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**ANALYSIS OF RHYTHM REPRODUCTION IN ENGLISH-
RUSSIAN LITERARY TRANSLATION**

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Abstract

The research was conducted within the framework of automated text processing and literary translation theory with the purpose of assessing the possibility of accurate reproduction of repetition-based rhythm figures in a literary text translated from English into Russian and outlining the strategies adopted to compensate for the figures lost in translation. The research is a case study of Iris Murdoch's novels "The Black Prince" and "The Bell" and their Russian translations done by I. Bernstein, A. Polivanova and O. Redina. Data analysis was performed using original ProseRhythmDetector software developed by a Russian research group including the author of the article. The tool is designed for automatic search and detection of rhythm figures in English, French, Spanish and Russian texts. The analysis of the original literary texts and their Russian translations demonstrated a relatively low accuracy of rhythm figure reproduction in the translated texts, the highest accuracy being accomplished for polysyndeton, diacope and simloce, epizeuxis showing mixed results. The translation of epiphora and epanalepsis is characterized by the lowest degree of precision. The reasons for successful recapture of rhythm in translation include comparable capabilities of English and Russian to create rhythm patterns based on position-independent repetition, reduplicative repetition and use of conjunctive means. Translation failures are chiefly connected with objective discrepancies in the language systems as well as more "aggressive" behavior of repetition in Russian due to phono-morphologic distinctions.

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1. Introduction

The issue of rhythm reproduction in translated texts has received considerable attention in the studies in literary translation and related areas including discourse, theory of communication, cognitive grammar, cognitive semantics, etc. The article focuses on the reproduction of grammar rhythm figures based on repetition – *anaphora*, *epiphora*, *symploce*, *anadiplosis*, *epanalepsis*, *epizeuxis*, *diacope* and *polysyndeton* – in English-Russian translations. The choice of the above figures is primarily determined by their high-level representation in English literary texts, the factor also being decisive for their inclusion in the matrix of the ProseRhythmDetector tool designed for automatic search and detection of rhythm figures in English, French, Spanish and Russian texts (for more details see Section 5. Research Methods) and providing the mathematical and computational tooling of the research.

On a point of clarification, *anaphora* is defined as the repetition of words at the beginning of successive clauses, *epiphora* – as the repetition of words at the end of successive clauses; *symploce* is treated as a joint use of anaphora and epiphora, *anadiplosis* – as the repetition of the final word of one clause or sentence at the beginning of the successive clause or sentence; *epanalepsis* is repetition at the end of a clause or sentence of the word or phrase with which it began; *epizeuxis* is repetition of a word or phrase with no words in between; *diacope* involves repetition of a word or phrase broken up by one or more intervening words while *polysyndeton* is a rhetorical term for a sentence style that employs repeated coordinating conjunctions (Glossary of Grammatical and Rhetorical Terms, 2020).

2. Problem Statement

The analysis of works on the subject under inquiry has identified challenges and bottlenecks in the research into text rhythm reproduction in literary translation.

First, current studies are confined to the analysis of select and specific issues of literary text rhythm reproduction, which allows for an assumption that a comprehensive study of various rhythm forms (prosodic, semantic, syntactic etc. added by notional and narrative rhythm explored by literary scholars) taken together is extremely laborious and complex (Boychuk et al., 2019a).

Second, recent research is largely dominated by works dealing with phonetic, syntactic, structural and graphic aspects of rhythm translation.

Thus, Ding (2008) contrasts the syllabic structure of English with the tonic structure of Chinese, seeking for possible compensations for the discrepancies in the language systems with consideration to the language form, sound, grammar, rhetoric as well as the cultural background and way of thinking of their speakers.

Juxtaposing European languages, Parks (1998) argues that English is marked by a far greater number of monosyllabic words than any other European language, which inevitably entails rhythmic transformations resulting in the change or disturbance of the syllabic structure of a translated utterance.

Pekkanen (2015) looks at rhythm translation at the syntax level examining it from the standpoint of syntactic construction affinity, the position of the principal clause in a complex sentence, invariance (variance) of the grammatical form of the predicate etc.

Golubeva-Monatkina (2016, 2017) studies paragraphs, phrases and phrasal elements reckoning them among rhythmic units subject to exact reproduction in translated texts.

Scott (2011) emphasizes the importance of preserving every visual or graphic element in translation including fonts, page proofs, etc.

The literature review, however brief, reveals a gap in the study of transfer into the target literary text of repetition-based rhythm figures belonging to the realm of syntax which the research in question is attempting to bridge.

3. Research Questions

The article in hand thus attempts at finding viable solutions and identifying areas for further research with regard to the following questions: first, whether the reproduction of repetition-based rhythm in terms of linguistic precision is possible if the source and the target languages are unrelated; second, what conditions the translator's "inability" to reproduce the original text rhythm; third, what compensatory means can be used in case of limited possibility (impossibility) or explicit refusal to accurately reproduce the repetition-based rhythm in translation and what determines the translator's choice of such means.

4. Purpose of the Study

The research objective is therefore to assess the possibility of accurate reproduction of repetition-based rhythm figures in a literary text translated from English into Russian and summarize the strategies adopted to compensate for the rhythm figure loss in translation.

5. Research Methods

As has been mentioned previously, the research was conducted using a special tool (the ProseRhythmDetector tool) aimed at the search and visualization of rhythm figures in a literary text. It was developed by a Russian research group using the Python programming language and is available at <https://yadi.sk/d/yD0Qa5B6Vk3aPg> (Certificate of State Registration of Software №2019619380, 2019).

The algorithm underlying the tool operation involves splitting the text into sentences and generating lists of rhythm aspects, where each list corresponds to a particular rhythm figure. The lists are generated according to the positional matches of repeated words (phrases) in a sentence (clause) preassigned by the rhythm figure type (see definitions). To avoid excessive false-positive results, the tool uses stop-word lists including articles, high-frequency pronouns ("it" for epiphora), auxiliary verbs and pronouns ("had" and "that" for epizeuxis to avoid the attribution of "had had" and "that that" to the case), single-consonant prepositions introducing nouns in different cases for Russian texts (в, к, с etc.) etc. The stop word lists were compiled empirically and continue to be expanded and corrected when testing new versions of the tool (Lagutina et al., 2019a, 2019b, Boychuk et al., 2019b).

The tool is not devoid of mis- and cross-identifications, some of them stemming from the flaws of the tool and waiting to be corrected, others arising from purely linguistic factors – semantic heterogeneity of the repeated units associated with different denotata and included in different types of speech (direct and indirect), use of negative and positive forms with a different communicative intent, etc. Whatever the

reason, such misdetections and cross-identifications were dealt with manually: the contexts extracted automatically were reviewed, the false results being excluded from the final statistics.

6. Findings

The comparative research of the source and target texts focused on the transfer of repetition-based rhythm figures is a case study of Iris Murdoch's novels "The Black Prince" (Murdoch, 2013) and "The Bell" (Murdoch, 2001) and their Russian translations made by I. Bernstein, A. Polivanova (as cited in Murdoch, 2019) and O. Redina (as cited in Murdoch, 1995). It should be noted that the author of the research did not seek to compare the translated texts with each other or analyze the translators' individual styles. The two novels by the same author were selected for the sake of obtaining more reliable statistics.

Influenced by various ideologies, philosophers and writers, Iris Murdoch brought philosophy and literature together and tried new styles in writing, which places her among the most innovative and versatile writers of the 20th century (Yönkul, 2014).

Though her novels differ markedly, and her style developed in time, some style marks recur, being dominated by satire and paradox, the author's original tropes, historical, religious and literary reminiscences. Her primary tools are ... allusions to mythology, art and religion...functioning at a high level of imaginative power... (Dipple, 2019).

In the context of the given research the recurrent figures of rhythm based on repetition: diacope, anaphora, polysyndeton, epiphora, epanalepsis, anadiplosis, epizeuxis and symploce, are of special interest. They always convey a rhetoric effect, enhancing the dynamism of narration and the liveliness of dialogue.

As has been mentioned above, the statistics for the rhythm figures were obtained through the use of the ProseRhythmDetector tool, the results being corrected manually afterwards.

Table 01 demonstrates the frequency of occurrence of the above figures in the originals of "The Black Prince" and "The Bell".

Table 01. Rhythm figure frequency of occurrence in source texts

Rhythm figure	The Black Prince	The Bell
Diacope	ab. 2500	ab. 3000
Polysyndeton	ab. 600	ab. 600
Anaphora	585	339
Epizeuxis	158	36
Epiphora	149	40
Epanalepsis	19	7
Anadiplosis	22	26
Symploce	9	0

Iris Murdoch's novels have been successfully translated into many languages including Russian. Unlike her original plots and narrative manner that have been elaborately studied since the 1950s, their recapture in translation, let alone the reconstruction of her style including its rhythm aspect, have lacked attention so far.

Aiming at assessing the accuracy of repetition-based rhythm reproduction in the translations of I. Murdoch’s novels, we collected rhythm statistics from the Russian translations. The statistics were likewise verified and are provided in Table 02.

Table 02. Rhythm figure frequency of occurrence in target texts

Rhythm figure	The Black Prince (Черный принц)	The Bell (Колокол)
Diacope	ab. 800	ab. 450
Polysyndeton	ab. 700	ab. 700
Anaphora	327	127
Epizeuxis	134	10
Epiphora	113	44
Epanalepsis	3	6
Anadiplosis	20	17
Symploce	2	0

The results of the comparative analysis for the two novels and their Russian translations can be summarized in the following way.

Out of the 924 contexts of the original anaphora 166 contexts (18%) are reproduced with relative quantitative and positional accuracy. In 68 of the cases (7.3%) the number and position of the repeated units are fully consistent with those in the source text. In 38 cases (4.1%) the number of repeated units is different, their position remaining the same within the paragraph. 55 contexts (6%) reveal a shift in the position of anaphora within the paragraph, 26 of them showing a downward change in the number of repeated units. 5 contexts (0.6%) contain a smaller number of elements repeated with interruption, so the repetition is no longer perceived as anaphoric.

In 758 cases (82%) anaphora is lost or substituted by a different rhythm figure, primarily diacope.

Based on the analysis, the loss of anaphora is essentially caused by the limitations of Russian to form the Passive voice as well as the language distinctions pertaining to average sentence length, actual division of the sentence and use of structures conveying modality.

Of equal significance is the effect of excessive “assertiveness” that multiple repetition may produce in Russian – the repetition containing over 4 units (personal pronouns serve an excellent example) feels redundant since their grammatical meaning is duplicated through Russian morphological forms related to verb conjugation, change of the root vowel or consonant throughout the word paradigm, distinctions in the person and number forms etc.

Phonological aspect may also interfere, since Russian has by far fewer monosyllabic words than English, so each time more syllable are repeated: *she – она*.

The remaining 288 cases of anaphora detected in the target texts are found in sentences (clauses or phrases) containing no anaphoric repetition in the source texts. Many of the contexts feature other rhythm figures in their structure, diacope ranking first for the frequency of occurrence, while others contain no repeated elements, which can be treated as translators’ conscious or unconscious attempt to compensate for the positional loss of anaphora as compared to the original.

Out of 189 contexts with epiphora 16 (8.5%) are meticulously reproduced in the Russian translation.

In 34 cases (17.9%) the original epiphora is substituted by other rhythm figures, diacope in the first place (21 cases), followed by replacement with a synonym sometimes coming in conjunction with a change

in the word order (5 cases), anadiplosis (2 cases), gradation (1 case), a combination of ellipse and antonymic translation (1 case), epanalepsis (1 case).

The target texts also feature examples of epiphora in sentences (clauses) containing no epiphoric or any other type of repetition in the source texts, which, as has been mentioned previously, can be viewed as an attempt to compensate for the positional loss of epiphora.

The above statistics for epiphora (at a ratio of 3 to 1) is rather predictable and primarily depends on the difference in the position of the sentence rheme in English and Russian. To avoid a break of the actual division of the sentence, the translators resort to the transposition of the sentence parts which entails the loss of epiphora. However, as is seen from above, epiphora is compensated for in a sufficient number of contexts.

2 out of 9 original contexts with *simplexe* (22.2%) has a perfect match in the target text. The remaining contexts reveal a few rhythmic transformations, the original *simplexe* being replaced with *diacope* (4 cases), epiphora (2 cases, once coming in conjunction with *diacope*) and syntactic parallelism.

The target text contains 3 contexts that mirror no *simplexe* in the source text and are considered a compensatory means. 5 out of 48 (10.4%) original contexts containing anadiplosis are precisely reproduced in translated texts.

When translated into Russian, the other contexts suffer loss of anadiplosis compensated for by other rhythm figures (*diacope* in the first instance) or receiving no compensation in terms of repetition-based rhythm. However, the aggregate quantity of anadiploses in the target texts (37 in the 2 texts) speaks for the equitable use of this rhythm figure as compared to the source texts, albeit for the sake of compensation.

The analysis of epizeuxis brings us to divergent conclusions. While the percentage of its reproduction in the translation of “The Black Prince” is very high (over 80% of contexts contain epizeuxis in correspondent target sentences), the percentage hardly exceeds 15% in “The Bell”.

The reasons behind such discrepancies are not clearly visible. In both cases the repeated units are mainly represented by parenthetic words (well, suppose), interjections (oh, Christ), vocatives (dear), imperatives (come), set phrases (all right), with the exception of proper names regularly repeated in “The Black Prince” (Rachel) and not repeated in “The Bell”. At this point of analysis the differences may only be explained by the individuality of the translator’s style.

Epanalepsis has shown the lowest percentage of matches in the target texts as compared to the originals (7.7%, 2 out of 26), although all the 4 texts feature examples of this rhythm figure.

These statistics point at the essential differences in the use of means to form epanalepsis in English and Russian rather than speak for the principal impossibility to reproduce epanalepsis in translation. The vast majority of examples extracted from the given texts are represented by tag-questions which have a different structure in Russian, generally finishing with “*He так ли*”, the phrase to be found only in the final position of a sentence (clause, phrase). Other peculiarities are related to the homonymy of notional and auxiliary verbs and fillers (do, have), content and structural words (there) etc., which is peculiar of English only. However, the translators introduce epanalepsis in contexts featuring other rhythm figures (e.g., epiphora).

Diacope is reproduced with greater or smaller precision (1-2 units in a multiunit row (exceeding 4 units) may be omitted) in about 25% of cases.

Another 5% of contexts have seen diacope replaced with other rhythm figures compensating for the original rhythm pattern. The example analyzed reveals meaning extension coupled with syntactic parallelism.

In other contexts, diacope is lost. As has been mentioned, though, it is employed as a compensatory means to replace other rhythm figures when the original rhythm pattern cannot be reproduced (see above) or in sentences mirroring no diacope in the source text.

The chief reason for failing to reproduce diacope that can be suggested from the analysis done is the limited possibility of translating English personal and possessive pronouns frequently forming this rhythm figure without making a mistake in their usage in Russian or making the repetition too oppressive (“I” as the sentence / clause subject especially if the sentence / clause is short, possessive pronouns before nouns denoting terms of kinship, articles of clothing, body parts etc. where they are not normally used in Russian etc.).

Polysyndeton is among the most successfully reproduced figures of rhythm in the English-Russian translations, the number of contexts translated accurately amounting to 35-40%. It should be pointed out that in some cases the translator introduces extra conjunctions, which is generally determined by the linguistic (syntactic) tradition in Russian.

In the remaining cases polysyndeton is lost or compensated for through the use of synonymous conjunctive means: *and – и, а также*. (The Black Prince).

7. Conclusion

Summarizing the research results, we note that the highest accuracy in rhythm reproduction has been achieved for polysyndeton (35-40%), diacope (25%) and simplexe (22.2%), epizeuxis showing ambiguous figures ranging from 15% to 80%. The translation of epiphora and epanalepsis is characterized by lowest precision featuring 8.5% and 7.7% respectively.

The reasons for successful recapture of rhythm in translation include comparable capabilities of English and Russian to create rhythm patterns based on position-independent repetition (diacope), reduplicative repetition (epizeuxis) and use of conjunctive means (polysyndeton). Translation failures are chiefly connected with objective discrepancies in the language systems as well as more “aggressive” behavior of repetition in Russian explained by phono-morphologic distinctions. The “interference” of the translator’s individual style should also be taken into consideration. This, however, requires further consideration.

The main strategies of compensation for rhythm figure losses include replacement of the given figure with a different rhythmic means and their positional change.

The topic under discussion has a broad research prospect in terms of assessing the influence of the translator’s “personal” voice on reproducing the original rhythm, as well as analyzing the effect that utterances with the original rhythm preserved and transformed produce on the receptors of the target text. This will provide scholars with a further insight into the concepts of equivalence and adequacy of literary translation.

The idea and methods can be extrapolated on the studies of the source and target texts generated in other styles and genres.

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