Abstract: This paper combines the methodology of corpus linguistics and qualitative research in the domain of translation studies, with the aim to determine the frequency of translation shifts, i.e. the degree of departures from formal correspondence, as well as translation strategies used for the shifts. The parallel corpus consisted of two non-fiction Serbian-English translations from which 5000-word random sample sentence pairs were excerpted: Formulas of Love by Zoran Milivojević and The History of Serbian Culture by a group of authors. Each sentence pair was annotated for translation strategies and structural changes: the annotation scheme distinguished among 8 translation strategies at the word or phrase/clause level (e.g. cultural substitution) and 5 types of structural changes (e.g. voice change), based on Baker (2011). The results show that 22.85% of the source text words get adapted in the target through shifts, which may represent a piece of evidence supporting the Skopos theory.

Keywords: corpus linguistics, translation strategy, translation shifts, parallel corpus, descriptive translation studies.
1. ABOUT THE RESEARCH: GOALS AND THEORETICAL FRAMEWORK

The research revolves around the idea that direct translation, i.e. finding perfect equivalence and formal correspondence, is not possible and that translation will inevitably involve lexical, structural, and meaning- and context-dependent changes that will not affect the intentional purpose of the text, and that the number of these changes is relatively high, or, at least, non-negligible. More specifically, the aim of the research is to identify modifications to the source text which the translator deems allowed and necessary, i.e. translation shifts – understood here to refer to any departure from formal correspondence – and to establish the usual rate of such shifts in a corpus of Serbian-English translations, in terms of the frequency of non-equivalence translation strategies used to render the original meaning in the target language. As such, this small-scale corpus-based research can be a benchmark for larger-scale research, but also a reference point for Serbian-English translation pedagogy.

1. 1. From Formal to Dynamic Equivalence, and then to Translation Shifts

Traditionally, translation was understood to be based on the concept of equivalence (see e.g. Grisay et al. 2007, Ivir 1981, Leonardi 2000 and Nida 1964). However, this has become a complex and somewhat controversial topic in translation studies for two reasons: the cultural and linguistic difference between communities, and the existence of non-equivalent means of transferring the intended meaning. More precisely, on the one hand, obtaining equivalence depends on the existence of corresponding lexical items, terms and concepts in the target culture, and, almost as a rule, it is difficult to achieve due to differences in language and culture systems. Similarly, on the other hand, equivalence is usually perceived as a translation strategy per se, and, as such, it is seen as only one of the means for bridging the communication act obstacles and filling in the very gaps left behind by the lack of an absolute cultural equilibrium. Specifically, Pym (2014) defines equivalence as a problem-solving process employing the means of creating (multiple) solutions and variations of the message conveyed by the source text and choosing the form closest to the target culture, placing the source culture in a secondary position, but not at the core of the message itself.
In order to illustrate the problem of prioritising formal correspondence over natural equivalence and the necessity of translation shifts, Pym (2014: 41) uses the following translation variations of the Spanish sentence “La primera palabra de esta misma frase tiene dos letras.” into English: 1) “The first word of the sentence in Spanish has two letters.”, and: 2) “The first word of the sentence has three letters.”, instead of providing the literal translation “The first word of the sentence has two letters”, as such. Having in mind that the kind of equivalence as easily attainable as the one in the previous examples is a utopia, Hileman’s (1966) take on translation could be used to better describe translating in general. Namely, Hileman (1966, as cited in Munday 2012: 2) states: “You would never know it, but I hate translation more than I hate anything in this world. I am constantly afraid while doing it, afraid that I won’t get it good enough... either not close enough or not strong enough. Or either too close. It is a miserable business, at best always a failure, at worst a disaster”.

Nevertheless, a source language is neither absolutely translatable, nor absolutely untranslatable, but, rather, “more or less translatable”, depending on the limited sets of choices imposed by the target language at each point, and focusing on non-equivalence, or the places in the source text that do not seem to have a correspondent/equivalent in the target text, is what makes this choice-making process superable, needless to say surmountable, all through the means of translation shifts (Catford 1965: 93, Pym 2014: 67). In short, two of the most cited experts on the theory of translation, separated by more than half a century, agree that direct translation and finding equivalents is often not possible, but that translation shifts, i.e. departures from formal correspondence, are often the only option for a successful transfer of the intended meaning, or at least a part of it, from the source text (ST), written in the source language (ST) and understandable in the source culture (SC), into the target text (TT), written in the target language (TL) and suitable for the target culture (TC).

1.2. Translation shifts

As elaborated in the previous section, the message conveyed by the source text is far from being absolutely renderable into the target text, with all its implied nuances of meaning and structure. This, in turn, implies that a certain amount of change, modification and/or divergence from the source is imminent to take place. These modifications of the source text are commonly termed as translation shifts.

More specifically, translation shifts can be defined as a linguistic, register or stylistic change between ST and TT. The term was first used by Catford (1965),
where translation shifts were defined as “departures from formal correspondence in the process of going from the SL to the TL” (ibid. 73). Since 1965, various taxonomies of translation shifts were presented by various authors (e.g. Vinay and Darbelnet 1995), whereby it is important to emphasize that translation shifts can operate at three levels of language: the lexical level, the grammatical level and the discourse level, i.e. the level of the message which refers to the situational utterance, texts and paragraphs. Translation shifts and translation procedures are perceived as mutually inextricably intertwined processes, which strive at transmitting both the intended meaning and the purpose of the source text, whereby translation shifts may be considered the highest degree of intervention in the target culture, and the last tool in the translator’s toolkit that prevent depriving the target language of the intended meaning (Houlind 2001). Having this in mind, the question arises as to the extent the translator can intervene, and what makes the modification of the source text ‘appropriate’: in other words, how far the translator can go in terms of intervening and what the boundaries of freedom in translation are. Unfortunately, there is no consensus on the subject, i.e. on determining the ultimate distinction between what constitutes a ‘good’ and a ‘bad’ translation in terms of rendering the message conveyed by the source language into the target language, constantly having in mind the source and target cultures.

1.3. Translation Strategies: How Translation Shifts are Implemented

The elusiveness of a perfect translation and ultimate equivalence, as well as the necessity of translation shifts are primarily theoretical concepts, while the means of overcoming these problems represent a practical issue in everyday translation practice. With or without full awareness of the elusive nature of equivalence, in both its broadest and closest sense, driven by the need to transfer the information from SL to TL, affected by numerous factors, a practicing translator is constantly using various strategies in their quest for the ‘perfect’ solution. In other words, in translation practice, translators use different tactics to overcome the problem of non-equivalent cultures and language systems: these different tactics are usually termed translation strategies. There are many different classifications of translation strategies and there is even a lack of consensus among different authors on what the differences among translation strategies, translation procedures and translation methods are (for details see the overview of different approaches in Ordudari 2007). At this point, it is crucial to note that, at least in this article, it is assumed that translation strategies are various transference processes which make transla-
tion shifts possible, i.e. transference processes that can be employed when literal or word-for-word translation (which may also be classified as translation strategies themselves) are not possible.

In this research, the classification of translation strategies is based on the classification proposed by Baker (2011), because it fits the scope and goals of the research by being neither too fragmentary (requiring a bigger corpus), nor too general (providing less insight). Baker (2011) identifies eight translation strategies, based on the principles of transferring the intended meaning of the source text in the target text. Translation by a more general word or superordinate implies the greatest freedom of translation, due to the quality of nearly all languages to engage a hierarchical structure of semantic fields. This way, for instance, ‘shampoo your hair’ is translated in Spanish by a more general word ‘wash’ (lavar). Translation by a more neutral or less expressive word is particularly useful in terms of avoiding the unnecessarily evoked meaning present in the case of a literal translation. For example, translating the verb phrase ‘mumbles’ in Italian with ‘suggests’ (Ital. suggerisce) in order to eliminate the negative implication of its closest equivalent ‘mugugnare’. Translation by cultural substitution is a strategy where a culture-specific item or expression is replaced with a target-language item that is likely to have a similar impact on the target reader, in spite of not having the same propositional meaning. For example, ‘the turtles all the way down’ is replaced by ‘a great big pack of cards’, instead of its literal translation, aiming at reaching cultural uniformity. Baker (2011) adds that the freedom of translation by applying this strategy is dependent on the purpose of the translation and the customer. Translation using a loan word or a loan word plus explanation helps avoid repetition and distraction, as the explanation is offered only once. For example, the term ‘shamanic’ is rendered in Japanese by transcribing the word shaman in katakana and adding the appropriate suffix. Baker points out, however, that the strategy is dependent on the target language tolerance of loan words, where Japanese is, for instance, more flexible than Arabic or French. In cases of absence of an equivalent, Catford (1965) offers an alternative to borrowing: an already adopted loan-word, such as the Japanese lexical item ‘kimono’ instead of a ‘yukata’ (a loose robe bound by a sash, worn by either men or women, supplied to guests in a Japanese inn or hotel, worn in the evening indoors or out of doors in the street or a café, worn in bed). Nevertheless, this strategy could also be classified as a cultural substitution, since the term ‘kimono’ is an already established term in English, whereas ‘yukata’ would be a newly coined TL item. Translation by paraphrase using a similar/related word seems useful in cases of frequently dominant difference in the form of the lexicalised items between the
ST and TT. For example, the VP ‘to be related’ is translated as ‘to have a kinship relation’. Translation by paraphrase using unrelated words refers to cases where the TT does not contain a lexicalised item, and, therefore, involves intervention in terms of modification, such as, for example, translating the adjective ‘tangential’ as ‘in a very slight degree which is like touching slightly’. Translation by omission is particularly suitable for rendering the meaning without the unnecessary distractions that would affect the flow in terms of reading, on condition that the problematic word does not carry important information. Namely, sometimes it is more reader-friendly to omit such words, than to clutter the text with additional notes. Last but not the least, translation by illustration is used in case of lacking a TT equivalent related to non-abstract notions, especially in terms of quantity restrictions posed by the TT (Baker 2011: 33-52, 99).

As previously mentioned, it is important to note that the given classification of the translation strategies is by no means the only theoretical representation thereof, nor is it flawless. For example, Baker (2011) fails to acknowledge the cases when translation by a more specific term is employed. In other words, Baker’s (2011) classification should be interpreted primarily as a list of the most common strategies which can be applied by the translator when direct translation is not possible, i.e. when there is no equivalence between the languages and/or cultures. However, the sheer number and diversity of theories about translation strategies, procedures and techniques makes it extremely hard to list and explain them in a single paper, let alone to use them and test them all in a single research study – primarily due to the time-consuming process needed to manually analyse and annotate the corpus in detail. This is the reason as to why this research employs only Baker’s (2011) classification of translation strategies: not only does it seem to fit both theoretical and practical approaches to translation, but it has also withstood the test of time as it has remained virtually unchanged in all editions of Baker’s book, including the latest one at the time when this research was conducted (Baker 2018).

The following section provides details on how this theoretical approach was methodologically implemented in the actual research.

2. RESEARCH METHODOLOGY

The research employed corpus-based methodology in the form of two small annotated parallel corpora with a total of 5088 words in the Serbian parts of the corpora and 6312 words in the English parts – i.e. a total of 11400 words in the two parallel corpora. This methodological approach was chosen as a best fit for
the goal of this research, which was, as outlined in the introductory sections, to provide insight into the frequency and types of translation strategies used by the translator to effectuate translation shifts and transference of the intended meaning of the selected pieces of text in the target language, while achieving adaptation in accordance with the particularities of the popular science genre in the target culture. From that perspective, a parallel corpus may be claimed to represent the best source of insights, as it provides authentic samples of the translation process. An additional benefit of the corpus-based approach is that the annotated parallel corpus may be used outside the research domain – in translator training – as it provides direct insight into the process of translation from the point of view of translation strategies employed in each sentence in the corpus.

The following subsections provide details on the criteria and procedures used in sampling, corpus compilation and corpus annotation.

2. 1. Sampling: choosing representative text samples for corpus compilation

The primary criterion in choosing text samples for the parallel corpus was to find a small set of representative samples of Serbian source segments and their translations into English. In other words, the main consideration was the sample size and the representativeness. The number of samples needed to be small because of the pilot nature of this research, which is not an optimal solution, but can be offset by giving enough consideration to representativeness. More details about the sample size are given in the following subsection which deals with corpus compilation.

In terms of representativeness, after careful consideration it was decided that samples should belong to non-fiction, because the non-fiction genre may be claimed not to allow translators a lot of ‘poetic license’ in their translations – i.e. non-fiction does not warrant overly creative translations. Additionally, non-fiction can be claimed not to be as restrictive in terms of permissible translation strategies as, for instance, user manuals and technical texts – meaning that non-fiction represents the translation “middle-ground” between translations of fiction, on the one hand, and translations of technical documents, on the other. An additional criterion related to representativeness was that the corpus should contain samples of at least two different translators – in order to avoid researching peculiarities and/or idiolect of a single translator.

Another sampling consideration with serious implications for corpus compilation and corpus annotation was the direction of translation. Having in mind that both
researchers are native speakers of Serbian and non-native speakers of English, it was decided that the parallel corpus should contain source language sentences in Serbian and their corresponding translated sentences in English. The reason for this decision was that the source segments in the researchers’ native tongue allowed better identification of subtle nuances in the original communicative purpose.

In line with the representativeness criteria listed above, the Serbian sentences and their translation equivalents were excerpted from the following two non-fiction titles: *Formulas of Love* (Milivojević 2007), translated by Ema Pandrc and Kristina Sudarević (2018, in print) and *The History of Serbian Culture* (Ivić 1995), translated by Randall A. Major. Apart from meeting the representativeness criteria identified above, the choice of these two particular titles was purely opportunistic, as the researchers had both texts available in the machine-readable form thanks to personal connections with the translators and/or authors.

2. 2. Corpus compilation

The selection of sentences for analysis was based on random sampling, where the aim was to analyse approximately 2500 words in each of the two texts from the corpus. The random sampling procedure was conducted in the paper editions of the two non-fiction texts. Once the sentence was randomly selected in the paper edition, it was found in the machine-readable Serbian text, while the corresponding translated sentence was found in the machine-readable translation into English: both the source and target sentence(s) were then copied into an Excel spreadsheet for annotation and analysis.

In terms of the sample size, the threshold of 2500 words per each non-fiction text was chosen as a compromise between the need to conduct time-consuming manual annotation of translation strategies, on the one hand, and the need to have a relatively representative sample of translation strategies in the text as a whole. In line with the predominant practice in translation industry to use at least a 1000-word random sample to assess the quality of translation (‘TAUS 2014), it can be said that the corpus compiled in line with these criteria is sufficiently representative, but, at the same time, does not require months to annotate.

Consequently, in adherence with the procedures and criteria outlined in this and previous sections, two parallel, Serbian-English corpora were created and prepared for annotating the eight translation strategies used for the adaptation of style and register:
1) Corpus #1: 94 translation units (2542 words in Serbian and 3058 words in English, SR>EN ratio 120.31%) from *Formulas of Love* by Zoran Milivojević (2007), translated by Ema Pandrc and Kristina Sudarević (in print);

2) Corpus #2: 70 translation units (2546 words in Serbian and 3254 words in English, SR>EN ratio 129.53%) from *The History of Serbian Culture* (Ivić, 1995), translated by Randall A. Major.

The annotation procedure is described in detail in the following subsection.

### 2.3. Annotation procedure

The annotation procedure was the most important and time-consuming procedure in the research, as it represented the practical process of encoding the chosen theoretical framework and superimposing it over the text samples contained in the corpus. It involved reading both the source text and the target text, with a particular focus on the translated segments of the corpus. That is to say, the translated segments were compared to the source segment in accordance with the eight translation strategies proposed by Baker (2011) for the sake of determining the frequency of usage of the eight translation strategies involved. While annotating, special attention was paid to translation strategies which had the aim of changing the original style and/or register, which are here taken to be the prime examples of discourse-level translation shifts.

In addition to the eight translation strategies, the most frequent structural interventions at the sentence level and beyond have also been isolated and annotated separately: voice change, change of verb, nominalisation, extraposition and reordering/refocusing. These structural changes have been identified as the most common ones in previous studies on translation shifts (Serbina 2015).

Both Corpus #1 and Corpus #2 were annotated and analysed in Excel. Each text samples together with its annotation constituted a separate row with multiple columns: the source text (ST) and the target (TT) were included in two separate columns, followed by a separate column for each of the eight strategies involved, as well as additional columns for structural changes. In each parallel pair of sentences, the translation strategies and structural shifts were then compared and analysed by highlighting the relevant parts of the parallel sentences (bold, italics, single underline, double underline, dotted underline, dashed underline, thick underline and wave underline) and adding numbers in each column for the number of occurrences of each translation strategy and each structural change. This is better
exemplified in Figure 1, which represents a screenshot of the Excel table described above.

![Figure 1: The corpus #1: Excel table with annotations](image)

Furthermore, as both corpora were analysed by two different annotators, a great amount of time was spent after the initial annotation process to achieve full 100% inter-annotator agreement. The initial inter-annotator agreement was relatively high: 64%. However, after lengthy discussions about each example where the annotators’ judgments on the translation strategy employed were not identical, all the problematic examples were jointly annotated. Hence, it may be said that, after the joint annotation, the inter-annotator agreement was a full 100%. As the two corpora were annotated in succession, the procedure for annotating Corpus #2 was slightly modified, to maximally streamline the process. For example, the relevant parts of translation in the second corpus were annotated by using a colour scheme, rather than different forms of underlining, which greatly simplified the subsequent analysis. Furthermore, based on the annotation problems faced in the first corpus, the second corpus was annotated for an additional translation strategy: concretisation, which is important for further research based on this one, but has no bearing on the research presented in this paper. The screenshot of the Excel table with annotated examples from Corpus #2 is given in Figure 2.

The results of the annotation procedure and the analysis of the data provided by the annotations are given in the following sections of the paper, which first presents...
the results of the annotation procedure and then proceeds to analyse these results in line with the theoretical framework and the goals of this research, as set out in the introductory sections.

3. RESULTS: GENERAL OBSERVATIONS FROM BOTH CORPORA

In spite of this being a pilot research project based on relatively small corpora with a total of under 12,000 words, the results are encouraging at two separate levels of analysis: from the methodological point of view, the results prove that the chosen methodology provides relevant insights, and, from the point of view of translation studies, the results indicate that this sort of research can shed light on how translation strategies effectuate translation shifts in practice, providing insights into (possibly) consistent trends in the translation process. This section provides merely a general overview of the results, while it is the next section which contains detailed discussions on the frequency of individual translation strategies, the rate of structural changes and the overall shifts in style and register.
3. 1. Translation shifts: general phenomenon, but dependent on personal preferences

The general results of the corpus analysis are given in Table 1. The first piece of data that can be noticed is that both corpora contain a non-negligible number of instances of various strategies used to effectuate translation shifts, which may also be taken as an indication that translations shifts, including adaptations of style and register, really do represent a necessity in translation.

A more important conclusion, which may be drawn from Table 1, is that the amount of translation-shift-effectuating strategies probably depends on the translator’s general approach to translation. In other words, the level of translation shifts may depend on an individual translator’s preferences. More specifically, the stark difference in the maximum number of adaptation strategies used in Corpus #1 and Corpus #2 (5 vs. 21) may be taken as an indication that the translator(s) of samples from Corpus #1 use(s) fewer adaptation strategies and retain(s) closeness to the source text, while the translator of samples from Corpus #2 puts more emphasis on accommodating the original message to the style and register expectations of the target language culture. Furthermore, this finding also corroborates the initial corpus design decision to include texts translated by different translators, as using translations from the same translator may provide insight only into that translator’s individual preferences in adaptation.

3. 2. Translation shifts: possible culprit for wordcount increase in Serbian-English translation

Stemming from the previous one, another general conclusion that may be drawn is that the application of adaptation strategies produces a lengthier translation, in terms of the number of words. More specifically, the average length of English sentences in Corpus #2 is 45.19 words, while the original Serbian sentences have an average length of 34.88 words, which constitutes a difference of almost 30%, i.e. sentences in English are almost 30% (29.56%) longer than their Serbian counterparts – at least in Corpus #2. As mentioned above, Corpus #2 is also characterised by a bigger number of instances of adaptation translation strategies. On the other hand, English sentences in Corpus #1, which is the corpus that also exhibits fewer instances of adaptation strategies, are only 20.31% lengthier than the source sentences. The difference in Serbian-to-English increase in word lengths of about 9% between the two corpora, may therefore be an indication of possible translation
shifts, as the average increase of sentence length in Corpus #2 does not coincide with the standard increase in the number of words of about 20% when translating from Serbian into English. Namely, since English, unlike Serbian and most other Slavic languages, is largely an uninflected, analytical language with articles, English uses more words to express the same ideas, but, as many of these additional words are grammatical and relatively short in terms of their character-length, this generally results in English translations having more words but fewer characters than their Slavic originals (Perenčević 2002). This ratio for Corpus #1 is roughly within the 20% increase reported by practicing translators (Perenčević 2002), but the difference of almost 30% in Corpus #2 surpasses it. Naturally, this difference may be caused by a number of factors, but one possible explanation is a frequent application of translation strategies which require explanations of source language concepts and modifications in style and register for the target audience – i.e. lexical, grammatical and discourse translation shifts – at least in Corpus #2.

Table 1: Results of corpus annotation: general data

<table>
<thead>
<tr>
<th>DATA</th>
<th>Corpus #1</th>
<th>Corpus #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>The minimum of adaptation strategies used:</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>The maximum number of adaptation strategies used:</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>The minimum sentence length ( Serbian)</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>The maximum sentence length ( Serbian)</td>
<td>60</td>
<td>83</td>
</tr>
<tr>
<td>Average sentence length ( Serbian)</td>
<td>27.04</td>
<td>34.88</td>
</tr>
<tr>
<td>The minimum sentence length ( English)</td>
<td>11</td>
<td>4</td>
</tr>
<tr>
<td>The maximum sentence length ( English)</td>
<td>74</td>
<td>104</td>
</tr>
<tr>
<td>Average sentence length ( English)</td>
<td>32.5</td>
<td>45.19</td>
</tr>
</tbody>
</table>

This conclusion, that the frequency of using adaptation strategies is the individual preference of a translator, is further supported by the data on the absolute frequency of instances of adaptation strategies per sentence, i.e. per translation unit – as shown in Table 2. Although sentences in Corpus #2 are generally lengthier, the fact that more than 60% of sentences in Corpus #2 have more than 5 instances of adaptation strategies while no sentences in Corpus #1 have more than 5 such instances cannot be attributed to the difference in the overall sentence length between the two sub-corpora. This big a difference can probably be attributed only to individual preferences of the respective translators.
Table 2: Frequency of adaptation strategies per translation unit (TU), i.e. per each sentence pair

<table>
<thead>
<tr>
<th>Number of adaptation strategies per TU</th>
<th>Corpus #1</th>
<th>Corpus #2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>occurrence</td>
<td>percentage</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>2</td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>&gt;5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

4. DISCUSSION: QUANTIFYING TRANSLATION SHIFTS

This section provides a more detailed discussion on the frequency of individual translation strategies which effectuate translation shifts, the rate of structural changes, as a subtype of translation shift, and the overall interpretation of translation shifts observed in the corpus.

4.1. Different absolute frequencies among translators, but similar overall frequencies

When the analysis is taken one level deeper, from observations about both corpora to observations about individual parallel corpora, as shown in Figure 3, another valuable conclusion may be drawn. Namely, despite individual differences between each translator’s preferences towards using strategies which result in translation shifts, each corpus shows relatively similar trends when it comes to the hierarchy, or absolute frequency, of the least and the most commonly used types of translation strategies. Specifically, as it may have been expected, illustration is the least used strategy, i.e. it is not used at all, but paraphrasing using a related word is the most commonly used strategy with an almost identical number of occurrences in both corpora (94 in Corpus #1 and 88 in Corpus #2). This may be interpreted as an indication that the best way to adapt to the needs of the target audience is to use a similar concept from the target language. Furthermore, both corpora show a comparable and relatively high number of instances of the omission strategy (48 in Corpus #1 and 62 in Corpus #2), which implies that translators
quite often decide that some pieces of information need not be translated into the target language/culture.

Most importantly, although the number of occurrences of other translation strategies is not similar in the two corpora (paraphrasing using an unrelated word, cultural substitution, using a more neutral/less expressive word, using a superordinate term), their overall frequency is relatively similar. What this means is that regardless of the translator’s overall tendency to use translation strategies which result in translation shifts, the relative frequency of occurrence of individual translation strategies is going to be similar: the most frequent strategy is going to be paraphrasing using a related word, the second most frequent strategy – paraphrasing using an unrelated word, the third – omission; cultural substitution and translation by a subordinate word are going to be used with a similar relative frequency in the fourth and/or fifth position, while the least frequent translation strategies are going to be an introduction of a loan word and illustration. This similarity of the relative frequency of different translation strategies may be claimed to be the most important finding of this study.

![Figure 3: Frequency of strategies used to effectuate translation shifts](image)

The finding about the relative frequency of translation strategies is further corroborated by the data on the frequency of different structural changes in English translation (i.e. patterning, or discourse-level translation shifts), as shown in Figure 4. Namely, despite different observed frequencies in each sub-corpus, samples
from both corpora show virtually identical relative frequencies of reordering, extraposition, voice change, change of verb and nominalisation.

![Graph](image)

Figure 4: Frequency of discourse-level translation shifts, i.e. patterning

5. Closing remarks

In sum, despite differences in observed frequencies of translation shifts between the two corpora (199 instances in Corpus #1 and 418 in Corpus #2), it can be said that the corpus as a whole shows a non-negligible amount of shifts in the translation of Serbian non-fiction texts into English, which is shown in Table 3, where the main finding is that, on average, 22.85 out of 100 Serbian words will undergo some sort of a translation shift in the transference process from Serbian into English. To the best of the authors’ knowledge and reference literature research, this is the first time that the frequency of translation shifts has been clearly quantified.

Generally speaking, the figure of almost one quarter of ST words being subject to translation shifts can be taken as a proof that translators on the whole do not translate directly, or word-for-word, but make considerable efforts to adapt the message to the target culture, as well as to the style and register norms of the target language community. However, apart from this general finding, which some even take as a given, the most important finding of the research is that the actual number of translation shifts in the target text seems to be an individual preference of the translator. Equally important and going hand in hand with the
first finding, the second most important finding is that, despite variability in the individual translator’s preference for various strategies of effectuating translation shifts, the relative frequency of different translation strategies seems to be fairly fixed, whereby the most frequent strategy seems to be paraphrasing using a related word, the second most frequent – paraphrasing using an unrelated word, the third – omission, cultural substitution and translation by a subordinate term seem to be relatively marginal, while an introduction of a loan word and illustration seem to be the least frequent of the adaptation translation strategies. The same finding can be extended to translation shifts that go beyond the lexical level, i.e. structural changes (or patterning), where reordering/refocusing seems to be the most common and structural change and nominalisation – the least common one (see Figure 4).

In short, the general trends in the absolute frequency of translation shifts are virtually identical among different translators, but their actual frequency in each sub-corpus varied depending on the translator’s preference.

Table 3: Overall percentage of translation shifts from Serbian into English in the corpus as a whole

<table>
<thead>
<tr>
<th>Translation Shifts</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL TRANSLATION SHIFTS PER 100 SERBIAN WORDS</td>
<td>22.85</td>
</tr>
<tr>
<td>LEXICAL AND GRAMMATICAL SHIFTS PER 100 SERBIAN WORDS</td>
<td>17.47</td>
</tr>
<tr>
<td>DISCOURSE (SENSE &amp; PARAGRAPH) SHIFTS PER 100 SERBIAN WORDS</td>
<td>5.38</td>
</tr>
</tbody>
</table>

Additionally, the research process revealed some gaps in Baker’s classification of translation strategies and adaptation patterns (Baker 2011). For example, Baker (2011) notes generalisation as a translation technique, or translating by a superordinate, but never mentions cases such as translation by a more specific word, which initially presented problems in the corpus annotation.

5. 1. Further research and self-criticism

Despite the exact findings on the frequency and manner in which translators adapt the source text to the needs of the target audience when direct translation is not available, the corpus analysis presented here should be taken ‘with a grain of salt’ due to the small size of the parallel corpus on which the research was based. For these findings to be fully verified, perhaps even as translation universals, this kind of research should be conducted on a much bigger parallel corpus with more language pairs, more different genres of writing, translators, text types, etc. It is hoped by the authors of this study that the results presented in this paper may represent an invitation for other researchers to explore this topic, as a more thorough research of this kind may not only be valuable for translation studies, but may
also be extremely important for Serbian-English translator training, as well as for translation pedagogy in general.

References

13. Hileman, Sam to Carlos Fuentes, 26 May 1966, Princeton University Library, Manuscripts Division, Department of Rare Books and Special Collections, Carlos Fuentes Papers, Correspondence, Series 4A, Box 108, Folder 13.

**Sources**


Aleksandar P. Kavgić, Kristina Š. Andušić

Univerzitet u Novom Sadu
Filozofski fakultet
Odsek za anglistiku

**KVANTIFIKOVANJE UČESTALOSTI PREVODILAČKIH ODMAKA U PREVOĐENJU SA SRPSKOG NA ENGLESKI: STUDIJA SLUČAJA DVA NEKNJIŽEVNA TEKSTA**

**Rezime**

Istraživanje kombinuje metodologiju korpusne lingvistike i kvalitativnih istraživanja u domenu deskriptivnih studija prevođenja sa ciljem utvrđivanja učestalosti prevodilačkih odmaka (eng. *translation shift*), tj. slučajeva odstupanja od formalne korespondencije, kao i prevodilačkih strategija kojima se odmaci postižu. Paralelni korpus se sastojao od oko 5 000 reči izvučenih slučajnim uzorkovanjem iz

Ključne reči: korpusna lingvistika, strategije prevođenja, prevodilački odmaci, paralelni korpus, deskriptivne studije prevođenja.