PH.D. THESIS SUMMARY

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Key words: translation studies, LSP, technical texts

The aim of the dissertation is to verify the hypothesis that, due to the informative function, technical translations frequently incorporate oblique translation techniques, and they also tend to differ from the source texts in terms of surface structures. The structure of the dissertation encompasses five chapters followed by conclusions and full analysed texts in the appendix.

The aim of the first chapter is to discuss linguistic aspects of technical texts, and the language of technology in general. In order to specify what a technical text is (and is not) the discussion focused on the notion of text itself as well as different text types. An important point that was made was that texts usually exhibit features of more than one type; in the case of technical documentation for example, a text might also include features of legal or marketing texts. After discussing the abovementioned issues the chapter described the notions of style and functional styles, which are relevant for describing distinctive features of technical texts. Starting from the notion of style and after explaining what a functional style is, the chapter then elaborates on the term that derived from the theory of functional styles, namely LSP, and then moves on to discuss distinctive features of the scientific style and explains the difference between the styles of exact sciences and technical texts. An important point here is that although sometimes technical and scientific texts are put into one category, they should be treated as two separate types of texts. Another issue is that some texts may be at the boundary of the two categories and exhibit features of both scientific and technical styles. The consecutive sub-chapters were an attempt to define what a technical text is and to explain closely related notions of technical communication and technical writing; after that a typology of technical text as well as division of target recipients and addressors of technical texts were provided. That technical

texts encompass a wide variety of different text types and with regard to target recipients (and addressors) one should realize that technical documentation may be designed for different target groups as well as written by different authors, both specialists and non-specialists (e.g. marketing materials). With regard to the lexical level a detailed description of specialized vocabulary that appears in technical texts is provided with its levels and distinctive features. An important point that was mentioned was that technical terms are often borrowed from general language and assigned with special meanings, on the basis of different types of similarity, e.g. similarity in shape. Another distinctive feature of technical texts that was described was the occurrence of acronyms that are applied for the purpose of language-economy (e.g. AC). Last but not least, the so-called formal languages and visual codes described in the last part of this chapter are of crucial importance in technical texts; they co-occur with descriptions in natural languages and are an inseparable part of technical texts. As regards visual codes, an important point is that they separate text fragments or can comprise a substantial part of a document in terms of space.

The aim of the second chapter is to discuss technical translation both from a theoretical and a practical perspective, relating it to translation theory and elaborating on its nature and distinctive features. The first subchapter discussed the issue of the applicability of general translation theories to the translation of technical texts, showing that technical translation does not require a separate theoretical framework but can be discussed using already available theoretical models. Additionally, each theory puts emphasis on different aspects of technical translation (e.g. preserving and changing text function, notions of equivalence or meeting the requirements of the text recipients). The next issue concerned cultural elements in specialized texts. It provided some evidence that cultural elements are present not only in the language of literature, but are also a vital aspect of specialized texts. Moreover, cultural elements may appear on all text levels (morphological, lexical, syntactic and pragmatic). An interesting point that was mentioned was that of metaphorical terminology and technical terms incorporated from such 'remote' areas as, e.g. mythology. The following discussion concerned translation techniques and strategies. It was mentioned that although the two notions are sometimes confused and used interchangeably one should bear in mind that the term translation strategy refers to whole texts whereas translation techniques refer to particular ways of rendering a given element within a text. It can be stated that there is a strong tendency, in technical translation, to apply domesticating and free strategies of translation. Although direct translation techniques are used more frequently, technical translation applies a wide variety of different oblique

techniques, such as transposition, modulation, adaptation, explicitation etc., to overcome different translation problems. Although literal translation is the most common technique of translation of technical texts, it is used less frequently than in comparison to journalistic or corporate texts. The next issue concerned the occurrence of parallel structures and the application of the so-called Iconic Linkage to express text elements of texts that are similar in meaning. It was found out that parallel structures are a distinctive features of technical texts (especially in case of manuals and user guides) and the occurrence of repetitive structures is regarded as a desirable feature of technical texts. Additionally, by using parallel, repetitive structures the process of text decoding is simplified and it is easier for a text recipient to perform a particular procedure. The next issue that was discussed was that of the process of technical writing and technical translation and the role of a translator. It was stated that a lot of parties are involved in the whole process of text production and then subsequent translation.

The fourth chapter is aimed to compare and contrast Polish and English parallel technical documentation, on the basis of predefined linguistic criteria, presented in the first chapter. Altogether, the chapter includes 16 texts (8 pairs) of different length, type and function; these include specifications, manuals and product descriptions. The exact results of the analysis for the analysed pairs of texts are presented in tables at the end of each subchapter and the full texts that were analysed can be viewed in the appendix section (documents 1-16). After comparing the analysis results for each text pair it can be stated that although Polish and English technical documentation is not very different at linguistic level, there are certain variations that result both from language inherent features as well as stylistic issues in the two languages. With regards to syntactic structure it can be noticed that Polish makes use of simple sentences more frequently than English – in five out of eight pairs of texts there were more simple sentences in Polish than in English, and only in one pair it was the other way round (in other cases the ratio was comparable). In English, on the other hand, complex sentences appear more often than in Polish (in five pairs of texts there were more complex sentences in English texts). An important remark, however, is that the total number of sentences and their length was relatively similar. It also turned out that although Passive Voice is generally applied more frequently in English, in the case of technical documentation Passive Voice constructions occur in the two languages in the same amount (the total number of passive constructions was very comparable). In all Polish texts, however, Active Voice constructions were slightly more frequent so if we compare the ratio of passive and Active Voice constructions it turns out that it is different in the two languages. Metaphorical terminology also appears in the two languages with similar frequency;

in most cases, however, the equivalent terms are based on different metaphors (e.g. the term *bucket* rendered in Polish as *łyżka*– 'spoon'). Additionally, in some cases metaphorical terms in one language have equivalents in the other that are not metaphorical (e.g. *wersja nabojowa* which is rendered in English as *cartridge version* and can be literally translated as 'bullet version'). There were just a few cases of intensifiers in the analysed texts and in both Polish and English they were found to be rare; there are, however, more intensifiers in Polish parallel texts than in English ones. Gerund forms and nominalizations were found to be very abundant in all texts, but a key point is that in Polish these elements are more frequent than in English (altogether in six Polish texts there were more gerunds and nominalizations than in English parallel texts, and it was the other way round only in the case of one English text; in one pair of texts the ratio was comparable). Infinitives were also found to appear more frequently in Polish texts (in four pairs of texts infinitives were more numerous in Polish documentation and it was the other way round only in the case of two English texts; in two other pairs of texts the numbers were comparable). This is due to the fact that in Polish some instructions are given in the form of infinitives (as sentences without a finite verb), whereas in English imperative forms are applied. Adjuncts were found to be crucial and very frequent in all texts, but they were slightly more common in Polish parallel texts (in four to be precise; in the case of two pairs of texts the ratio was comparable, and in two English texts there were more adjuncts than in Polish parallel texts). No visible difference was observed in terms of the frequency of use of collocations in Polish and English; an important point, however, is that they appeared more frequently than it was expected in that type of texts- in each text there were at least several instances of collocations. Phrasal verbs, not surprisingly, were found only in English texts. This is due to the fact that they are a characteristic feature of English and do not appear in Polish. Instances of Iconic Linkage were found in several texts (manuals and instructions) and appeared more frequently in English than in Polish. Last but not least visual codes were found to be a vital part of technical documentation, and, what is important, they occur in a great variety of different forms. As it can be seen in the appendix, in some texts visual elements comprise half of the text space. What is also important is that in some text types, such as specifications, information is provided in tables and charts with text in the form of nominal sentences.

The aim of the fifth chapter is to analyse and compare Polish technical texts and their English translations, using the same criteria as in the previous chapter. Due to the fact that the source texts have already been described, the chapter focused on the analysis of the target texts; additionally it points out different translation techniques used as well as different deviations

and irregularities between the texts. After analysing 8 pairs of source texts and their translations several conclusions can be drawn. In most cases (5 out of 8) the target texts are longer the original ones; only in two cases it was the other way round and only in one case the number of words in both texts was comparable. The number of sentences was similar in Polish and English texts (in two translations and in two source texts it was higher, in other pairs it was comparable). Simple sentences were found to be dominant in most pairs of texts; in three pairs of texts simple sentences were more numerous in the source texts whereas it was the other way round for two pairs of texts; in other cases the numbers were comparable. Thus, it can be stated that simple sentences are a bit more common in Polish technical texts than in their translations, but the difference is negligible (less than 10%). Complex sentences, on the other hand were more numerous in five translated texts and for the remaining three pairs the amount of complex sentences was comparable. Thus, complex sentences were found to be more common in the translations. Active Voice structures were found to be more common in Polish texts (in six source texts there were more Active Voice constructions than in the translated texts and for the remaining two pairs the number of Active Voice constructions was the same). In the case of Passive Voice structures the situation was reversed – in five translations there were more Passive Voice constructions than in the source texts and it was the other way round for one pair of texts; in the remaining two pairs the ratio was comparable. In almost all source texts (7 to be exact) the number of nominal sentences was higher – only in one pair of texts the number of nominal sentences was comparable. Infinitives were slightly more common in the translations (in 4 translations there were more infinitives than in the original texts); only in two cases it was the other way round and for two pairs of texts the number of infinitives was comparable. Collocations occurred in Polish and English texts in a similar amount and no visible differences in the two languages have been observed; there were, however, some significant differences concerning adjuncts and gerund forms and nominalizations: in all 8 pairs of texts gerund forms and nominalizations were more numerous in the translations (in some texts the difference amounted to over 30%). Adjuncts were also found to be more common in English-language texts: in 5 pairs of texts there were more adjuncts in the translations than the source texts, while it was the other way round only in case of two pairs (in the case of one pair the ratio was comparable). Intensifiers were found to be very rare and appeared in only one pair of texts (one case in the source text and two cases in the translation). Metaphorical terms were common in both English and Polish language texts and appeared with similar frequency; a notable point, however, is that in most cases the metaphoric terms do not have metaphoric equivalents and if they have they do not correspond; metaphorical terms have direct metaphorical equivalents in

only approximately 20% of the cases. All texts were found to contain different abbreviations, units and expressions in formal languages that comprise an inherent part of texts but are copied and not translated; such elements were found to be abundant in specifications. Interestingly the Polish language texts apply units and expressions only in the the metric system, whereas in the translations both metric and imperial systems of measurements are provided; this concerns units of length, area and mass.

Considering the ratio of different translation techniques it can be stated that oblique translation prevails in technical translation, and accounts for approximately 60% of all the applied techniques. The only exception, however, are parts of texts provided in the form of a table with terms and corresponding parameters, rather than full sentences. Additionally, literal translation is the most common technique alone applied in technical translation; oblique translation procedures, however, occur in a variety of different forms, the most common of which being transpositions. The translated texts were often not free from grammar mistakes (in certain cases quite basic ones) and in many cases certain data was missing or simplified.

After the analysis of the parallel texts, the source texts and the target translations the following conclusions can be drawn. Technical source texts and their translations differ at different linguistic levels and in terms of their various linguistic criteria. English translations of Polish technical texts resemble more the original texts than texts originally written in English. Moreover, technical translations into English are often not free from mistakes; the reason for that might be simply down to the insufficient proofreading of the target texts, but more research needs to be done to prove that hypothesis. Furthermore, various differences can be observed between source and target texts in terms of their form and that during translation translators frequently make use of oblique translation techniques. The target texts often include elements not present in the source texts, e.g. parameters expressed in different units. Technical texts and technical translations are governed by the informative function which is of primary importance in technical communication; thus, the language form is not of the greatest significance. Therefore, in order to render information in the most precise manner, source texts and their translations might differ with regards to their so-called surface structures. Furthermore, for this reason oblique translation techniques are frequently used in technical translations. It was found that oblique translation techniques account for approximately 55-70% of all the applied techniques, and occur in a wide variety of types. The translation technique that appears most often of all, however, is literal translation. Oblique translation techniques are applied irrespective of the text types (they appear in specifications, product descriptions and

instructions) and subject areas (they can be found, among others, in texts concerning pressure valves, electric motors, construction machinery or home appliances). Last but not least, differences at all language levels (syntactic, semantic, lexical etc.) and in language forms between source and target texts indicate that oblique translation techniques are vital for the appropriate and accurate transfer of information. Thus, when translating technical texts or training students in doing technical translations, emphasis should be put on using these techniques rather than being focused on the rigid adherence to the language form.