To conclude, the basic assumption that translation constitutes a bilingual task of a bilingual brain is a good starting point in gaining understanding of what happens during translation. It would seem to be common sense that all translation research should be based on what is already known about the operation of a bilingual brain. However, applying this approach exclusively seems to be insufficient, as it concentrates on the insights offered by psycholinguistics while ignoring the knowledge about equivalency offered by translation studies.

6.3.4 Cognitive linguistics and translation theory.

The second understanding of the concept of cognitive translation is based on the principles of cognitive linguistics (henceforth CL).

Langacker's (2008) division of semantics into two types – the dictionary view of linguistic semantics and the encyclopaedic view – is useful for re-defining the notion of equivalency. In the dictionary view, meaning can be represented as a

small box in the circle representing the total knowledge about a particular item. In encyclopaedic semantics, the circle of knowledge is full of overlapping circles and "in this approach, a lexical meaning resides in a particular way of accessing an open-ended body of knowledge pertaining to a certain type of entity" (Langacker 2008:39). The more central the circle, the more prototypical a specification it represents.

Equivalency, in the CL approach to translation, implies that two conceptualizations in two different languages are comparable. CL "rejects the existence of a clear demarcation line dividing semantics from pragmatics" (Tabakowska 1993:15). Moreover, the text is no longer seen as being related to some given "system," but rather it is seen in the context of other texts. It is not the dictionary, but encyclopaedic semantics that is useful in the process of translation. Equivalents found by the translator are said to be based on experience and conceptualization, not just on dictionary meanings. Finally, the search for equivalents involves a comparison of the linguistic resources of the TT and ST. What is also important in this approach is that every translation is recognized as a complex process in which the presence of the translator is overtly acknowledged.

This approach constitutes a slight shift from the traditional approach to translation, mainly in the understanding of the concept of equivalency. However, by applying the CL-based theory one still ends up with a comparison of two texts and an analysis of the linguistic resources available in both the SL and TL. As aptly observed by Tabakowska (1993:20), CL "offers a theoretical framework for a more adequate definition of translation equivalence, and thus makes it possible to formulate some normative principles for translation assessment." It also allows us to "distinguish between untranslatability and mistranslation" (Tabakowska 2000:95), but, in the end, it does not add anything substantially new to the understanding of the translation process.

6.4 The Experimental Research Perspective

This understanding of the cognitive approach to translation is focused on the investigation of the process of translation with the help of new technologies such as eye-trackers, keyboard logging, or EEG. Before these new research techniques became available, the only way of investigating the process of translation was think-aloud protocols (TAPs), and these methods have proven to be faulty. The development of new research possibilities allows one to look at the process more closely and in ways that were not possible before. However, the literature is still limited (cf. Shreve & Angelone 2010), because translation was usually studied as a means of gaining an understanding of bilingualism and, so far, the translation process itself has not been the centre of attention. This approach seems to offer the best tools to gain insights into what happens in the brain of a bilingual person during the process of translation.

6.4.1 A combination cognitive approach to translation.

It seems that none of these three approaches by itself can answer basic questions about the translation process. Nevertheless, I believe that by combining these approaches we could gain some real cognitive insights. In section 3,[4] I present a number of potential translation problems and suggest some possible applications of the combined cognitive approach to translation through experiments that will show how these questions can be addressed.

[4] Section 3 of the article corresponds to section 6.5 of the thesis.

6.5 Application of the Combination Cognitive Approach to Translation

6.5.1 Gender.

A very interesting question of equivalency is posed by the problem of gender differences between languages. Let us consider the concept of *death* (cf. Stroińska 2007). From the point of view of the traditional approach to translation, the concept is not particularly problematic. It is among the most basic and universally recognized concepts and all of the languages under consideration have a dictionary equivalent of the word. However, if we put this concept in context, the rendition becomes more complicated.

In Terry Pratchett's *Reaper Man*, the protagonist is Death. At the beginning of the story:

> "Death put down the timer, and then picked it up again. The sands of time were already pouring through. He turned it over experimentally, just in case. The sand went on pouring, only now it was going upwards. He hadn't really expected anything else."(Pratchett 1991:10)

The problem arises when Death, who has chosen the name Bill Door, has to be referred to as feminine in Polish or Russian. In the existing translations of Pratchett's novel, translators decided to use a masculine verb following the semantic rather than the morphological agreement pattern. This means that a male referent of a morphologically feminine noun triggers a masculine verb form:

> Śmierć odstawił … ('$\text{Death}_{\text{FEM}}$ $\text{put down}_{[\text{MASC}]}$'),
> Śmierć nie oczekiwał … ('$\text{Death}_{\text{FEM}}$ $\text{did not expect}_{[\text{MASC}]}$').

In the published Polish translations of *Reaper Man*, the meaning of the original seems to be preserved; what is lost is the natural flow of the text. *Śmierć*

sounds like a proper noun here, not a common noun. One way to deal with the gender problem would be to use a related concept from the network of conceptualizations – e.g. *Szkielet* 'skeleton' or even *Kosiarz* 'reaper man', capitalized in order to signal that they function here as the character's name. It would be in agreement with the plot of the book and it would read well. However, the meaning of the name and the cultural associations it triggers would have been narrowed down.

When one thinks about the CL approach to translation, the tools that are proposed there may help to gain some understanding of the translator's decision. First of all, the resources in both SL and TL may be compared. This analysis shows that both Polish and English have at their disposal three grammatical genders (feminine, masculine and neuter). In Polish, gender agreement is represented by different suffixes added to nouns, adjectives, pronouns, and some verb forms, while in English only pronouns are marked for gender, normally reflecting the biological gender of their referents. From this point of view, translation should be easy as both languages have the instruments needed. Secondly, conceptualization as a way of finding equivalents and putting the problematic concept into the network may be useful when the translator considers the alternatives. Finally, in light of the CL alternative, translations may be assessed.

In addition, the experimental method could offer further insights into the process of translation. How does the brain react to the difference in gender? Are sentences (1), (2) and (3) processed differently in English?

(1) Death put down the timer. He turned it over experimentally, just in case.
(2) Death put down the timer. She turned it over experimentally, just in case.
(3) Death put down the timer. It turned it over experimentally, just in case.

An eye-tracker may be used to gain understanding in how the reading process of the source text occurs. What are the tokens that the translator spends more time staring at? Is (2) more problematic for the translator than (1)? Taking into account gaze behavior, does the translator spend relatively more time on the gender-problematic item? What translation decisions do translators make? Do they decide to translate *death* as *śmierć* and then use an incorrect gender agreement?

It has to be noted that two of the English examples, (1) and (3), seem to be considered correct by English native speakers. Sentence (2) sounds odd in English, as death is not conceptualized as a woman, but it is still grammatically acceptable. The next step would be to ask how native speakers react to the Polish translations of sentences (1)-(3). Consider sentences (4)-(6):

(4) Śmierć odłożył klepsydrę. Odwrócił ją na próbę, na wszelki wypadek.
(5) Śmierć odłożyła klepsydrę. Odwróciła ją na próbę, na wszelki wypadek.
(6) Śmierć odłożyło klepsydrę. Odwróciło ją na próbę, na wszelki wypadek.

Based on gender agreement, both sentences (4) and (6) should be treated as unacceptable because the feminine noun *śmierć* must be followed by a feminine marking on the verb in the past tense. But is this confirmed by the reaction of the brain? It may be assumed that (6) will be rejected because death is here conceptualized as a person performing actions that only human beings are capable of doing and neuter gender does not agree with this mental image. An EEG may show how the Polish native speaker unconsciously reacts to these sentences and what is considered a violation.

As presented above, a combination approach to translation could answer some crucial questions about how the translation process occurs when it comes to differences in gender and conceptualizations in two languages. Eye-trackers may be found especially useful in determining tokens in the text that are problematic, thus offering particularly valuable insights to how the text is being processed. When written translation is investigated, key-logging and screen logging may show how the TT is being produced. These findings may be complemented with an EEG study that will show how strongly the concepts are conceptualized in a gender specific form. EEG may also help to assess the correctness of the translator's decisions as assessed by native speakers of the language.

6.5.2 Articles.

Another problem that is based on differences in linguistic resources available in languages is that of articles. The English-Polish translation of articles was analysed by Tabakowska (1993) using the CL approach. Using the example of Tolkien's poem *The Mewlips*, Tabakowska shows that the shift of perspectives achieved by the use of appropriate articles cannot be fully rendered in Polish, as it is a language that has no articles. Thus article translation "presents an instance of genuine linguistic untranslatability" (Tabakowska 1993:82). Some languages that lack articles, e.g., Russian or Turkish, have other ways to express the (in)definiteness of a concept,[5] however, what is important for this discussion is the fact that Polish lacks a lexeme to provide an easy distinction between indefiniteness and definiteness. It may be assumed that professional translators, due to time constraints, usually do not spend much time on one sentence, and

[5]I would like to express my thanks to the anonymous reviewer of my paper for pointing this out and for many other valuable comments.

consequently, it may seem that they ignore the subtleties of meaning with respect to the articles.

By applying the combination cognitive approach to translation, it would be possible to investigate whether articles really constitute a translation obstacle that is recognized right away by the translator. Eye-tracking methods in particular may show the differences in the processing of sentences when they are arranged into minimal pairs similar to (7) and (8).

(7) John is Elvis in this film.
(8) John is an Elvis in this film.

It may be expected that the translator will spend more time on the article in (8).

Do translators see that there is a difference in meaning, with (7) saying that John is portraying "Elvis" in the film and (8) pointing out that John is portraying one of the Elvis impersonators in the film? Do they spend more time on (8) in general? Would there be a difference depending on whether the sentences were translated into a language with articles (e.g. German) or one with no articles (e.g. Polish)? In addition to eye-trackers, the use of key-loggers and screen-loggers would make it possible to analyse the process of producing the written translation.

6.6 What Can the Cognitive Approach Tell Us About the Relationship between Language and Thought?

As shown above, none of the existing approaches to translation is very useful in understanding translation as a process. The proposed combination cognitive approach to translation can help us to understand how the bilingual brain works when performing a particular translation task. First of all, psycholinguistics may contribute important insights, since translation really is a

bilingual task. Secondly, experimental methods allow us to determine what constitutes a problematic item in translation and how the text is processed. Finally, the cognitive linguistic understanding of equivalence makes the assessment of translation decisions more accurate. It is undeniable that more research is needed to provide an in-depth understanding of the translation process. However, as shown here, the interdisciplinary cognitive approach offers the best tools to conduct appropriate experiments and analyses leading to a more in-depth understanding.

Furthermore, this approach has other side benefits: a better understanding of the process of translation should help to improve translation training. It is crucial to define the problems in the process of translation. Moreover, if the results show that solving the problem once results in the creation of a pattern, drilling practices may be devised and will inevitably prove beneficial in the training programs. Additionally, once the cognitive aspects of the work of the human translator are better understood, the algorithms for machine translation may also be improved. Finally, the proposed research on the activities of a bilingual brain may be useful not only in the investigation of the translation process, but it may also offer insights into some properties of the architecture of natural languages. The method may be used to study how different language systems work in the minds of the speakers and how various subsystems of language, e.g. morphology and syntax, work together in order to disambiguate linguistic problems.

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CHAPTER 7A

7A THE TRANSLATION PROCESS AND GRAMMATICAL GENDER: AN EXPERIMENTAL APPROACH

7A.1 Preface

Ideas for empirical research born out of the investigations presented in Chapters 4, 5 and 6 constituted the basis of the experiment on translation process and grammatical gender presented in this chapter. Observations presented in Chapter 6 formed the methodological starting point for the investigation, while findings of the studies about problems in translation between languages that have different gender assignment systems, described in Chapters 4 and 5, motivated the choice of the stimuli. The study in this chapter follows from the previous chapters but there is no significant overlap. However, since the methodology part of this thesis – Chapter 3 – includes an in-depth description of the study design and the motivation for the choice of the research methods, the summary of the methodology is partly repeated here. Moreover, the descriptions of grammatical gender systems in German and English provided in Chapter 2 will be summarized here.

The first author of the article, Dr. Magda Stroińska, was responsible for choosing and preparing the stimuli for the study, as well as formulating research questions and hypotheses. Under her supervision, I was responsible for the design of the experiment using Translog – the keylogger that was designed for the investigation of the translation process, the running of the study, the data analysis and the writing of the article.

The paper was submitted on September 25, 2012 to *LACUS Forum* 39 and it is in revision. The formatting of paragraphs and numbering of tables were

modified to follow the layout of the thesis, whereas the text of the article and the bibliography remain in their original format.

Translation process and grammatical gender: An experimental approach

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Submitted to *LACUS* Forum 39.

7A.2 Abstract

The process of interlingual translation entails the simultaneous activation of two, sometimes incompatible, systems of conceptualizations – strategies to account for non-linguistic phenomena with language means (cf. Drzazga in print). The translation process becomes particularly complex if the target language (TL) lacks some of the linguistic means that the source language (SL) uses to create the meaning for a given concept. Our paper focuses on the category of grammatical gender as a means to reflect differences in conceptualization between languages. Using translation from German into English, we analyze the question of how differences in conceptualization (grammatical categorization) in two linguistic systems affect the fluency of translation. In particular, we try to discover whether translators work above the word level, that is, at the conceptualization level. If one conceptualization system prevails, which one is chosen – the native language of the translator or the foreign language? In order to answer these questions, we use Translog computer software and retrospective Think Aloud Protocols (TAPs) in investigating the translation process.

Keywords: grammatical gender, translation, translation problems, translation process, Think Aloud Protocols.
Languages: English, German.

7A.3 Introduction

In order for translation to take place, two linguistic and conceptual systems have to be simultaneously active. The role of the translator is to find in the target language an equivalent of the source language concept (cf.,

Tabakowska 1993, 2000). It may seem as straightforward as looking up a word in a dictionary. However, translation cannot be simplified to a straightforward input – output procedure since the meaning of a word consists of many elements. Moreover, languages differ in the way they express this meaning. Our research was motivated by the observation that even some common cultural concepts may turn out to be problematic due to the differences between languages (cf., Stroińska 2007, Drzazga, Stroińska & Sullivan forthcoming).

Our main research question was: how do differences in linguistic categorization affect the fluency of the process of translation? Moreover, we wanted to see if novice translators are able to work above the word level that is at the level of conceptualization. We also wanted to observe which conceptualization system was chosen – German (the source language, but the second language of our participants) or English (the target language and the native language of our participants).

To address these questions we chose to investigate the category of grammatical gender in English and German in the process of translation. Specifically, we looked at the problems posed by the fact that German assigns grammatical gender to inanimate objects (cf. Konishi 1993) and English speakers often stumble when they encounter pronouns such as “she” or “he” being used to refer to things (cf. Rogers 1987).

We hypothesized that, due to their limited knowledge of German, as well as the lack of translation experience, our participants would find the differences in grammatical gender systems in translation problematic. This, in turn, we believed, would find a reflection in the translation decision making process. We also anticipated that the participants would be aware of these differences and, that therefore, they would be likely to mention them in Think Aloud Protocols. At the same time, we also expected that the product of translation would not include

mistakes related to grammatical gender as these would be easily avoided mainly due to the familiarity of the participants with the content of the source text.

7A.4 Methodology

Since it was the process, not the product of translation that was our main focus, we could not rely on the traditional research method used in translation research: the comparison of the target text (the product of translation) to the source text. For this reason, we decided to use Translog software and retrospective Think Aloud Protocols (henceforth TAPs). The study was modeled on experimental research conducted by Hansen (2006).

Translog is software created "to be an automatic, subject-independent tool for collecting hard, supplementary process data to the softer data collected by means of introspection, retrospection and think-aloud" (Jakobsen 2006: 96). It is a key logger that records which keys were pressed on the computer keyboard. In addition, it also records the mouse clicks and the exact time when these actions took place. In this way Translog allows the researcher to have access to various stages of the production of the target text. It also helps to investigate the rhythm and the speed of target text production, by using the function that replays the typing process at an adjusted speed. Another advantage of using Translog is that the participants engage in the familiar activity of text editing, thus minimizing the anxiety the participants experience due to experimental manipulation.

The use of TAPs in translation research is based on the assumption that short-term memory is characterized by easy access, but its storage capacity is limited (Ericsson & Simons 1993). In the production of TAPs this short-term memory is accessed and it is assumed that the verbalization of the decisions being made does not influence the cognitive processes. However, the collection and the analysis of TAPs have raised many objections. First of all, there is no established

research paradigm for the use of TAPs. Furthermore, during the production of TAPs the participants tend to engage in interaction with the researcher. Finally, the production of TAPs seems to interfere with the experimental task of translation (cf. Bernadini 2002).

We decided to triangulate our data by collecting retrospective TAPs while Translog was replaying the translation production process. In this way, we minimized the possibility of interference from TAP production on the translation process itself. In total, we collected three sets of data: 1) a translation product – a finished target text; 2) a translation process as recorded by Translog; 3) retrospective TAPs. In the next part of the paper, we describe the design of the experiment. Results and conclusions will follow in subsequent sections.

7A.4.1 Participants.

Three undergraduate students, two male and one female, participated in the experiment. They were students in various Faculty of Humanities departments at McMaster University. English was their native language and all of them listed German as their second language, with French being the third one for all of them. They had all recently taken an upper level undergraduate German translation course. Their German proficiency was comparable since they would all have completed at least two years of German language instruction courses. The instructor of the translation course had included grammatical gender problems in the content of the translation course and the participants had been explicitly taught to pay attention to this aspect of language while translating.

7A.4.2 Stimuli.

The participants were asked to translate one text - an adapted (shortened) fragment of one of the fairy tales by the Brothers Grimm - *Snow White*. We had decided to use a source text familiar to the participants in order to give them the opportunity of using their knowledge of the story to solve some of the translation problems. We also hypothesized that they would make fewer mistakes and would use their native language grammatical gender system more frequently, because the fairy tale functions in their native culture as well.

The text was 506 words long and was presented as a whole. In this stimulus text, we identified 15 phrases in which the translation from German into English required the change of grammatical gender. Examples are found below.

(1)so antwortete *er* [der Spiegel] (‘so answered *he* [the mirror]’)
(2)*Es* war eine schöne Frau. (‘*it* was a beautiful woman’)
(3)Und weil *es* [Schneewittchen -Snow White] gar so schön war…
(‘and because *it* was so lovely’)

In example (1), the mirror is referred to as *er* (‘he’) in the source text, however, since mirror is inanimate, we expected the pronoun to be changed to *it* in the English translation. Example (2) illustrates the problematic construction in which *es* (‘it’) is the grammatical subject but has no reference (the so called *Platzhalter*, ‘place holder’, as the subject position must be occupied in German). In English, there is a parallel construction, *it was*, but because the predicate noun refers to a person, the pronoun, *it*, should take a gendered form corresponding to the natural gender of the referent. Thus, we expected to see the translation “she was a beautiful woman” instead of *“it was a beautiful woman.” The last example (3) includes a neuter pronoun referring to the girl –Snow White. In German, both the noun, *das Mädchen* (‘the girl’), and the actual name of the character,

Schneewittchen, are neuter and thus need to be referred to as *es* ('it') but in an English translation this *it* should be rendered as *she*.

7A.4.3 The case of "boar."[6]

The focus of our experiment was the type of phrases in which the fact that German assigns grammatical gender to inanimate objects or animals had to be ignored (example 1). However, there is a fragment in our text which does not require changing the pronoun: it is the sentence "Und als gerade ein junger Frischling dahergesprugen kam, stach er ihn ab" ('And since at precisely that moment a young boar came out, he stabbed it/him'). *Boar* in English is one of the few common nouns that are marked for gender and it is masculine. Nevertheless, both the participants and the native speakers that we questioned afterwards admitted that in this context, they would still use *it* instead of the masculine pronoun since *him* would mean that the animal was being personified. However, both *it* and *him* should be considered correct.

7A.5 The Procedure

In the first part of the experiment, participants translated the German text on a computer that was using Translog. Translog resembles basic word processing software, but the screen is divided into two parts: one for the presentation of the source text, the other for typing. Moreover, unlike popular word processors, it does not have a spellchecker. The Internet connection was disabled so the participants would not be able to use any on-line translation tools because accessing the on-line translation sites would have interfered with the key logging

[6]We would like to thank the audience attending our presentation at LACUS 39, especially Dr. Anna Moro, for pointing this out.

count for the translation process itself. However, they were allowed to use a hardcopy of a German-English dictionary which was provided to minimize the anxiety they might experience. Following the setting up of the experiment, the participants were left alone in the room.

After each participant finished the translation, the principal investigator offered them a short break and then initiated the second part of the experiment – the collection of retrospective TAPs. The translation process recorded by the Translog key-logging software was played back to the participant at a speed of 200% (i.e. at a pace slow enough to give them time to comment on the breaks or corrections, but fast enough to allow us to get through it in a reasonable amount of time) and the participant was asked to comment on their translation process and translation decisions. They were asked to concentrate on the corrections and pauses.

7A.6 Data Analysis

As mentioned above, we collected three sets of data: the product, the process and the TAPs. These data will first be analyzed separately and then general conclusions will be drawn.

7A.6.1 The product.

The first set of data that we hoped would give us answers to our research questions was the target text produced by our participants. In analyzing the translated texts we noticed significant differences in the quality of the output.

Participant 1 (henceforth P1) produced a text that had 525 words and read like a second original. Except for the occasional spelling mistakes (typos), it was written in good quality English. As they admitted in the TAP, the participants

struggled to make the text sound like a fairy tale, thus they tried to preserve the register characteristic for this genre. For example, the translation of *so antwortete er* was 'he answered thus.'

Participant 2 (henceforth P2), on the other hand, produced a text that is clearly recognizable as a secondary text due to the mistakes present. First of all, there are lexical mistakes, e.g. '[a window] that had a black ebony frame, and stitches,' as a translation of *das einen Rahmen von schwarzem Ebenholz hatte* ([a window] 'that had a black ebony frame'). Secondly, the source language is clearly present because of the capitalization of common nouns typical of German (e.g. 'You must kill her and bring me her Lungs and Liver as a symbol.'– the translation of *Du sollst es töten und mir Lunge und Leber zum Wahrzeichen mitbringen*). All these mistakes make it seem that P2 could not successfully operate in a bilingual mode. To further strengthen this claim, there is one instance of German used in the target text ('When she, sprach sie', as the translation of *Wenn sie vor ihn trat und sich darin beschaute, sprach sie*). Finally, the translation is shorter than that of Participant 1: the target text was just 491 words, since there were some omissions.

Participant 3 (henceforth P3) produced the shortest text (463 words) and the text included many instances of word- for- word translation (e.g. 'she had no more silence' – the translation of *keine Ruhe mehr hatte*, meaning 'she no longer had/was at peace'), or sentences that had an odd syntactic structure (e.g. missing subject).

When the translations of all three participants for the phrases indentified as problematic from the point of view of grammatical gender differences were compared, Participant 1 translated correctly all problematic phrases because they used target language grammatical gender categorization. As mentioned above, the text read like a second original. Participants 2 and 3 both made 3 mistakes each (e.g. *'It was a beautiful woman').

7A.6.2 The process.

The analysis of the key logs provided by Translog reveals the decision-making process of the participants as reflected by corrections. Each of the gender problematic phases was analyzed, and for these problematic phrases P1 did not have any hesitations in their decision-making process, P2 hesitated on grammatical gender-related problems three times, while P3 made two corrections. The corrections are illustrated below in (4) which reproduces a fragment of a log file for P2. The symbols are to be interpreted as follows: ✶ indicates a pause of one second, the number in square brackets is the length of a longer pause, • is a log of a space bar, while for a backspace key, Translog uses a sign ⌫.

(4) [✶12.181]•There•was✶ ✶ ✶ ✶ ✶⌫⌫⌫⌫⌫⌫⌫⌫⌫⌫✶She•was✶ •as•white•as•snow

For sentence (3), P2 struggled with the phrase *Es war soweiß wie Schnee*: they first typed ‘There was’, then corrected it to ‘She was.’ *Es war* could be equivalent to the English ‘there was’ (e.g. in *Es war einmal eine Frau* – ‘there was once a woman’) but this would not be the correct reading in present context.

7A.6.2.1 The pauses.

In order to understand the translation strategy that was applied by the three participants, we analyzed the pauses, deciding that only pauses longer than ten seconds would be treated as meaningful in our analysis.

In the first stage of our analysis, we counted the total number of pauses, with the result that there were no significant differences between participants. P1 stopped 53 times, P2 55 times and P3 made 40 pauses. The time each participant

took to finish the translation may be important and should be kept in mind: P1 and P2 had a similar time - 61 and 62 minutes, while P3 took significantly less time– only 51 minutes.

Next, we divided the pauses into two groups: before the sentence and within the sentence, assuming that if translators work with concepts, not words, they should read and fully understand an entire sentence before attempting the translation. If they work in a word-for-word manner, they would stop within the sentence more frequently and these stops would be correlated with the occurrence of problematic lexical items. The results are presented in **Table 4** below.

Pauses in the translation process	P1	P2	P3
Before the sentence	**20**	**13**	**11**
Within the sentence	**33**	**42**	**19**

Table 4: The total number of pauses in the translation process

To gain more understanding, we also counted the average duration of the pauses made by the participants. The results are presented in **Table 4.**

Average duration of pauses	P1	P2	P3
Before the sentence (**average** time in seconds)	**33**	**39**	**28**
Within the sentence (**average** time in seconds)	**32**	**52**	**38**

Table 5: The average duration of pauses in the translation process.

From this analysis it seems that there were differences in translation strategies applied by our participants. P1 is the only one who stopped before the sentence for a longer time than within the sentence, although the difference is not

significant. Both P2 and P3 paused within the sentence for longer and more frequently than before the sentence and these pauses are positively correlated with the occurrence of problematic lexical items. Very often, as confirmed in TAPs, that was the time it took to look up a word. No pauses related to the occurrence of phrases with problematic grammatical gender items were identified.

7A.6.3 Retrospective Think Aloud Protocols.

In the analysis of the retrospective TAPs produced by our participants, each participant had one comment on the problem posed by the differences in grammatical gender systems between German and English. For example, Participant 3 commented on their struggle with the term *Mädchen* (‘girl’), which is neuter in gender. They said:

> “I used “it” because the German translation is *Mädchen, das Mädchen* – so it is neutral, so “it.” But in English it is a girl so I kept the “it” for a little bit and then I… once it did not make sense anymore I changed everything I could to “she,” because obviously she was a girl.

Participant 1 commented on their decision to use *it* in reference to the mirror, while Participant 2 gave their comments on the sentence that included many pronouns and they admitted using the familiarity with the fairy tale to decide on an appropriate translation.

7A.7 Discussion

From our observations it seems that even in the case of novice translators, if they work with sentences and ideas - i.e. above the word level - grammatical gender differences do not pose significant problems. However, if they translate the text word-for-word, which was the case of two out of our three participants,

they are likely to use the Source Text grammatical gender system, thus making many mistakes in their translation. As a result, their Target Texts did not read well.

With reference to our hypothesis, the result was that the translators did not consciously consider grammatical gender to be a problematic issue in the process of translation, since in their TAPs there was just one mention per participant of such difficulty. However, as expected, we could observe the difficulties in the process of translation as recorded by Translog, where we found many instances of hesitations in the log files. Finally, we were surprised to see the mistakes in the target texts. We suspect that these were present because the participants were told to translate the text to the best of their abilities and were assured that the quality of the translation would not be crucial to the experiment. This assurance was given in order to minimize the anxiety level. We assume that for that reason only one participant acknowledged proof reading the text.

7A.8 Strengths and Limitations

We believe that our study exemplifies how the mere comparison of the product and the original would not have answered our research questions in full. Thus the triangulation of data that we achieved by collecting three sets of information (product, process, and TAPs) seems to be the most important strength of our research. We believe that we also added to the reliability of Think Aloud Protocols by collecting retrospective, not concurrent, protocols.

However, as a research tool Translog has problems and limitations, the most significant being that "log file data are objective third-person observations, but the evaluations of the movements after pauses are not" (Hansen 2003: 36). Thus we acknowledge that the analysis of data undertaken in this article is

subjective. However, our study, being exploratory in nature, seems to have at least partially answered our questions.

7A.9 Future Directions

Since this study is, as mentioned above, exploratory in nature, there is future research that we intend to undertake to gain further understanding of and insight into the issue of grammatical gender in translation. First of all, we would like to conduct a similar investigation but include participants with other linguistic backgrounds to see how three different grammatical gender systems would interact. For example, using native speakers of Slavic languages would provide an interesting comparison, as Slavic languages have more complex grammatical gender systems than English and they assign grammatical gender to inanimate nouns. Moreover, we would like to use an unfamiliar text as stimulus in order to limit the possibility of relying on the shared cultural context to solve translation problems. Finally, we hope to use Translog combined with eye-tracking to gain other information on how the source text is read and processed by the translators.

7A.10 Conclusions

Our preliminary results suggest that grammatical gender differences pose problems in the process of translation but they do not influence the fluency of translation. In our data, there were no pauses correlated with items that were problematic because of grammatical gender differences. However, the difficulties were visible in the quality of the product, thus we believe that an awareness of the differences in grammatical gender systems in various languages should be included in translation training. Since this linguistic aspect aptly illustrates how

conceptualization systems differ in languages, it also demonstrates why word-for- word translation does not produce good quality results. Thus, grammatical gender may be used to raise students' awareness of why they should use "professional" translation strategies – i.e., avoid working on a word level and search for equivalents on the level of conceptualizations. In conclusion, it may be said that the difficulties related to grammatical gender in translation need much more attention than they are currently receiving.

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CHAPTER 7B

7B MISALIGNMENT OF GRAMMATICAL GENDER SYSTEMS AND THE PROCESS OF TRANSLATION

7B.1 Preface

The following subchapter is a direct continuation of Chapter 7A as it describes the experiment that followed the pilot study summarized there. Some elements of the paper presented in this Chapter overlap in a significant way with the previous chapter and with Chapters 2 and 3, however, they were left in the thesis as they were parts of the original, self-contained paper.

As the first author of the paper, I was responsible for almost all stages of the article production. Dr. Stroińska, who is the second author, prepared the stimuli and the hypotheses (as was explained in the introduction to Chapter 7A), participated in data interpretation, as well as made significant revisions to the final draft of the paper.

The paper was submitted to the journal *Across Languages and Cultures* in May 2013. As in the case of the previous chapters, the formatting has been changed to make this thesis read as one coherent text, the numbering of tables was also modified to fit the thesis. The bibliography that is presented at the end of this chapter remained unchanged and has been formatted according to the requirements of the article publisher.

Misalignment of grammatical gender systems and the process of translation

Grażyna Drzazga & Magda Stroińska

Submitted to *Across Languages and Cultures* in May 2013.

7B.2 Abstract

This paper investigates how differences in grammatical gender systems influence the process of translation. Fifteen undergraduate students – all native or near native speakers of English – participated in an experiment in which they translated a text from German into English using Translog, a keystroke logging software. To triangulate the data, retrospective Think Aloud Protocols were also collected with participants commenting on their translation process as replayed by Translog. The experiment took place at the end of a one-semester German translation course, which all the students took together. The results of the study suggest that grammatical gender is problematic in translation from German to English, and this is apparent both in the product of translation and in the translation process. The data collected during the experiment provides insight into which translation strategies are applied by novice translators and what may be the predictors of a successful translation. In conclusion, the findings of the study suggest that the linguistic category of grammatical gender should be included in translation training for at least two pedagogic reasons: it is more problematic than it might seem, and it emphasizes the need to work above word level when translating. Awareness of these findings would help novice translators produce more skillful translations and develop more professional translation strategies.

Key words: grammatical gender, translation process, translation strategies, key-logging, Translog, Think Aloud Protocols

7B.3 Introduction

In the opening sentence of his monograph on the subject Corbett (1991: 1) claims that grammatical gender is “the most puzzling of the grammatical

categories." Moreover, it is the only grammatical category "that ever evoked passion – and not only among linguists" (Matasović 2004: 13). The controversial issues surrounding this topic include, among others, the origin of grammatical gender, its status – whether it is morphosyntacic or semantic (e.g., Hagoort and Brown 1999), and the number of genders in different languages. In addition, there are numerous and ongoing social changes that grammatical gender has to reflect, for example, the emergence of feminine equivalents to masculine names of professions – the so called "gender specification strategy" (Pauwels 2003: 558).

Grammatical gender supports the assumption that language is "a symbolic guide to culture" (Sapir 1970: 70). Gender seems to contribute to how a speaker relates to the world and according to Jakobson "plays a great role in the mythological attitudes of a speech community" (1959/2003: 117). For example, the grammatical gender of the names of the weekdays influences the gender of their personifications.

Furthermore, even if the referent is inanimate, the assignment of grammatical gender seems to influence the features by which the referent can be characterized. Thus speakers of languages that have a complex category of grammatical gender often assign masculine features to masculine nouns, while feminine nouns may similarly be perceived as female-like (cf. Boroditsky et al. 2003; Konishi 1993). Finally, grammatical gender significantly influences the cultural perception of the most important social, emotional and abstract concepts, for example, *death* (cf. Drzazga and Stroińska 2012; Drzazga et al. 2012).Taking into account the suggestion that "the private mental lives of people who speak different languages may differ much more than previously thought" (Boroditsky et al. 2003: 77), the present study investigates the process of translation between two languages whose grammatical gender systems do not match. The main goal of this investigation is to see how the differences in grammatical gender categorization affect the fluency and the quality of translation. Since the study

uses novice translators as participants, the analysis will also touch upon the translation strategies used by the participants.

7B.3.1 Gender and translation.

The issue of translating grammatical gender may not seem challenging, at least at first glance. When Mona Baker (1992: 92) discusses this linguistic category in her translation theory textbook, she only emphasizes the fact that in English gender distinction is relevant mostly if the referent is human, while "gender distinctions in inanimate objects […] do not often cause difficulties in non-literary translation." The challenges of grammatical gender in literary translation and of gender system mismatches are not touched upon (for some discussion of this topic cf. Drzazga and Stroińska 2012; Drzazga et al. 2012, Stroińska 2007)

The use of grammatical gender in bilingual individuals, however, seems to be a well-researched topic; gender acquisition, simultaneous activation of two gender systems or their interaction have been the focus of many studies (e.g., Abutalebi and Green 2007; Bassetti 2007;Costa et al. 2003).

In contrast, grammatical gender in translation has not yet been studied in depth. If used at all, translation is one of the tasks assigned to gain understanding of the bilingual processing of words – usually as an alternative to picture naming (e.g., Bordag and Pechmann 2008; Miller and Kroll 2002). A study of gender ambiguity in translation was undertaken by Cordisco (2011), but it was conducted within the "traditional perspective," that is, the comparing of fragments of source text (ST) with their translated equivalents in the target text (TT) in order to identify translation strategies and assess the outcome.

Recent studies that concentrate on the process of translation and use methodology other than a "traditional" comparison of two texts ask questions

about, among other things, the effectiveness of translation training (Malkiel 2006), a comparison between translation and monolingual text production (Immonen 2006), text segmentation and translation units (Dragsted 2005; Immonen 2011), translation strategies as revealed by revisions (Tirkkonen-Condit et al. 2008), the meaning of pauses in the process of translation (O'Brien 2006), typos (Munoz Martin 2009), indicators of difficulty (Dragsted 2012) and the emergence of the translator's voice (Kolb 2011). Thus the present study is to a great extent exploratory in nature.

7B.4 Experiment Design

The present investigation uses an interdisciplinary cognitive approach, as defined in Drzazga (in print). It takes as its starting point the findings of psycholinguistic studies that during translation both linguistic systems are active at the same time. Building on theories developed by Langacker (2008) and Tabakowska (1993; 2000) among others, equivalents are understood not as dictionary entries but rather as complex conceptual and experiential networks. Finally, this study concentrates on both the process and the product of translation.

7B.4.1 Hypotheses.

At the beginning of the investigation three hypotheses were formulated. First, since the linguistic resources of German and English differ when it comes to grammatical gender, it was hypothesized that grammatical gender dissimilarities increase the difficulty of the translation, which should be reflected in the *process* of translation. However, we did not expect to find mistakes in the target texts (the *product*) as the participants had a fairly advanced knowledge of the source language and had cultural knowledge of the content of the source text. Moreover,

the participants were translating into their dominant language, thus errors as to which gender was needed should have been easy to avoid. We also assumed that if mistakes of this kind did appear, they would significantly influence the evaluators' assessment of the overall translation quality.

Secondly, it was hypothesized that if translators worked above word level and used larger segments of texts, they would make fewer mistakes connected with grammatical gender. Word for word translation, which we assumed would be reflected by a high number of pauses within the sentences, would likely result in a higher number of such mistakes.

Finally, since the incompatible grammatical gender systems of the two languages had been emphasized in the translation course taken by all the participants, it was hypothesized that gendered words would be approached more carefully, and this would be reflected in the subsequent Think Aloud Protocols (TAPs)

7B.4.2 Methodology.

To record the process of translation, a key-logger program – Translog – was used. Translog is designed "to be an automatic, subject-independent tool for collecting hard, supplementary process data to the softer data collected by means of introspection, retrospection and think-aloud" (Jakobsen 2006: 96).

Translog has two components: Translog User and Translog Supervisor. The participants worked on Translog User to produce their translation. This component of the program resembles a simple text editor with the screen divided into two parts: the top part of the window presents the source text, and the bottom part of the window is used for inputting the translation. The second component, Translog Supervisor, has flexible settings to allow for the creation of a variety of experiments, as well as data analysis. All mouse clicks and key strokes, along

with the precise timing of their occurrence, can be accessed by this component. Moreover, Translog Supervisor has a replay function that makes it possible to watch the process of translation in real time or at an adjusted speed.

The second means of collecting data in our study were Think Aloud Protocols (TAPs), a tool adapted from psychology for investigating cognitive processes that take place during translation. Even though the application of this methodology in translation research has facilitated many compelling observations (see Jääskeläinen 2002 for an annotated bibliography), TAP studies have received some criticism. Problems include: the difficulty of replicating studies because TAP studies have no established paradigm; the potential for interaction between participants and researchers to bias analysis during data collection; and the interference of the oral production of TAPs with the written experimental task (i.e. participants may not be able to perform a complex problem solving task simultaneously with protocol production) (Bernardini 2001, Toury 1991). Empirical research also suggests that TAP production delays translation and influences segmentation of the text (Jakobsen 2003).

In order to tackle at least some of these pitfalls, the present study uses a design proposed by Hansen (2006) – an R+Rp model (retrospection and replay). After completing the translation task, the replay function allows participants to watch their translation process and comment on the difficulties they encountered, explain their pauses and the subsequent translation decisions they made. The replay of the typing serves as "retrieval cues" and stimulates the memory of the participant (Hansen 2006: 7), while leaving the actual translation and decision making process undisturbed.

7B.4.2.1 Stimuli

The present study focused on German as the source language and English as the target language. In the singular, German nouns belong to one of three grammatical genders: masculine, feminine or neuter; in the plural there is no gender distinction grammatically. All nouns – both animate and inanimate – are assigned gender on the basis of "overlapping semantic, morphological and phonological factors" (Corbett 1991: 49). English has a pronominal grammatical gender system with gender marking visible only on pronouns; these are assigned by semantic criteria and inanimate nouns are normally referred to using neuter pronouns.

In the experiment, the participants translated the opening paragraphs of Grimms' fairy tale *Schneewittchen* ('Snow White'). The text was in German and had 506 words. This particular passage was chosen in order to minimize the anxiety of participants who might have felt apprehensive about translating an unfamiliar text due to the limitations of their proficiency in German. What is more, the translation of fairy tales had been discussed and practiced during the translation course that all the participants had taken, thus they already had some experience with the genre. As *Snow White* is a cultural text in the target language, participants could also use their familiarity with the content to resolve translation problems.

Words or phrases in the original (Gebrüder Grimm 1950/1981: 114-124) that were thought to be too archaic or challenging were modified for the purposes of the experiment. Since it was felt that the text did not include enough examples of gender problematic items, the structure of two sentences was changed, as illustrated by the following example:

The sentence

Bald darauf bekam sie ein Töchterlein, **das** war so weiss wie Schnee…
'Soon after that she gave birth to a little daughter **who** was as white as snow…'

was changed to:

Bald darauf bekam sie ein Töchterlein. **Es** war so weiss wie Schnee…
'Soon after that she gave birth to a little daughter. **It/she** was as white as snow…'

The modified text in the experiment contained a total of 15 fragments in which the translation from German into English required a change of grammatical gender. The examples below illustrate two challenges for the translator:

Es [Schneewittchen] war so weiss wie Schnee '
'It [Snow White] was as white as snow'

so antwortete **er** [der Spiegel]
'so answered he [the mirror]'

In the first example, the referent of the German pronoun *es* is the girl, Snow White. German uses the neuter pronoun *es* 'it' since both the noun *das Mädchen* 'the girl' and the name *Schneewittchen* 'Snow White' are neuter. In the target text, this pronoun should be changed to 'she' as the referent is animate – a young girl. The second example illustrates the opposite situation in which a German inanimate noun, *der Spiegel* 'mirror,' is assigned masculine grammatical gender and so has to be referred to with the masculine pronoun *er* 'he.' In the English translation, *er* should be changed to the neuter pronoun 'it.'

7B.4.2.2 Participants

Two groups of participants took part in the experiment. The first group consisted of three pilot participants. The results of this pilot study were presented at the LACUS 39 conference and are to be published in the subsequent conference proceedings (Stroińska & Drzazga 2012). We used this group to test whether the experiment design was appropriate and to make any necessary adjustments. However, since the only adjustment that was made was the speed of replay used for the collection of retrospective TAPs, the data from this first group is included in the analysis presented here.

Following the pilot study, twelve more participants completed the experiment creating a total of fifteen data-sets. Thirteen participants were native English speakers, and two had a near-native proficiency in the language. The participants formed a homogenous group from the point of view of their educational background as they were all undergraduate students. Proficiency in written German was also comparable across the group as all participants had taken at least two years of German language instruction prior to the experiment. None of the participants declared any formal experience with translation outside of the classroom. Seven of the participants were female and eight were male.

7B.4.2.3 Procedure

The experiment consisted of two stages: translation production and Think Aloud Protocol collection. During the first stage, participants were asked to translate the text to the best of their ability on a computer using Translog. In order to limit their anxiety, each participant was left alone in the room to mimic the way students often work on a computer. To reduce stress even further, the participants were also provided with a hard-copy of a German-English dictionary. There was,

however, no access to any on-line resources. Finally, the experiment had high ecological validity as participants recognized translating on a computer as a real-life task.

After completion of the first part of the experiment, the participants were offered a short break of no longer than 3 minutes. Next, they were asked to produce TAPs while watching their translation being replayed back to them by Translog. The text was replayed at a speed of 250%,that is, 2.5 times faster than its original production. This speed was chosen as it left enough time for the participants to verbalize their thoughts while being fast enough to avoid making them uncomfortable. The participants had an option of adjusting the speed, if they felt uncomfortable, but none of them used it. The protocols were audio recorded.

In contrast to the design used by Hansen (2006), the investigator in our study remained in the room with the participant during the collection of TAPs, but she did not engage in interaction with him or her. She also sat beyond the participant's field of vision in order to minimize the observer-expectancy effect. Before the replay of the translation started, the participant received general instructions. The presence of the investigator was found to be crucial for the quality of TAPs as most participants had a tendency to produce an oral critique of their translation instead of a Think Aloud Protocol. If they misunderstood their task and began critiquing rather that reflecting, they were given additional instructions and reminders. This feedback was restricted to the first one or two minutes of data collection, and the investigator did not interact with the participant after that time.

7B.5 Data Analysis

Three sets of data were collected for each participant: 1) text files with the final product of their translation; 2) log files of the translation process as collected by Translog; and 3) audio recordings of the retrospective Think Aloud Protocols.

Translog provided us with the following data: the duration of the translation, the total number of events (key strokes and mouse clicks), a key log with the exact time of each event, and a record of all text production and text elimination events. Following Malkiel's (2006) methodology, the final number of characters (including spaces) as counted by Microsoft Word were subtracted from the total number of events (including deletions) calculated by Translog. These additional keystrokes were assumed to be a reflection of the difficulty of the task for each participant as they suggest the varying levels of hesitations and corrections.

What is more, pauses longer than five seconds were identified in all log files. The length of pause we considered meaningful was partially based on the results of a study by Van Waes and Schellens (2003), in which it was shown that writing using a word processor as compared to writing by hand is much more fragmented. The study used three second breaks and the researchers found that participants working on a computer paused 70% more often (ibid., 838). For the present study it was thus assumed that pauses shorter than five seconds may not correlate with a difficult fragment but rather with the use of a word processor and a lack of automaticity in the translation process. The pauses were divided into two categories: "before the sentence" and "within the sentence." "Before the sentence" was defined as any pause that occurred after the full stop of the previous sentence had been typed and no more corrections were made to that fragment.

7B.5.1 Translation product.

The first part of the data analysis concentrated on the product, not unlike in a "traditional" study of translation. The participants' translated texts were analyzed in two ways: the mistakes in the fifteen fragments with problematic grammatical gender were identified, and the general overall quality of translation was assessed. These findings are described in sections 3.1.1. and 3.1.2 respectively.

7B.5.1.1 Fragments requiring grammatical gender change.

In total there were 19 errors and five omissions found in the target texts. These tended to cluster around the same fragments in the source text.

The fragment that elicited the most mistakes was the one quoted as an example in section 2.2.1 (*so antwortete er* 'so he answered'). Four out of the fifteen participants struggled with the grammatical gender of the mirror, using the pronoun 'he' instead of 'it.' However, the case of the mirror is complex: it is possible that the participants were using a masculine personification of the mirror based on its depiction in the Disney movie *Snow White*, which would most likely be the version they were familiar with, rather than the written version.

The next fragment participants found challenging was the sentence: *Der Koch mußte sie in Salz kochen, und das boshafte Weib aß sie auf und meinte, sie hätte Schneewittchens Lunge und Leber gegessen* ('The cook had to cook them in salt and the wicked woman ate them up and thought she had eaten Snow White's lungs and liver'). The first two instances of the German pronoun *sie* refer to Snow White's lungs and liver and thus should be translated as 'them.' However, the third instance of *sie* in the sentence refers back to the woman and should be translated as 'she.' This is because *sie* is a homophone; it represents both the

plural 3rd person pronoun (nominative and accusative) and the feminine singular 3rd person pronoun (nominative and accusative). Four participants were confused by this and decided to use the neuter pronoun 'it' in their translations for all three occurrences of *sie*.

Three participants had problems with the sentence *Es war eine schöne Frau* ('It was a beautiful woman'). This example illustrates a different type of problem with the gender of pronouns. In this sentence the pronoun *es* ('it') has no reference and functions as the so called *Platzhalter* or 'place holder' as the subject position must be occupied in German (cf. Pütz 1986). However, the literal English translation "it was" is not a correct equivalent in this sentence. The subject pronoun should have a gendered form (in this case 'she') because the predicate noun refers to a person.

7B.5.1.2 General quality of translation

Assessing the quality of a translation may seem straightforward, but it is in fact quite problematic as many factors have to be taken into account at the same time. The subjectivity of assessment and the challenge of attaining consistency between markers also play a role, making the results statistically unreliable.

In order to control for these factors, the present study uses a detailed assessment rubric. The rubric has been adapted from Angelelli (2009) and is composed of five evaluation criteria: 1) the source text meaning, 2) the style and cohesion of the translation, 3) the situational appropriateness, that is, the use of register, cultural reference, and pragmatic function in relation to the original text (ibid. 43), 4) grammar and mechanics that concentrate on linguistic competence in the target language, and 5) translation skills - a measure of successful solutions to translation problems.

The rubric uses a 1-5 scale for each component with 1 being the lowest mark and 5 being the highest. Thus a perfect translation would be given 25 points. The quality of translation was assessed by three independent evaluators: 1) an experienced translator and teacher of translation who is a near native speaker of German, 2) a native German speaker who teaches German to non-native speakers, and 3) a graduate student with a structural knowledge of German. The mean of the three grades was calculated and used in the overall analysis.

7B.5.1.3 *Grammatical gender and the quality of translation product*

To understand if the mistakes in the target phrases that were problematic influenced the general assessment of the quality of translation, a mean grade for each participant and the number of gender-related mistakes were correlated. It turned out that there was a significant relationship between the number of mistakes and the grade $r=-47$, $p<0.05$.

7B.5.2 Translation process.

Translation cannot be perceived as a simple input-output procedure; thus an analysis of the product by itself cannot provide meaningful answers about the effects of grammatical gender on the fluency of translation. The translation process, as recorded by the key-logger, was therefore also analyzed to identify the pauses and hesitations connected with the fragments containing potentially problematic grammatical gender.

7B.5.2.1 Pauses

As demonstrated by previous studies, pauses are a valid means of analyzing the process of translating and the segmentation of the text (e.g.,

Dragsted 2005, 2012; O'Brien 2006; Immonen 2006). In the current study, pauses longer than five seconds were considered significant in the general analysis of translation patterns.

Since it was assumed that more experienced professional translators work at or above the sentence level and do not translate word for word, the pauses were divided into two groups: "before the sentence" and "within the sentence." We hypothesized that with the less skilled participants we would see more "within the sentence" pauses.

Based on the data collected, we found that participants had different ways of segmenting their translation. "Before the sentence" pauses that could be an indication of translation proficiency constituted 11%-37% of the total number of pauses and 7%-37% of the total time of pauses per individual participant. However, the majority of the participants used "the analytic mode" characterized by Dragsted (2005: 66) as "short average segment size, low production speed and long pauses, processing at word/phrase level, many single-word segments, and few exceptionally long segments."

To see if any of the segmentation patterns used by the participants resulted in a better quality of translation, the number and the total time of "before the sentence" pauses was correlated with the mean grade. However, no significant correlation was found.

The pauses were also used to assess the challenging nature of the gender problematic items. For this analysis, pauses before the item or before the sentence including the items that were longer than one second were considered. It turned out that most time was spent on the sentences containing problematic items:

Der Jäger gehorchte und führte es hinaus, und als er ein Messer gezogen hatte und es gebrauchen wollte um Schneewittchens unschuldiges Herz durch zu bohren, fing es an zu weinen und sprach

'The hunter obeyed and took her away, and when he pulled out the knife and wanted to use it to cut through Snow White's innocent heart, she began to weep and said'

And the sentence:

Und als gerade ein junger Frischling dahergesprungen kam, stach er ihn ab, nahm Lunge und Leber heraus und brachte sie als Wahrzeichen der Königin mit

'And since at precisely that moment a young boar came out, he stabbed it/him, took out its/his heart and liver and took them as a proof for the queen'.

However, since these sentences were complex, it is difficult to establish whether the pauses are in correlation with gender problematic items or with the level of syntactic complexity and lexical difficulties. The fragments that were identified as problematic in the product of translation did not cause longer pauses.

7B.5.2.2 Hesitations

The application of Translog in an experiment allows us to look deeper into the process of translation and to see if there were any instances of corrections connected with grammatical gender in the problematic fragments.

Translog uses the following symbols in the log files: ✶stands for a pause, in our analysis the length of this pause is one second; the number in square brackets that follows✶ shows the length of a longer pause; ◆ is a log of a

space bar; ⌫ represents the backspace key; ⏎ symbolizes an enter key;

← and → indicate the arrow keys being used to move the cursor.

The Translog output record below illustrates the problems that one of the participants encountered while rendering the fragment *Es war so weiß wie Schnee, so rot wie Blut und so schwarzhaarig wie Ebenholz*:

> She◆was◆✶⌫⌫⌫⌫⌫⌫⌫⌫It◆was✶⌫⌫⌫⌫⌫⌫She◆was◆so◆whil⌫⌫ite[✶34.514]◆as✶◆snow,◆s◆⌫◆⌫o◆red◆as✶✶✶◆blood◆and◆so◆black✶⌫⌫⌫⌫⌫⌫⌫⌫her◆hair✶◆was◆so◆✶dark⌫⌫⌫⌫black◆✶✶as✶✶◆the◆ebony

The participant first typed the correct ‘She was,’ then changed it to the incorrect ‘it was,’only to edit it again and type ‘She was.’ The initial pronoun *es* in this sentence refers back to the noun *ein Töchterlein* (‘little daughter’ which is neuter in German) in the previous sentence. However, *es war* could also be rendered correctly as ‘it was’ or even ‘there was’ in other situations, therefore the translator struggled to establish how to translate this phrase properly.

The fragment in which the gendered pronoun ‘he’ referred to a mirror (*der Spiegel* in German is masculine) was also problematic, as is illustrated by the example below:

> ✶⏎⏎so◆he✶✶⌫⌫o⌫it◆answered✶"⌫:⏎⏎⏎⌫"✶

The following fragment exemplifies the challenge of translating grammatical gender:

Es war eine schöne Frauaber sie war stolz und übermütig

*'It [the queen] was a beautiful woman but she was proud and arrogant'

✶.◆✶✶✶✶✶It◆was◆a◆beautiful◆woman✶,✶←←←←←←
←←←←←←←←←←←←←←←←←←⌫⌫She◆◆✶⌫⌫✶→→→
→→→→→→→→→→→→→→→→→→→→→→→→→→→[✶15.
450]◆✶✶✶but◆she◆was✶◆[✶01:15.310]full◆of◆piri⌫
⌫⌫ride◆[✶33.746]and◆arroga✶✶✶✶✶nce[✶48.387]

The analysis of the hesitations found in the log files showed eleven fragments in which mistakes were made and then corrected. Without the use of Translog records, we would have had no evidence of the struggle these participants had gone through in order to produce an accurate translation.

7B.5.2.3 Think Aloud Protocols

The main objective of the TAP collection was to provide supplementary data about the challenges of grammatical gender in the process of translation. The analysis of TAPs also allows one to understand what other aspects of a source text might be demanding for participants.

Eight of the fifteen participants mentioned translation decisions connected with grammatical gender category in their protocols. It turns out that the grammatical gender of the noun *das Mädchen* was consciously perceived as the most difficult, as illustrated by TAP data examples 3 and 4.

> And here I was switching between ‘it’ and ‘her’ because I said kid before which would be ‘it’ but it was a girl.

> I used ‘it’ because the German translation is *Mädchen, das Mädchen* – so it is neutral, so ‘it.’ But in English it is a girl so I kept the ‘it’ for a little bit and then I… once it did not make sense anymore I changed everything I could to ‘she,’ because obviously she was a girl.

Grammatical gender assigned to inanimate nouns was consciously perceived as challenging. Excerpt 5 illustrates the comments of one of the participants on their decision about the gender of the noun “mirror” (*der Spiegel*).

> And there too a mirror in German is a masculine noun so whenever it referred to it I had to say ‘it’ instead of ‘he’ or ‘him’ because that is what makes sense.

From TAPs it also became clear that participants were using context to help them solve ambiguities connected with grammatical gender, as exemplified in 6.

> And I do not understand the sentence and the next sentence was, he was talking to the girl so I just translated it as something along the lines that the hunter tracked down the girl.

In addition to references to grammatical gender problems, the TAPs were also examined for other challenging aspects that the participants reported. Not surprisingly, taking into account that German was not their native language, all participants had to look up words and this was the reason for the longest breaks in translation flow. Differences in sentence structure were mentioned by four participants. Some of the participants strived to find perfect equivalents for German words to make the target text read as a fairy tale. For example, one

participant commented on changing ‘evil’ to ‘malicious’ as it sounded more appropriate in the given context.

It turned out that the most puzzling fragments of the source texts were three idiomatic expressions:

> *Da erschrak die Königin und ward gelb und grün vor Neid* (‘the Queen was shocked and turned yellow and green with envy’)
>
> *Und der Neid und Hochmut wuchsen wie ein Unkraut in ihrem Herzen immer höher* (literally ‘And envy and pride grew like weeds in her heart ever higher’)
>
> *und doch war's ihm, als wäre ein Stein von seinem Herzen gewälzt* (literally ‘and yet it seemed as if a stone had rolled from his heart’)

These three fragments proved problematic for eight of the participants. All eight reported trying to find English expressions that would have equivalent function in the target language. Table 6 summarizes the most common problems that were mentioned in TAPs.

The description of the problem	**Number of participants who reported this as a problem**
Long sentences/different word order	4
Rhyme in *Spieglein, Spieglein an der Wand, Wer ist die Schönste im ganzen Land?*	3
Lexical equivalents	5
Looking up words	15
Grammatical gender	8
Idiomatic expressions	8

Table 6. Translation problems mentioned in Think Aloud Protocols

7B.6 What Influences the Quality of the Translation?

Translog provided an abundance of data that helped us to understand the translation process, thus making it possible to address the question of what could

serve as predictors of a successful translation. In order to investigate this question, the average grade given to the target text was correlated with the following factors: time spent on translation, additional keystrokes and text elimination.

The only significant correlation identified was between the average grade and text elimination r=-438, p <0.05. This suggests that the more corrections made in the process of translation, the lower the grade. This, at first glance, surprising conclusion may be explained by some of the translation strategies being applied. Since most of the participants appeared to be using a word-for-word technique, text elimination was the result of an incorrect understanding of the elements which became apparent to them once they considered larger chunks of the text.

Interestingly, German language proficiency was not a reliable predictor of successful translation. Participants who reported having lived in Germany and who were, according to their own judgment, fluent in German did not produce better target texts. It thus seems that a lesser knowledge of the source language can be compensated for by other skills such as, for example, better translation strategies or better writing skills.

7B.7 Results

The hesitations in the process of translation that were recorded by Translog confirm the first part of our hypothesis: grammatical gender poses a challenge in translation if two languages have different grammatical gender systems. However, contrary to our assumptions, numerous mistakes were found in the final translations, even though the content of the text was familiar and participants translated into their first or dominant language. These mistakes significantly influenced the markers' evaluations of overall translation quality.

The analysis of pauses revealed that none of the segmentation patterns used by the participants was particularly successful since there was no correlation between the number and time of pauses and the grade. Thus the study also revealed that these novice translators were not able to put into practice their theoretical training as most of them translated the texts word-for-word, stopping only for more challenging lexical items. This observation is based on the fact that the longest breaks were found just before the production of equivalents for less frequent or more difficult words and expressions. The findings did not allow us to test the second hypothesis – whether working at the conceptualization level would result in fewer mistakes when it comes to grammatical gender – as the data simply did not contain enough variability in translation patterns.

Using word-for-word translation, many participants tended to stick to the grammatical system of the language of the original, despite their familiarity with the content of the fairy tale. Thus it seems that it was not just the grammatical gender that was problematic, but rather the students' inability to apply more professional translation segmentation strategies. What makes this claim stronger is the fact that in the TAPs grammatical gender was quoted as a problem as frequently as idiomatic expressions. This suggests that the participants were aware of the traps posed by this grammatical category.

Finally, the statistically significant correlation between text elimination and the grade revealed that if most of the decision making occurs at a higher level of cognitive processing, that is, above the level of individual words, then the output of translation is given a higher grade. Thus students who read longer segments of text before starting to type their translation had fewer instances of deletion than those who attempted to translate individual words as they went through the text.

7B.8 Conclusions and Further Research

The present study, being exploratory in nature, is not without shortcomings when research design is considered. First of all, the analysis and categorization of data are ultimately subjective since the "log file data are objective third-person observations, but the evaluations of the movements after pauses are not" (Hansen 2003: 36). For example, in this study the decision of what length of pause makes it significant lies at the discretion of the researcher. Furthermore, as acknowledged in other Translog studies (e.g., Malkiel 2009), data analysis in translation process studies is not only subjective but also extremely time consuming and arduous and thus may be prone to mistakes.

Furthermore, the implementation of retrospective TAPs can be criticized for a number of reasons. First of all, it may be claimed that the participants did not remember their translation process exactly and were therefore not able to report it well. Moreover, in retrospective TAPs "[participants''] memory is guided by their knowledge of the result" (van Someren, Barnard & Sandberg 1994: 21).Thus, if their problem solving involved any incorrect garden path considerations, it is possible that the participants would not mention them since they remembered the solution to the particular problem. These design deficiencies are significant, but, all things considered, retrospective TAPs with the assistance of Translog seem to be a more reliable tool than the simultaneous acts of translation and TAP production.

This study opens up prospects for more research that would promote a deeper understanding of the challenges involved in grammatical gender in translation. First of all, other language types should be included. For example, the inclusion of participants with linguistic backgrounds other than English – such as, native speakers of Slavic languages that have complex grammatical gender systems – would make it possible to see how the knowledge of other language

systems impacts the translation process and outcome. In addition, using two languages that have similar gender systems but different gender assignment for particular nouns (e.g., German and Slavic languages) would provide interesting insights into the issue of grammatical gender in translation. As a final point, combining Translog, TAPs and eye-tracking would give a fuller picture of how the source text is being processed. We could, for example, discover what the participant was focusing on during pauses and how far they proceed in reading the text before starting to type its translation.

In conclusion, this study of the process of translation between languages with misaligned systems of grammatical gender has revealed that grammatical gender seems to still pose a problem for novice translators even if this linguistic aspect is included in their training. This observation leads to a more general conclusion that novice translators appear to work at the word level. Since the findings about the problematic nature of grammatical gender are preliminary and need more investigation, the most important conclusion of this study is a pedagogical observation: including the aspect of grammatical gender in translation training may help to demonstrate why translating at the word level is an error prone technique while working at the level of conceptualization results in more effective translation decisions.

7B.9 References to Chapter 7B (Also included in the main bibliography at the end)

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CHAPTER 8

8 POLISH HYBRID NOUNS: WHAT CAN THEY TELL US ABOUT COGNITIVE ASPECTS OF GRAMMATICAL GENDER?

8.1 Preface

Chapters 4 to 7B discuss the complexities of grammatical gender from the point of view of translation theory and practice and point to cultural reflections of this grammatical category. The following chapter adds one more element to the puzzle of this linguistic category – the nature of gender assignment and agreement in the so-called *hybrid nouns* in Polish.

Even though the focus of the following article differs from that of the previous chapters, it still pertains to the main topic of this thesis: grammatical gender and its intricacies. More specifically, it concentrates on the mechanism of gender assignment, the misalignment of grammatical gender and natural gender and their reflection in agreement patterns.

The section presenting grammatical gender in Polish is a summary of the findings discussed in Chapter 2. The methodology section of the article is presented in more detail in Chapter 3.

The article was submitted to the *LACUS Forum* in 2013. It was accepted and underwent the first round of revisions. The text of the paper was left unchanged, while the numbers of sections and the format of headlines were changed to follow the formatting of this thesis.

Polish hybrid nouns:
What can they tell us about cognitive aspects of grammatical gender?

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Submitted to *LACUS* Forum 39.

8.2 Abstract

There is a discussion in the literature on the nature of grammatical gender - whether it is semantic or morphosyntactic (e.g., Hagoort & Brown 1999). On the one hand, it is assumed that gender is assigned at the lemma level, i.e., it is syntactic (Levelt 1989); on the other hand, the agreement seems to be based on conceptual information, suggesting that gender is a semantic category. Addressing the question of the nature of grammatical gender within cognitive linguistics seems problematic due, at least in part, to the lack of an appropriate experimental research methodology. In this paper, I demonstrate that hybrid nouns, defined as nouns that may take both feminine and masculine agreement depending in part on the type of target involved (Corbett 1991: 183), may be appropriate stimuli for the study of the nature of grammatical gender.

Keywords: epicene, epicoena, grammatical gender, hybrid nouns, gender assignment, gender agreement.
Languages: Polish, Russian

8.3 Introduction

Languages that have the category of grammatical gender use different systems of gender assignment: strictly semantic, e.g., Tamil, formal i.e., based on the morphology or the phonology of a given word (cf., Corbett 1991) or a combination of both. When a noun is assigned one gender, it normally does not change it. Thus, grammatical gender is assumed to be of morphosyntactic nature; however, the question of whether its semantic nature should also be taken into account seems unresolved (e.g., Hagoort & Brown 1999).

In this paper, I propose that a special set of nouns – hybrid nouns – if used in empirical investigations of the nature of grammatical gender, may offer more insight into the cognitive aspects of this linguistic category.

First, I shall attempt to define hybrid nouns by clarifying different names and definitions that are present in the literature. Next, I shall discuss the problems these nouns pose using examples from Polish. I shall conclude by proposing an Event Related Potential study that would help to gain understanding of the nature of Polish hybrid nouns and, more generally, of the category of grammatical gender.

8.4 The Definition of Hybrid Nouns

The very term "hybrid nouns" is problematic and requires some elaboration. Corbett (1991) uses the term to refer to nouns that "neither simply take the agreements of one consistent agreement pattern nor belong to two or more genders" (Corbett 1991: 183). He uses the example of the Russian noun *vrač* ('medical doctor'). If *vrač* is used to refer to a female doctor, the noun may take either feminine (semantic) or masculine (formal) agreement pattern. Nouns are subject to an agreement hierarchy. Thus an attributive modifier is usually masculine, though the feminine form is possible; the predicate may be either feminine or masculine, the relative pronoun is normally feminine, but may be masculine; or the personal pronoun is normally feminine, with masculine just possible (Corbett 1991: 183).

The same example is used by Doleschal (2000), but there, the noun *vrač* is described as belonging to epicene nouns. According to Doleschal, epicene nouns show a consistent masculine agreement pattern and exceptionally allow for feminine pattern in the case of a female referent – but not with all agreement targets (Doleschal 2000: 118), thus the definition seems to refer to what Corbett

calls hybrid nouns. Corbett, in turn, claims that epicene nouns normally denote non-humans and in order to specify the gender of an individual, circumlocution has to be used (e.g., Russian *kit* 'whale'). According to Corbett, epicene nouns do not pose any problems from the point of view of the gender assignment system as they take only one gender, but they may refer to either sex (Corbett 1991: 67).

In an earlier article, Herrity (1983), uses the term "epicenes" (or "epicoena") to refer to nouns that are semantically unspecified for sex and that do not have inherent gender. The gender of these nouns is assigned by contextual factors. These are the words that characterize people "by some peculiar feature of [their] social behavior or some personal trait, often negative e.g., Serbo-Croatian *pijanica* 'drunkard', Sorb *zwantora* 'chatterbox'" (Herrity 1983: 41).

For the sake of my investigation, I based my definition of hybrid nouns on that proposed by Herrity (1983). Thus, in this paper hybrid nouns are defined as prototypically referring to humans and characterizing their social behaviour. Further, these nouns can be assigned two genders, feminine or masculine, depending on the natural gender of the referent. Most of the so defined nouns of interest in Polish belong to the 3rd declensional type and their ending (*-a*) suggests that they are feminine. Nouns of this kind can be found in many Slavic languages, e.g., Russian and Serbian *pijanica*, and Slovene *pijandura* ('drunkard'), but the discussion in this paper will be based exclusively on Polish hybrid nouns.

8.4.1 Grammatical gender assignment in Polish.

Before I move to the description of the grammatical gender assignment of Polish hybrid nouns, I shall provide a short description of the grammatical gender system in Polish. In Polish every noun is assigned grammatical gender and nouns do not inflect for gender (Grzegorczykowa 1993: 447), in other words, every noun normally belongs to just one gender category.

Establishing the number of genders in Polish is problematic. Wertz (1997) claims that Polish has seven genders: four in the singular (masculine animate, masculine inanimate, feminine, neuter) and three in the plural (masculine personal, devirilized, and impersonal). Rejecting the split between genders in the singular and plural, Corbett (1983) proposes a six-gender system: masculine personal, masculine devirilized, masculine animate, masculine inanimate, feminine, and neuter. Since it is beyond the scope of this paper to discuss these approaches, a simplified system with three genders in singular: masculine, feminine, and neuter will be used for the sake of the present analysis.

As illustrated below in (1), the noun is a controller and it assigns gender to demonstrative pronouns, numerals, and adjectives. (For a more detailed description of the Polish grammatical gender system cf., Koniuszaniec & Błaszkowska 2001.)

(1) Ta kobieta zauważyła, że jej pies był smutny i (ona) postanowiła wziąć go na spacer.
This$_{FEM}$ woman noticed$_{FEM}$, that her dog$_{MASC}$ was$_{MASC}$ sad$_{MASC}$ and (she) decided$_{FEM}$ to take him$_{MASC}$ for a walk.

Kobieta (‘woman’) is feminine, thus it assigns feminine gender to the demonstrative pronoun “this” and to the possessive pronoun “her”, as well as to the past tense of the verb “decide.” The masculine agreement exemplified above is assigned by the masculine noun *pies* (‘dog’).

Gender is assigned partly on a semantic basis. This is why human beings and animals differentiable by sex are assigned grammatical gender that corresponds to their natural gender. However, many common nouns are also assigned masculine or feminine gender and in these cases the assignment is based on formal properties – the morphophonology – of the noun. All remaining nouns are assigned neuter gender. Gender assignment is highly predictable on the basis

of the declensional type the noun belongs to. However, when there is any disagreement between formal properties and the semantics of the word, referential cues may in some contexts override the morphological motivation (cf., Stroińska 1986: 58 and Corbett 1991: 43).

8.5 Hybrid Nouns in Polish

As Herrity (1983) points out, there are two groups of epicene nouns in Polish. The first group consists of names of professions that end with *–a* but are masculine, for example, *wojewoda* 'commander,' *sędzia* 'judge,' and *radca* 'councillor' (50). In the case of these nouns, the agreement pattern is consistently masculine. Since 1983 the usage of the names of professions has changed considerably and the pattern described by Herrity (1983) would be considered politically incorrect. Currently, the gender-specification strategy, defined as "making women visible in all occupations and professions through systematic use of feminine occupational forms" (Pauwels 2003: 558), is very strongly promoted in Poland. This approach entails using feminine or gender neutral counterparts to masculine nouns. For example, the proponents of the gender-specification strategy oppose to using *radca* 'councillor' to refer to women as this word has a feminine counterpart *radczyni* 'female councillor.' Thus, as a result of these ongoing changes that aim at eliminating sexism in language, some of the words listed in Herrity (1983) have lost their hybrid character.

However, the second group discussed in Herrity (1983), "epicenes of the type *kaleka* 'cripple', *niedorajda* 'muddler'[and] *włóczęga* 'tramp' " (50), contains nouns that, according to the author, are characterized by a great inconsistency in grammatical gender agreement and remain problematic. This inconsistency is particularly visible in the singular, where either morphosyntactic or semantic agreement may be used.

In the plural, the pattern seems to be less complicated, as epicenes normally assign feminine, or rather non-virile gender, to an attributive adjective. The predicate, however, may still take both gender forms in the past tense. For example, *These drips made a mess* could be translated as either *Te ciapy zrobiły bałagan (*These$_{\text{NON-VIRILE}}$ drips$_{\text{HYBRID}}$ made$_{\text{NON-VIRILE}}$ a mess) or *Te ciapy zrobili bałagan* (These$_{\text{NON-VIRILE}}$drips$_{\text{HYBRID}}$made$_{\text{VIRILE}}$ a mess). Due to the lack of complexity, plural forms of hybrid nouns will be excluded from analysis in this paper.

This section will further exemplify the inconsistency described above. The sentence *This terrible clumsy oaf made a mess*, with the referent identified as male, could be translated in at least three different ways.

(2) Ten straszny **gapa** zrobił (male referent) bałagan.
This$_{\text{MASC}}$terrible$_{\text{MASC}}$**clumsy oaf**$_{\text{HYBRID}}$made$_{\text{MASC}}$mess.
(3) Ta straszna **gapa** zrobiła bałagan.
This$_{\text{FEM}}$terrible$_{\text{FEM}}$**clumsy oaf**$_{\text{HYBRID}}$made$_{\text{FEM}}$mess.
(4) Ta straszna **gapa** zrobił bałagan.
This$_{\text{FEM}}$terrible$_{\text{FEM}}$**clumsy oaf**$_{\text{HYBRID}}$made$_{\text{MASC}}$mess.

As illustrated by (3) and (4), even if the feminine attributive pronoun *ta* is used the verb can take either masculine or feminine agreement (Stroińska 1986: 56-(55).

As hybrid nouns are subject to agreement hierarchy, the sentences in which the hierarchy is not obeyed are unacceptable, as illustrated below.

(5) *Ten straszna gapa zrobił bałagan.

This$_{MASC}$terrible$_{FEM}$**clumsy oaf** made$_{MASC}$mess.

Agreement hierarchy ranks four agreement targets: attributive<predicate<relative pronoun<personal pronoun. Corbett noted that "as we move rightwards along the hierarchy, the likelihood of semantic agreement will increase monotonically" (Corbett 1991: 226). Example (5) violates the agreement hierarchy because the masculine attributive pronoun, motivated by semantics, is followed by a feminine attributive adjective, while the predicate is also assigned masculine gender.

8.5.1 Corpus search.

In order to gain a more in-depth understanding of the nature of Polish hybrid nouns, a search in the National Corpus of Polish was performed. The word that was chosen for the search was *gapa* ('scatterbrain/clumsy oaf') due to its high frequency (389 occurrences in the Corpus). In the search, two examples that illustrate lack of consistency in gender assignment were identified.

(6) Raz się,**gapa**, spóźnił i tłumaczył się

Once [the]clumsy oaf/scatterbrain$_{HYBRID}$ was late$_{MASC}$ and was explaining$_{MASC}$[him]self

(7) owczarek alzacki (taka śliczna **gapa**)

Alsatian sheepdog$_{MASC}$ (such a beautiful $_{FEM}$ clumsy oaf)

In example (6) the referent is male, thus the masculine agreement is assigned on both verbs. In example (7) an Alsatian – masculine in Polish – is

described by the hybrid noun *gapa* with an adjective in its feminine form *śliczna* (‘beautiful’). This sentence illustrates a non-prototypical usage of the word *gapa* as it refers here to an animal instead of a human, but the animal is assigned human-like qualities.

To further strengthen the claim that gender assignment is problematic, an internet search of the Polish equivalent of the exclamation *He is such a terrible clumsy oaf/scatterbrain* was performed. We found two versions of this exclamation, illustrated in examples (8) and (9).

(8) Straszny gapa z niego!
He is such a terrible$_{MASC}$clumsy oaf/scatterbrain!
(9) Straszna gapa z niego!
He is such a terrible$_{FEM}$clumsy oaf/scatterbrain!

To a native speaker, both versions clearly refer to a male person yet in example (8) a masculine form of an adjective is used, while in (9) the adjective is feminine. Both exclamations seemed to be equally frequent.

8.5.2 Translog study of hybrid nouns.

The next step of the investigation was a key-logger study. Translog software was used as it records the exact time any key was pressed, thus allowing a detailed analysis of all pauses and corrections.

Seven participants, all female, native speakers of Polish residing in Poland and having no or limited knowledge of other languages, were asked to type a text that was dictated. The text had 98 words and included multiple examples of manipulations of grammatical gender agreement with hybrid nouns. Examples

included phrases such as *ten ciapa* (this$_{MASC}$ drip) and *ta gaduła* (this$_{FEM}$ chatterbox) which were both used to refer to a male character.

It was hypothesized that if any of the manipulations were considered ungrammatical, our participants would have paused or asked for repetition. However, no significant effect was observed. The pauses made by participants were correlated with the occurrence of words that were more challenging in terms of their orthography, for example, *skarżypyta* 'telltale$_{HYBRID}$'. Thus, it was concluded that the participants were overwhelmed by the task of dictation and they did not pay much attention to the content of the dictated text.

Nevertheless, in debriefing after the completion of the experiment, the participants were asked about agreement patterns used with hybrid nouns. Five out of seven participants confirmed the hypothesis that was drawn above – if a referent is male, both agreement patterns can be used and they could not decide which one is "correct."

8.6 An Event Related Potentials Study of Grammatical Gender

The properties of hybrid nouns described above make them appropriate stimuli for an Event Related Potential (ERP) study of the nature of grammatical gender. In this section, I shall first briefly describe the research method and the relevant ERP components. I shall conclude with a proposal of a study that would use hybrid nouns as stimuli.

8.6.1 EEG as a research tool.

Electroencephalogram (henceforth EEG) collects differences in electrical voltages between points on the scalp using electrodes placed on the head of a participant. These differences are a reflection of the neurological activity of the

brain. Due to the fact that raw EEG data reflects all brain activity and not just the activity connected with the experimental manipulation, a modified event related potential (henceforth ERP) design is used. Only time windows that are relevant to the experimental task (the event) are included in the analysis. Similar events have to be repeated multiple times to collect meaningful results because individual ERPs are of relatively small amplitude. These ERPs are later averaged and the components of the ERP waveforms are used in the interpretation of the results. The names of the components reflect their orientation – P for positive, N for negative – and the time they occurred. Thus, N400 is a negatively oriented wave that peaks around 400ms post stimulus (for a detailed explanation of an ERP technique, see Luck 2005).

The investigation of the nature of grammatical gender seems to require the analysis of four ERP components: N400 and P600, left anterior negativity (henceforth LAN), and earlier interior negativity (henceforth ELAN). N400, as mentioned above, peaks at about 400ms after the onset of the stimulus and it is thought to be the reaction to an odd semantic element. For example, when hearing the utterance "The winter was harsh this allowance," the participant's brain would react to the surprising final word as it does not match the expected one – year (Steinhauer & Connolly 2008: 95). Despite the discussion on what this component really reflects (for a discussion, cf., Kutas & Federmeier 2011), it is commonly used to investigate the semantic level of language processing.

P600, LAN, and ELAN are used in the investigation of syntactic violations. ELAN – the earlier component of LAN that occurs between 100ms and 300ms and LAN that peaks between 100 and 500ms are reactions to syntactic violations. Finally, P600, which peaks later – between 500 and 1000ms after stimulus, is thought to be the reflection of an attempt to reanalyze and "fix the anomaly at a later stage" (Steinhauer & Connolly 2008: 97). As with N400, the

P600 component is not uncontroversial but it is still a measure that is considered helpful in answering questions about the syntactic processing of language.

8.6.2 Previous ERP studies of grammatical gender.

Grammatical gender has been previously investigated using the research method described above: however, all of the studies used a violation paradigm. For example, in the study conducted by Osterhout and Mobley (1995), stimuli consisted of sentences similar to "The successful woman congratulated herself/himself on the promotion." In a study of Dutch (Hagoort & Brown 1999) in which the gender agreement between the definite article and the noun was manipulated, the experimental condition included sentences with clear violations (e.g., **Het/De kapotteparaplu staat in de garage.* *The_{NEUT}/The_{COM} broken $umbrella_{COM}$ is in the garage). The usage of hybrid nouns, as it shall be presented next, makes it possible to avoid the disadvantages of this design.

8.6.3 Hybrid nouns as stimuli in an ERP study.

Since there is no consensus on what grammatical gender should be assigned when the controller noun belongs to the group of hybrid nouns, in the experimental manipulation neither of the conditions needs to include evident violations. Stimuli would be divided into two groups: sentences with hybrid nouns and apparent formal agreement; and sentences with hybrid nouns and semantic agreement.

In the first group, hybrid nouns would be treated as if they were feminine, even if the referent is male, for example: *Jan to gaduła. Ta straszna gaduła zrobiła bałagan.* (Jan_{MASC} is a $chatterbox_{HYBRID}$. $This_{FEM}$ $terrible_{FEM}$ $chatterbox_{HYBRID}$ $made_{FEM}$ a mess"). The second group would consist of sentences

in which agreement would be assigned by the natural gender of the referent, for example: *Jan to gaduła. Ten straszny gaduła zrobił bałagan*. (Jan$_{MASC}$ is a chatterbox$_{HYBRID}$. This$_{MASC}$ terrible$_{MASC}$ chatterbox$_{HYBRID}$ made$_{MASC}$ a mess").

If agreement were based on semantics, then no reaction should be seen. However, if semantic agreement was perceived as violation, N400 or P600 should occur. If N400 were observed, it would mean that native speakers perceived semantic agreement as a semantic violation. If it was P600 that occurred, then it would mean that these sentences were processed like sentences with syntactic violations. It is also possible that there is no one uniform way in which hybrid nouns are processed, thus the results from different speakers will be inconsistent.

The findings of this experiment would help us to understand the nature of hybrid nouns; the experiment could prove either that these nouns indeed may be assigned two genders or that one agreement is preferred by native speakers. The data collected would give us a new insight into the participants' judgments of the acceptability of different gender agreement patterns.

8.7 Conclusion.

As presented in this paper, Polish hybrid nouns are problematic from many points of view. From the theoretical point of view, these nouns lack a consistent name and definition. From the language usage point of view, native speakers appear to find the gender assignment for hybrid nouns somewhat problematic. Despite the fact that even dictionaries state that these nouns have two genders, it seems that formal agreement, i.e., an agreement based on the morphology, appears to be chosen as frequently as semantic agreement.

If asked specific questions about the usage of hybrid nouns, native speakers normally cannot judge the acceptability of the structures. This is why ERPs may be used to check how the brain reacts to different gender agreements

used with a controller hybrid noun. In this way, the question mentioned in the introduction – is grammatical gender semantic or morphosyntactic – may be, at least, partially answered.

8.8 References to Chapter 8 (Also included in the main bibliography at the end)

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CHAPTER 9

9 CONCLUSIONS, LIMITATIONS AND FUTURE WORK

In this chapter, the main findings of the studies will be summarized and the implications of these findings will be highlighted and discussed. The limitations of the empirical studies found in Chapters 4, 5, 7A, 7B and 8 will be reported and some suggestions on how these limitations could be overcome in future research will be offered. Further suggestions for prospective work in the area of grammatical gender in translation studies, and sociolinguistics will follow.

9.1 Summary of Findings

If the grammatical gender of the words we use shapes, to some degree, the way we perceive the world, the gendered conceptualizations of notions such as death, for example, could be relatively strong. The question that was investigated is whether conceptualizations that do not agree with such images would be rejected. In Chapter 4 we asked if Polish readers would be able to accept Death as a masculine character while reading the translation of Terry Pratchett's *Discworld* – a marked departure from their language's feminine personification of the concept. While we found that individual speakers and different groups of speakers had specific preferences, the main result of the study was that asking any questions that refer to death evokes emotional responses, instead of purely linguistic assessments. While Guthke (1999) devotes his entire volume to the investigation of the gender of the personifications of death in art and culture throughout the centuries, our study appears to add one more possibility to be considered: perhaps for some language users the contemporary image of death is neither male nor female. For these speakers, death is genderless or it resists personification.

To eliminate the emotional factor, in the next study (Chapter 5) we looked at translations of the word *death* in contemporary popular literature texts. Analyzing these texts led to the conclusion that there are two different interpretations of the word *death* – the metaphorical one (to make it easier to follow the text, we referred to this understanding using capital letters – *DEATH*) and the physiological one, i.e. the end stage of life (that was referred to as *death* in the article). These two understandings correspond to two different mechanisms for gender assignment. The physiological *death* will assign gender that complies with the morphophonology of the language, thus in Polish it will assign a feminine gender. However, the metaphorical understanding of death (*DEATH*) may be considered a kind of a hybrid noun, in the sense that it may take the agreement imposed by the natural gender attributed to the conceptualization. The attribution of natural gender is culture specific and may, but does not have to, be consistent with the grammatical gender of the noun. Therefore, male *DEATH* in Polish, as was the case with the character in Pratchett's novel, may assign masculine gender to its agreement targets.

As for the relationship between language and thought, some brain imaging studies seem to prove that the brain processes real-life information in a way that is not affected by the language, as illustrated by Honey, Thompson, Lerner & Hasson, (2012) who used fMRI to investigate reactions to a Russian narrative played to Russian native speakers and its translation presented to English native speakers. The reactions that were recorded were similar, despite the differences between the languages. Thus, in light of these findings, the strong Whorfian view (Whorf, 1956) seems to be incorrect.

However, the results of our studies, particularly the strong relationship between the grammatical gender of a word and a natural gender for the conceptualization that we observed in the case of death, are consistent with the findings of, among others, Boroditsky (2000, 2001), Boroditsky, Ramscar &

Frank (2002) and Konishi (1993) and they suggest that languages may shape the way the world is perceived and conceptualized. These behavioral studies are supplemented with a recent ERP investigation in which one effect of grammatical gender on categorization has been demonstrated (Boutonnet, Athanasopoulos, & Thierry, 2012). All things considered, it appears that the connection between the grammatical gender system of the speakers' native language and the way they conceptualize the world is profound and requires further, preferably interdisciplinary, research.

The investigations of grammatical gender in translation, presented in Chapters 7A and 7B, led to a number of tentative conclusions. First of all, it was observed that grammatical gender is much more problematic than it may be intuitively assumed. For instance, Nissen (2002) analyses problems in translating grammatical gender when ideology is present in the text, as manifested among others by problems with social gender (the assumption that some nouns are "generally male" – e.g. doctor). . The findings of our studies, on the other hand, suggest that even if the ideology connected with grammatical gender is not considered, differences between gender systems prove to be puzzling for non-professional translators. Moreover, if one looks at translation only as a product, one would miss the extent of the "struggle" that translators go through before they settle on a solution. Even when they translate into their dominant language, novice translators are still prone to mistakes that will influence the overall assessment of the target text in a significant way. The analysis of the typing log files revealed that the participants were not able to use more professional translation techniques that they had acquired in the course, and they seemed to continue to search for synonyms on the level of dictionary semantics, not encyclopaedic semantics (Langacker, 2008). Therefore they were assuming – often wrongly – a one-to-one correspondence of words in German and English. This may be one of the reasons why they could not escape copying the gender

system of the source text in many instances. Thus, it seems that attention given to grammatical gender should be increased in translation training, even if only for the reason that it seems to supply analytical tools to demonstrate to novice translators that translation should be approached at the conceptualization level, not at the word level. The study also emphasizes the need for the triangulation of data in translation studies, by showing that the comparison of two texts – the source text and its translation, even though leading to many compelling observations and theories (e.g. the analysis of the translation of Onegin by Nabokov 1955/2003), does not help to understand the *process* of translation. The findings of the studies in Chapters 7A and 7B thus constitute an attempt to add to the understanding of what happens between the comprehension of the source text and the production of the target text, complementing the results of numerous studies by, among others, Jakobsen (2003, 2011), Dragsted (2005, 2012), Malkiel (2006), Immonen (2006, 2011), Tirkkonen-Condit et al. (2008), O'Brien (2006), and Munoz Martin (2009).

The problem of hybrid nouns in Polish (Chapter 8) was clarified only in so far as terminology and their definition by considering characterizations of these nouns proposed by Corbett (1991) Doleschal (2000) and Herrity (1983). In terms of their gender properties, they remain quite puzzling. Surprisingly, they have not as yet attracted notable attention in the literature.

The search in the corpus of Polish texts (the National Corpus of Polish) and texts on the Internet confirmed significant inconsistencies related to the assignment of grammatical gender, while the Translog study proved inconclusive. On the other hand, the irregularities in gender assignment that were observed proved that the problematic character of these nouns should be further investigated. What this study also achieved was the illustration of why linguistic problems related to language and cognition should be approached in a more interdisciplinary manner. Finally, this study shows how grammatical gender and

the social perception of linguistic categories constitute a dynamic and evolving process. This problem will be further elaborated in the final section of this chapter.

9.2 Achievements and Limitations of the Empirical Studies

9.2.1 Achievements

This thesis represents an attempt to look at the research questions related to grammatical gender and translation through a *cognitive* lens – as defined in section 1.2. As summarized in section 9.1, the findings of the studies add to the existing knowledge about the complexities of the grammatical gender of the personifications of concepts, the assignment of grammatical gender in the translation process and the nature of hybrid nouns. What can be considered its main achievement, however, is creating and applying a cognitive framework for investigating the translation process in general and questions connected with grammatical gender in particular. Not only did the studies included here involve a shift in theoretical perspective, but they also provided a much needed triangulation of data to be used in the investigation of the translation process, something that is usually lacking in translation studies. The work also succeeded in outlining an interdisciplinary research paradigm for the investigation of hybrid nouns which adds a valuable perspective to the field. Finally, the thesis includes significant clarifications of two concepts present in the literature: the cognitive translation framework (Chapter 6) and the definition of hybrid nouns (Chapter 8).

9.2.2 Limitations of empirical studies

Although the thesis in general and the empirical studies included in Chapters 4, 5, 7A and 7B in particular succeeded in answering some of the research questions posed in the introduction, the work included herein is not without limitations. This section summarizes the most important methodological problems encountered in the empirical investigations.

9.2.2.1 Limitations of the study of death in the translation of Discworld

The rationale for the choice of a survey as the research tool for the investigation summarized in Chapter 4 was that we would be able to assess the level of acceptability of the translated fragment. However, the tool was only partially suitable for the task as we did not take into account that our participants' responses to linguistically motivated questions would include various extra linguistic parameters. For example, the fact that many young Polish participants reject any personification of *DEATH*, regardless of its grammatical or "natural" gender influenced their responses. Contrary to what we expected, the qualitative data, such as the answers to the follow up questions and comments, offered more insights into what we had thought would be a simple question of linguistic acceptability. Thus, it can be concluded that conducting semi-structured interviews on the basis of chosen sentences is likely to offer a better understanding of the level of tolerance that different participants have to the personification of a concept that takes a gender inconsistent with the grammatical gender of the word in their language.

In spite of the limitations reported above, the investigation succeeded in demonstrating that the grammatical gender of concepts, such as *death*, is a multilayered issue that has to be approached not only from a linguistic

perspective. What is more, the findings of the study allowed the investigators to make some generalizations that can be used in future investigations, as described in section 9.3.

9.2.2.2 Limitations of the investigation of grammatical gender and the translation process

The studies summarized in Chapters 7A and 7B gave very interesting insights into the decision-making involved in translating grammatical gender. However, there are still many problems with the research design. First of all, since the Translog data analysis, especially the analysis of pauses was based on subjective judgments, the reliability of the findings may have been affected. What is more, one may claim that the breaks that were included in the analysis were not informative, as sometimes they may not have been connected to the experimental task *per se*. It is perfectly possible that participants may have been occupied with something other than processing the text at the time or may have been distracted. Moreover, as observed by van Someren, Barnard & Sandberg (1994, p. 21), in retrospective TAPs "[participants'] memory is guided by their knowledge of the result." Thus the tool, while eliminating issues that are connected with traditional TAPs, added the suspicion that the participants simply verbalized their recollection of how they achieved their solutions to translation problems, and that the decision making process may have been absent in their protocols.

In conclusion, regardless of the drawbacks of the chosen methodology, the use of Translog and retrospective Think Aloud Protocols in the study of the translation process allowed us to achieve the triangulation of data that is usually missing in translation studies.

9.2.2.3 Limitations of the Translog study of hybrid nouns

In the study of hybrid nouns an attempt was made to supplement observations and native speakers' intuition with experimental data by applying Translog to the dictation task. However, this experiment resulted in limited conclusions because the measure turned out not to be sensitive enough for the processing of gender ambiguity. It was observed that the participants concentrated predominantly on the orthographic side of the task and the content of the text being dictated seemed to be irrelevant for them. It seems that the nature of the task – dictation – was strongly associated with spelling by the participants and this affected their ability to see any other issues in the dictated texts. Nevertheless, it seems that native speaker's intuition, the collection of data produced by native speakers, and the analysis of the language corpus seem to be sufficient to draw conclusions on the complex system of gender assignment in Polish hybrid nouns.

9.3 Future Work

The main goal of two articles – Chapter 6 and Chapter 8 – was to demonstrate how the interdisciplinary approach might help to answer questions that could not be answered successfully by traditional translation and linguistic research. Both chapters include fairly detailed proposals for future studies. Chapter 6 suggests studies on gender and articles in the context of translation, while Chapter 8 proposes using an Event Related Potential methodology in the exploration of assignment of grammatical gender to hybrid nouns. Even though there are some methodological challenges for the planned EEG study – especially a need to create at least 50 trials – there is a clear need for involving this type of tool in future research.

In the study on the acceptability of the translation of *Discworld,* we noticed that first generation Polish Canadians did not reject foreign conceptualizations of *Death,* while second generation Polish Canadians constituted the group that used their heritage language in the most prescriptive manner. Thus, in future studies, it would be valuable to target such groups of participants but to extend the study and to investigate other gendered concepts and their perception, as well as to include larger groups of participants to strengthen the conclusions. The investigation of other problematic words (for example, *war*, *sin*, *love*, *fatherland*, and *freedom*) may constitute a valid follow-up to the study. Additionally, because these words are likely to evoke emotional reactions (similar to those for *death*) semi-structured interviews may offer more insightful findings. It may also be interesting to include other languages, for example German, Russian or French in this investigation, and compare and contrast these findings with those of Polish. The assignment of grammatical gender in these languages is varied enough to warrant a study. Such a study would have to be interdisciplinary in nature as it would involve concepts that are often central to the culture and history of the respective national or linguistic groups.

Cognitive linguistics, which constituted the basis of the studies included in the thesis but was not applied as a research framework in the present thesis, may offer tools to explore the issue of the personification of death in more details. Using the example of the analysis of the metaphor of the Grim Reaper given by Fauconnier and Turner (1998) within the framework of conceptual integration (Blending), in the context of translation, exploring the metaphorical personifications of death (e.g. *śmierć zagląda w oczy* 'death is looking somebody in the eyes,' *śmierć depcze komuś po piętach* 'death is on the heels of somebody') in the target language and the source language would offer a deeper understanding of the nature of the personifications of death in the two respective languages and cultures.

The investigations of grammatical gender in the translation process has generated new questions to be pursued in subsequent studies, since, as acknowledged by Séguinot (2000) "as often as studies are used to test hypotheses about translation or interpretation, new hypotheses emerge" (p. 141). Some suggestions for future research included in Chapters 7A and 7B involve the use of an unfamiliar source text and working with different language pairs. It was assumed that a familiar fairy tale ("Snow White") would allow the participants to be guided by their knowledge of the plot rather than by their understanding of the text to be translated. By using subjects who are speakers of languages with more elaborate gender systems than English as translators, we might be able to ascertain whether those systems interfere with each other in the process of translation. What is more, recruiting participants with more advanced translation skills and outside a graded class context is desirable. However, the most valid improvement of the study could be offered by adding eye-tracking data to the recordings of the typing process. By following the gaze of the translator across the text on the computer screen, eye tracking would add much needed information of how the source text was processed.

The paradigm developed in this thesis for the investigation of grammatical gender in translation has already been used in the investigation of the process of translation of languages that have different word order – Korean and English (Kim, 2013). It may therefore be useful in the study of other linguistic aspects in the translation process, for example, tense, aspect or articles.

It would also be interesting to investigate the processing of grammatical gender during oral translation (interpretation), especially simultaneous interpretation, and to add the findings from such studies to the results of this thesis. To be more specific, in the context of time pressures associated with simultaneous translation, mistakes and slips-of-the-tongue would provide valuable data on how two gender systems interplay in real time – information that is

missing in the Translog studies, since the researcher can only guess at how the participants decided upon the target text that was typed.

Finally, an aspect of grammatical gender analysis missing in the present thesis is the challenge of translating grammatical gender in some languages in the context of the new socio-cultural reality such as political correctness, gender specification strategy for the names of professions and political positions, and the translation of LGBTQ literature (some preliminary research conducted was presented in Drzazga, Radišević and Stroińska, 2012 and Stroińska, Drzazga & Kurowska, 2013).

9.4 Conclusions

This thesis asked and attempted to answer some preliminary questions with respect to the aspects of assigning grammatical gender and the process of translation. These questions included 1) the nature of the relationship between grammatical gender and cultural conceptualizations, 2) grammatical gender in the translation of popular literature and in the translation process *per se*, and 3) the assignment of grammatical gender to Polish hybrid nouns. The formation of a new approach was postulated by using a synthesis of existing frameworks. This new paradigm was used to address some of the above mentioned questions, as well as to suggest future experiments. Not only did this approach add a valuable interdisciplinary perspective to the study of grammatical gender, but also, when put into practice, it allowed for the triangulation of data thus making the results of the study of the translation process more reliable.

However, since this approach is new, the clichéd sentence "more research is needed" seems to be particularly accurate in the case of researching grammatical gender in a cognitive and experimental framework.

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