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## EQUIVALENCE IN SPECIALIZED DISCOURSE: INVERSE TRANSLATION OF BULGARIAN MEDICAL RESEARCH ARTICLES

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**Abstract:** Research discourses have accrued significant standing and are associated with power in academia because of the control they provide over social environments. These discourses, though, are mediated to a considerable degree by language and the different forms of surface realization it offers. However, one peculiar thing towers above all – English is the lingua franca of the academic world and any attempt at bypassing the role and power of the former is doomed in advance. It is not simply the sheer number of publications in this language but the influence it exerts, as the most prestigious world platforms for knowledge proliferation such as Web of Science, Scopus, databases and citation services e.g. PubMed, are in English. Hence, the considerable effort on the part of the nonnative English users (researchers included) to master the language. So, in order to further their careers scholars throughout the scientific world write in English and if necessary translate their work into English. This is perfectly valid for the medical discourse and especially for authors of medical research articles (MRA). On the other hand, directionality in translation is as a whole, a misplaced and poorly understood concept. In Western tradition, the presumption is that translation should be carried out into the mother tongue or language of habitual use. Yet, inverse translation has been gaining popularity mainly due to market and political reasons. With the rise of English as a global language in politics, economics, science, etc. the sheer number of texts targeting an international audience and the dearth of sufficiently qualified translators - native speakers - made it inevitable that the previously held presumption -that translation should be into one's mother tongue - was untenable. Rather, as McAlister (1992:297) argues, it is competency that should be of paramount importance understood as: “transmit(ing) the intended message in a language which is clear and sufficiently correct not to strain the reader's patience unduly”. This paper aims at analyzing the level of equivalence achieved by professional translators whose mother tongue is not English, in rendering Bulgarian language MRA into English. For this purpose a corpus analysis has been applied involving three corpora – one comprised of 50 MRA in Bulgarian and their translations into English and a third corpus of 34 original English language MRA, serving as tertium comparationis. All articles have been excerpted from prestigious journals both in Bulgaria and abroad. The analysis is performed at both lexical and morpho-syntactic levels incorporating as its theoretical mainframe the latest achievements of Translation Studies strategies of dealing with non-equivalence. The conclusions drawn from the analysis are that at lexical level, the established three types of three types of terms- terms proper, specific metaterms and general metaterms require different degree of effort to translate into the target language. At the level of syntax, it has been found that the translations follow more closely the Bulgarian model in terms of tense and voice, while at sentence level, the paper contends that the translators have adhered for the most part to the sentence structure in the original.

**Keywords:** MRA, equivalence, translation, corpus, Bulgarian, English

### 1. INTRODUCTION

Research discourses have accrued significant standing and are associated with power in academia because of the control they provide over social environments. Therefore, analyzing discourse in Simpson's view is “to explore the value system and sets of beliefs which reside in texts; to explore, in other words, ideology in language” (Simpson, 2003:5). In line with these opinions, what Hyland posits, as far as academic discourse is concerned, refers to the latter as “the ways of thinking and using language which exist in the academy” (Hyland, 2009:1, 2016). So, language plays a pivotal role in complex social activities like education, dissemination of ideas and knowledge construction. It would be a truism, then, to say that academic medical discourse is simply a type of discourse or in fact, a combination of several discourses: academic, as in university life there is a typical teacher-student relationship - the teachers are also researchers, who carry out scientific experiments and publish their results in scholarly journals; moreover, on the plane of medicine, most of them are also clinicians, who participate in doctor-patient relationships, etc. Academic medical discourse is all this and much more because the above mentioned complex relationships create additional discourses that are reflected in scientific publications - for example, a course in specialized academic writing in the field of medicine is a meta-discourse because it follows the entire process of creating, verifying and codifying a particular scientific product (a described experiment in a scientific medical article), which has in this case a pedagogical, didactic and methodological value. On the other hand, for other scholars (Biber & Conrad, 2009; Biber, 2019, 2019b), the concept of genre coincides with register with regard to the purpose and situational context, with the exception that genre focuses on the conventional features that are used to

compose a full text within the text variety. An important difference between genre and register is that the first one is associated with the organization of cultural and social goals related to language (Bhatia 1993, Swales 1990); it is tied closely to ideology and authority, while register refers to the situational structure of the immediate context. The perspective of register points to the view of text as language: as the instantiation of a conventionalized, functional configuration of language connected to specific societal situations, viz., variety according to use. The perspective of genre leads to the view of a text as a member of a category: a culturally recognized artifact, a grouping of texts according to some conventionally recognized criteria, or according to specific, culturally defined goals. Thus, genres are categories established by consensus within a culture and may change over time when the circumstances change. In its turn, translation has been viewed from linguistically-based approaches as a transfer of meanings, so that the source text (ST) has to be rendered into the target text (TT) as closely as possible both in form and in content (Catford, 1978). The concept of equivalence is the most central to the field and also the most heatedly debated. Nida's (Nida, 1964) approach outlines the notions of formal and dynamic equivalence, while Newmark's (Newmark, 1981) makes a distinction between semantic translation and communicative translation. Vermeer (Vermeer, 1989/2004) introduced the skopos method and the discourse analysis model, based on Hallidayan sociolinguistics, was proposed by other theorists (House, 1977, 1997, 2015; Baker, 1992). Although each of the before mentioned linguists differs in important aspects from the others, their theories all revolve around the concept of equivalence. Baker's understanding of the levels of equivalence translated into her proposals of elaborate checklists of common strategies for dealing with non-equivalence at word level and above it. Modern approaches to equivalence stipulate that translations should also be analyzed in the context of the receiving culture, so in this paradigm, equivalence can be reformulated as referring to *sets of relationships*, which are marked under a specified arrangement of circumstances, so translation in this way should be considered genre sensitive (Munday 2016). On the other hand, directionality in translation is as a whole, a misplaced and poorly understood concept. In Western tradition, the presumption is that translation should be carried out into the mother tongue or language of habitual use. Yet, inverse translation has been gaining popularity mainly due to market and political reasons. With the rise of English as a global language in politics, economics, science, etc. the sheer number of texts targeting an international audience and the dearth of sufficiently qualified translators - native speakers - made it inevitable that the previously held presumption -that translation should be into one's mother tongue - was untenable. Rather, as McAlister (McAlister, 1992:297) argues, it is competency that should be of paramount importance understood as: "transmit(ing) the intended message in a language which is clear and sufficiently correct not to strain the reader's patience unduly"

## 2.METHODS

This paper analyzes the level of equivalence achieved by professional translators whose mother tongue is not English, in rendering Bulgarian language MRA into English. For this purpose a corpus analysis has been performed involving three corpora – one comprised of 50 MRA in Bulgarian (dubbed Bulgarian language corpus – BLC) and their translations (the corpus being dubbed Translation article corpus – TAC) into English and a third corpus of 34 original English language MRA (dubbed English language corpus – ELC), serving as tertium comparationis. Each corpus is around 100 thousand words. All articles have been excerpted from prestigious journals both in Bulgaria and abroad. The analysis is performed at both lexical and morpho-syntactic levels incorporating as its theoretical mainframe the latest achievements of Translation Studies strategies of dealing with non-equivalence. We have used as theoretical mainframe Halliday's (Halliday 2002) systemic functional grammar, together with Baker's (Baker 1992) strategies for dealing with non-equivalence.

In discussing the lexical items that characterize MRA, the focus is not laid on terminology proper, because this is outside the expertise of a nonprofessional, as is any linguist. What is more, a significant part of all medical terms in Bulgarian and English are derived from Latin and lexically and morphologically adapted to the respective language word stock. In the achievement of a high degree of textual coherence and cohesion, and in fulfilling the functional objectives of the IMRD sections, the study analyzes first the so-called high frequency lexical units - nouns, verbs, adjectives, adverbs, prepositions, conjunctions in the original corpora, and then makes a comparison with the respective features of the translation corpus. We have also identified the main tenses and voice used in the articles, as well as their sentence structure.

## 3. RESULTS AND DISCUSSION

On the lexical level what matters are the degrees to which the three fundamental concepts of terms proper, specific metaterms and general metaterms (Mavrodieva and Tisheva, 2014) qualify for linguistic and translation technique interpretation. Terms proper are easy to identify and render in translation for two reasons: first, most of them are English loan words and of Latin origin, and second, any professional translation of medical text is (at least)

consulted, if not translated, by medical professionals, who know the field well. With specific metaterms (non-specialized vocabulary, but typical for the discourse parlance) the problem is more complicated, because the former are inextricably intertwined with co-text and context which presupposes linguistic knowledge of specialized discourse. In view of that, special metaterms are those words peculiar to their field, ie. *patients* in medical discourse. As for general metaterms, although they look like (and actually are) everyday speech words, they could be considered special to a given discourse on account of two reasons. First, the frequency they appear in a given text stretch is of utmost importance, as the more a given lexeme frequents a text, the more valuable and inseparable it is. Second, general metaterms are unexpendable when it comes to above-the-word level of textual organization - in achieving cohesion and coherence of a text. That is why, we can claim that the verb *report* is a general metaterm in MRA, as it meets both abovementioned conditions. We have come across several areas of non-equivalence in our corpora:

- Culture-specific concepts – Bulg. *poliklinika* – Engl. *diagnostic consulting centre*;
- The source/target language concept is not lexicalized in the source/target language – Bulg. *zabolyavane*, Engl. *inpatient*; Bulg. *anamneza* – Engl. *medical history*
- The source and target languages make different distinctions in meaning – Bulg. *kontingent* (klinichen kontingent) – Engl. *subjects of study*; Engl. *assess, evaluate, estimate, etc*/ Bulg. *otsenyavam*;
- The source/target language lacks a hypernym/hyponym – Engl. – *facility* (hypernym) - Bulg. – various hyponyms, Bulg. *otsenyavam* (hypernym)/ Engl. *assess, evaluate, estimate, appraisal, assay* – lack of hypernym
- Items in the source and target languages differ in frequency and purpose of using specific forms – Engl. *report* as used to refer to other studies/ not used as much in BLC articles
- Use of loan words in source language - medical genres resort to many adapted loans from English - *persistiram, prevaliram*, etc. These may happen to be false friends in translation as they may have different distributional properties, or in other words, are not always used in the same way in English even in MRA genre.

Baker (Baker, 1992:17-41) suggests a number of ways of dealing with these problematic areas. We'll give examples of only those that are actually used frequently in the article translations. The most highly used strategy for dealing with non-equivalence is translation by paraphrase using a related word: eg. *teza- hypothesis, proyavayvam se/present, korespondira – is proportionate to, da se podobri/ major improvement*. Omissions are sometimes exploited too (accompanied by paraphrase), when certain words in the ST are not fundamental to the overall meaning of the concrete message – *dylgotraen hod na razvitie/ (translation) develop slowly*. Another similar strategy involves cases where a source/target language concept (including terms proper, specific and general metaterms) is not lexicalized in the source/target language – eg. *observed-expected lung-to-head ratio (O/E LHR) / izmervane na otnoshenieto byal drob - obikolka na glavata (LHR) i ustanoveno/ochakvano syotnoshenie ((U/O syotnoshenie)*. When the source and target languages make different distinctions in meaning, translators go to great lengths to use the appropriate hypernym or hyponym. For instance, the Bulgarian verb *otsenyavam* is used in all text stretches in Bulgarian language corpus, while in English its equivalents are different verbs - *assess, evaluate, estimate, appraise*.

General Present Tense prevails in the Introduction, in BLC, while in the ELC enjoys a greater diversity of tenses. TAC follows closely BLC with the consistent use of Present Simple. Apart from General Present Tense, Past Simple (Minalo Svarsheno) are the main tenses in Methods in BLC. Past Simple and Past Perfect are the tenses most often used in ELC in Methods. In TAC Past Simple and sometimes Present Simple are used to explain properties and characteristics of substances, while the descriptions of procedures are made in Past Simple and sometimes in Present Simple. Probably due to a lack of explicit language requirements by the editorial policies of the journals, the General Present Simple and Past Simple (Minalo Svarsheno) are used interchangeably to describe processes, data descriptions and outcomes in Results in BLC. TAC uses Past Simple especially in describing procedures, participants, data, which is closer to the tense scheme in ELC. ELC in its turn uses the Past Simple in both describing the participants and the procedures, while Present Simple is reserved only for presenting the tabular and graphical nature of the information. The verb tenses in the Discussion section of BLC include General Present Tense, when presenting scientific facts and literature reviews, Past Simple Tense (Minalo Svarsheno) - in describing one's own results, usually different from the conventional ones, and in presenting one's own procedures- the Progressive Aspect - Past Continuous (Minalo Nesvarsheno) Tense. In ELC, the tense system consists of Present Simple, Past Simple and Present Perfect. Present Simple is used to make assumptions, hypotheses, recommendations, opinions, to compare with other studies, while Present Perfect is used when presenting own results. To present well-established facts, concerning the topic of research in TAC, the translators mainly use Present

Simple, while presenting own research is dealt with by the use of Past Simple – procedures, data collection. Present Perfect is dedicated to referring to well-established previous research.

Active Voice is predominant in BLC, especially in Introduction, while Passive Voice is employed when putting forward the issues discussed (both broad and narrowly focused). In ELC, Active Voice is used to a greater extent in this section, which makes the texts sound more dialogical. Passive Voice presence is limited to presenting information about a research problem and unresolved issues. TAC mainly follows the BLC articles in respect to Voice. The use of Passive Voice is the main choice of the authors in Methods and Results in BLC, ELC though uses a combination of the two voices with Passive in presenting the results and data obtained, while Active Voice - in the description of the sample. Passive Voice is mainly used in TAC to discuss main results and procedures, while the Active Voice in reporting unexpected results and data. Passive Voice is also used predominantly in Discussion, although when presenting the results of previous studies by other authors, the choice is Active Voice.

The syntactic patterns in the corpora mainly involve the use of 1) Expanded simple sentences with heavy complementation and modification and the use of the *predicative (skazuemno opredelenie)*; 2) Compound and compound-complex sentences; 3) Complex sentences with subordinate clauses of various types of dependent clauses. The translation variants at syntactic level also follow the Bulgarian syntactic patterns with the necessary obligatory changes when the English syntactic system requires it. Although the classification of the sentence structure in English grammar differs to a certain extent from that in Bulgarian grammar, the basic types of sentences are similar - simple sentences with heavy complementation and modification, compound sentences, compound-complex sentences, complex sentences with at least one main and one subordinate part. One tenet that draws specific attention is the prolific use of *na-formi (nesyglasuvano opredelenie)* in all sections of BLC texts. In English, these mostly (but not only) genitive NPs are less frequent. They have been rendered in various ways in the respective TAC text stretches. In most cases, the translators have dealt with this idiosyncratic syntactic feature of Bulgarian academic discourse and more specifically - medical discourse, searching for equivalents.

#### 4. CONCLUSION

In terms of the various levels of analysis, we can state that:

- At word and phrase levels, the comparative analysis shows that the translation variants of Bulgarian language MRA share more similarities than dissimilarities with original English language MRA, published in high profile impact factor journals;
- At syntactic level, including tense, voice, word order and sentence type, the translations are closer to the Bulgarian originals, save for the mandatory changes required by the target language syntactic system;

These short conclusions may sound too categorical that is why they should come with the caveat that we ought to bear in mind several conditions. First, our analysis is based on the understanding that all points of reference between the corpora are on a cline, that is, there could be no sharp boundaries drawn in terms of translation. Second, the type of translatory activity is specialized translation, which does not give a translator great leeway in choosing their translation strategy – although translators work in close collaboration with authors, the field of MRA and the genre format are so highly specialized that serious alterations to the text is virtually impossible to make. Third, we believe that what counts as important in this area is the holistic approach, the overall impression a reader obtains from an article is not the sum of linguistic features, rather it is global message that an article sends.

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