SOME OF THE MORPHOLOGICAL FEATURES OF NOUNS IN SCIENTIFIC PROSE

Aigul R. Valeeva
Kazan Federal University, (Elabuga Institute), Elabuga, Tatarstan Republic
aigulechka.92@mail.ru

Albina A. Bilyalova
Kazan Federal University, (Elabuga Institute), Elabuga, Tatarstan Republic
abill71@mail.ru

ABSTRACT
A rapid development of science and a constantly growing interest in the processes occurring in the international arena cause the necessity to study scientific papers, of both domestic and foreign scientists and scholars, as well as the need for sharing their experience in research activities. In this regard, there is an actual tendency to translate scientific works into a foreign language with the aim of publication in leading international scientific journals. This article discusses some morphological peculiarities of nouns enclosed in scientific texts in English and Russian. The role of study of the above units is significant and immense in the process of translation with the further dissemination of knowledge throughout the world. There is an attempt to find and characterize identical and similar features in the morphological structure of nouns. A number of identical and heterogeneous features were found in the English and Russian languages within the framework of this research. We attempted to make up a spreadsheet giving a visual representation to the morphological peculiarities of nouns for the successful formation of knowledge about the linguistic peculiarities of scientific prose texts.

Keywords: scientific prose; text; morphological feature; noun; category; case, number

INTRODUCTION
There is a tendency to spread and publish the results of scientific studies in leading international scientific journals. However, many scientists find it impossible to perform this action. It should be noted that this refers not only to free of charge, but also to commercial scientific journals. One believes that this happens due to political disputes and tendencies to the exclude Russia from the international arena in all spheres. Others accuse Russian researchers of incompetence in a foreign language (particularly English) which prevents publications abroad. The fallacy of both assumptions can be justified, taking into account the fact that even some university teachers fail to succeed in publishing the results of their studies in foreign journals.

The main reason of weak publication activity of Russian specialists abroad are rooted in the lack of competence in the field of knowledge concerning the linguistic features of the texts in scientific style, both in source and target languages.

The aim of this work is the study of some morphological features in scientific prose texts.

Morphological features of scientific texts should be considered as an integral to functional-stylistic forms along with vocabulary and syntax.
In this regard M. N. Kozhina turns out to be right judging that specific features of the text of a particular functional style are comprised of both lexical and grammatical means, as well as the analysis of grammatical forms’ functioning [Kozhina, 1972].

**METHODS**

In the course of our work the following methods were used: descriptive method and comparative analysis.

The usage of these methods let us think that the basis of the scientific texts are, first and foremost, nouns, and secondly, adjectives, and verbs, occupying the third position in this hierarchy. Russian linguists often refer to a nominative character of scientific texts [Kotyurova, 2008].

However it should be mentioned that not all linguists agree with this point of view [Korotkina, 2014; Lynn, 2010]. I. B. Korotkina believes that such nominalization complicates the perception of information from scientific text. The proof relies on the statement by John Bin, who believes that an educated person must express thoughts through verbs, as it is the most effective method of expressing actions [Cherniavsky, 2010].

**RESULTS**

The category of connectivity inherent in scientific texts leads to the increase in the use of conjunctions and prepositions in both languages. This provides logical structure of the text. The number of auxiliaries is constantly growing due to the conversion processes peculiar to significant parts of speech.

One of the connecting means in scientific prose texts is the system of cases. However the number of cases in both languages does not coincide. The Russian category of cases consists of six cases: Nominative, Genitive, Dative, Accusative, Ablative (Instrumental) and Prepositional one while there are only two cases in English: Common and Possessive. The relationship between words in a sentence represented by Nominative, Accusative, and Dative cases is expressed in English with the help of Common case. English word order serves those objectives. For example, indirect object follows the direct one. Nevertheless this order could be easily destroyed by adding particle “to” after the direct object.

Nouns in phrases that express attributive relations in the Russian scientific texts are often performed in the form of the Genitive case (the Pythagorean Theorem). Possession in English is expressed with the help of Possessive case which is formed by adding “apostrophe s” to the nouns in the singular and just an apostrophe to the nouns in plural [Kolesnikova, 2010; Cherniavsky, 2010].

A.L. Pumpyanskiy emphasizes the idea that possessive forms (’s) in English scientific and technical literature are mostly used with nouns, denoting the time or the author of the discovery [Pumpyansky, 1965].

Currently the noun phrases in scientific texts, performing attributive relations (especially the authors’ names), consist of nouns functioning as an attribute in the Common case instead of the Possessive one (the Hofmann reaction). Besides, the use of the definite article is necessary in this context.

Furthermore, passive constructions in Russian are presented by the Instrumental case while in English the passivity is expressed by prepositions “by” and “with” + Noun in the Common case [9].

Another morphological characteristic of the texts in scientific prose to be considered is the category of number. Considering Russian scientific texts we should pay attention to the use of uncountable nouns in the singular which get the plural form in scientific texts but do not exist in common language (maslo-
masla (oil), stal’-stali (steel) [Mitrofanova, 1985; Razinkina, 1978]. There is an English counterpart of this morphological feature. Therefore, some uncountable nouns used only in the singular turn into countable ones if we are referring to individual atoms of the substances and take their plural forms (iron, copper etc).

English scientific literature contains a number of words of Latin and Greek origin ending with -is, -ies, -ics, -us, -um, -non in the singular. These words, as well as some borrowings from Greek and Latin, have retained the plural form of the source languages (analysis—analyses, phenomenon phenomena etc). Due to the processes of simplification many of the above mentioned nouns have parallel plural formed according to the norms of modern English language (formula – formulae – formulas). Nevertheless scientific texts adopt the old forms. However, some modern forms are presented in scientific prose (formulas).

The norms of scientific communication in all languages lead to the selection of stylistically neutral words, which are the basis of scientific texts. In accordance with this tendency, researchers use words with international prefixes, roots and suffixes (inter-, macro-, anti-, micro -, etc) in both languages.

**CONCLUSION**

All the above mentioned peculiarities could be presented structurally in the Table1.

<table>
<thead>
<tr>
<th>Morphological feature</th>
<th>English</th>
<th>Russian</th>
<th>Identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>the category of connectivity</td>
<td>conjunctions and</td>
<td>conjunctions and</td>
<td>common</td>
</tr>
<tr>
<td></td>
<td>prepositions</td>
<td>prepositions</td>
<td></td>
</tr>
<tr>
<td>the category of case</td>
<td>nominative, genitive,</td>
<td>common and possessive</td>
<td>heterogeneous</td>
</tr>
<tr>
<td></td>
<td>dative, accusative, ablative</td>
<td>(instrumental) and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>prepositional</td>
<td></td>
</tr>
<tr>
<td>the category of number</td>
<td>singular, plural</td>
<td>singular, plural</td>
<td>common with distinguishing features</td>
</tr>
<tr>
<td>word formation</td>
<td>international prefixes, roots and suffixes</td>
<td>international prefixes, roots and suffixes</td>
<td>common</td>
</tr>
</tbody>
</table>

The study of morphological features of nouns peculiar to scientific texts let us make up a spreadsheet of their morphological similarities and differences. It is obvious from the spreadsheet that word formation is a coherent feature in both languages. This fact could be clarified in the sense that the selection of stylistically neutral words is the privilege of scientific prose style in all languages. Another common feature is the category of connectivity, which implies logical presentation of the material that is natural since the purpose of each scientific work is to convey certain information and logical structure helps to reach this aim. Differences in the categories of number and case are rooted in a long complicated history of both languages but nevertheless require thorough study and careful usage during the translation. Thus, it becomes obvious that the morphology of the texts of the scientific style requires thorough selection of word forms, parts of speech and categories. Therefore the study of linguistic peculiarities becomes a perspective direction in the process of knowledge dissemination throughout the world.

**ACKNOWLEDGEMENTS**
The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

3. Kolesnikova N. And. What is important to know about the language and style of scientific texts // Higher education in Russia. – 2010. – No. 6. – P. 143-148.