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THE ETYMOLOGICAL SPECIFICITY OF ENGLISH-LANGUAGE ECOLOGY TERMS

©*Nigmatullina A.*, ORCID: 0000-0002-4871-5721,
Fergana Polytechnic Institute, Fergana, Uzbekistan, *ferpi_info@edu.uz*

ЭТИМОЛОГИЧЕСКАЯ СПЕЦИФИКА АНГЛОЯЗЫЧНЫХ ЭКОЛОГИЧЕСКИХ ТЕРМИНОВ

©*Нигматуллина А. Ш.*, ORCID: 0000-0002-4871-5721, Ферганский политехнический
институт, г. Фергана, Узбекистан, *ferpi_info@edu.uz*

Abstract. The anthropocentric paradigm in linguistics, which brings to the fore the study of the human-language relationship, also correlates with the socio-ecological terminology: for the humanities, which includes philology, the terms of greatest interest are those that reveal various aspects of human interaction with nature, human influence on biological processes at various levels: from the micro-level (soil cultivation, cattle breeding, etc.) to the macro-level (global environmental disasters, space debris, etc.). The present article is an attempt to study the etymological specificity of English-speaking ecology terms in terms of anthropolinguistic approach.

Аннотация. Антропоцентрическая парадигма в лингвистике, выдвигающая на передний план изучение человеко-языковых отношений, также коррелирует с социально-экологической терминологией: для гуманитарных наук, к которым относится филология, наибольший интерес представляют термины, раскрывающие различные аспекты взаимодействия человека с природой, влияние человека на биологические процессы на различных уровнях: от микроуровня (возделывание почвы, разведение скота и т. д.) до макроуровня (глобальные экологические катастрофы, космический мусор и т. д.). Настоящая статья представляет собой попытку изучить этимологическую специфику англоязычных экологических терминов с точки зрения антрополингвистического подхода.

Keywords: special vocabulary, term, comparative analysis, etymological research, original term, borrowing, Latin, Greek.

Ключевые слова: специальный словарь, термин, сравнительный анализ, этимологическое исследование, оригинальный термин, заимствование, латинский язык, греческий язык.

Discussion

Terminology is a significant part of the lexical composition of any language [1]. It is a source of receiving and transmitting information, the way to further development of science and technology, mutual understanding and international cooperation. According to V. F. Novodranova [2], “terminology is an open and unclosed system”, actively was interacting with the outside world. Terminology is also characterized by “mobility of vocabulary composition”, appearance of new terms or new meanings of existing terms. Terminological stock increase occurs not only due to the construction of new lexemes, but also due to the use of existing lexical units to denote new concepts in related or contiguous spheres of knowledge [1].

Indeed, terminology greatly simplifies and systematizes the process of information exchange between specialists in this or that field. Responding sensitively to changes in the development of science and society, as well as to global trends, such as globalization, terminology over time partially changes the composition and structure of its constituent terms. And the terminology of ecology is no exception. Originating as a biological science, ecology included almost exclusively natural science terms (autotrophs, consumers, ecological niche, trophic chain, photosynthesis).

As new fields of knowledge were incorporated into ecology (e. g., the applied discipline of Nature Management and Environmental Protection), ecological terminology was enriched with more and more new words (renewable energy sources, emissions, atmospheric air quality, environmental monitoring, household waste management). Over time, the duality of the science of ecology became apparent: along with biological factors, humanitarian aspects (social, cultural, moral and ethical, political, etc.) also became the object of close study.

The anthropocentric paradigm in the study of ecology gave rise to a number of studies on social ecology and human ecology and contributed to the formation of an impressive lexicon (anthropoecology, environmental degradation, noise pollution, anthropogenic load, noosphere, environmental consciousness, urbanization).

Now it is possible to assert that every year more and more scientists-philologists turn to a question of studying of linguistic features of ecological terminological vocabulary, come to a conclusion about necessity of revealing, the analysis and systematization of ecoterms both in ecology as a whole, and in its separate branches. L. P. Grunina [3] asserts that “with the development of ecology the questions of studying of corresponding terminology become more and more important”. Ecological terminology is analyzed from different sides: cognitive-discursive analysis, study linguistic and extra-linguistic factors influencing formation of ecoterminosystem and determining its specificity, distinguish lexico-semantic groups, compare special vocabulary of different languages.

The study of the process of term formation from the standpoint of cognitive linguistics is currently traced in the direction of building a conceptual model of a particular field of knowledge and determining the relationship between knowledge structures and language forms. I. A. Gromova believes that at least two concepts, which are schematized in the word-formation model, underlie the process of term generation. Supporting V. F. Novodranova’s point of view, the linguist notes that in this process it is important to consider the composition of term-formation models, capable of recreating in linguistic form the logical and conceptual categories of this field of knowledge [4]. The combinations of concepts included in the structure of a derivative term form a single conceptual structure, which can be considered as a propositional form of knowledge storage. In this case a derivative word, on the one hand, reflects elements of human experience and evaluation of reality and is a repository of knowledge, and on the other hand, it should be convenient and simple in speech. The modeling function of terminological units is connected with the emergence of new concepts on the basis of existing concepts at the expense of the convergence of related concepts, the establishment of an analogy between them. The form of the term, reflecting the complexity of the concept behind it, is not inert, it helps to orient the specialist to certain properties of this or that object of thought [5].

It is known that depending on the features of terms related to their structure, form, semantics, there are different aspects of the study of terminological units. The most popular research methods (both general scientific and linguistic) are:

- comparative method;
- quantitative analysis;

- descriptive method;
- analysis of dictionary definitions (lexicographic analysis);
- contextual analysis;
- structural method;
- component method;
- observation method;
- generalization;
- statistical method;
- modeling;

Less common are the following methods:

- interpretation, conceptual analysis, definitional analysis;
- deduction and induction, continuous sampling, systematic approach;
- sociolinguistic analysis, semantic field method, analysis and synthesis, etymological analysis, historical (diachronic) analysis, classification method, morphological (word-formation) analysis, discourse analysis;
- theoretical-analytical, logical-conceptual, stylistic, frame analysis, generic analysis, method of cognitive modeling, method of correlation of linguistic facts, historical-genetic method.

Among the materials of the study the most popular are:

- Internet resources;
- periodicals, including electronic ones;
- scientific articles, monographs, theses and dissertation abstracts;
- dictionaries in foreign languages;
- English/Uzbek/Russian dictionaries;
- encyclopaedias, encyclopaedic dictionaries;
- textbooks, manuals;
- seminar and conference materials;
- electronic catalogs, databases.

In order to carry out the etymological study of English environmental units of special vocabulary at the first stage single-word (monolexic) terms from the analyzed domestic and foreign lexicographic sources were selected, in particular: “Historical and etymological dictionary”, “Environmental encyclopedia dictionary”, when analyzing the English language special vocabulary, we used “Environmental encyclopedia” and “Online etymological dictionary”.

For the purposes of the anthropological analysis of ecological vocabulary, the historical aspect of the study of terminological units plays a special role. The material for the study of this article consists of English terminological units nominating concepts related to the ecological sphere of scientific interests. The total volume of marked single-word terminological units of English special vocabulary was 1,000 verbal units of environmental terminology.

The calculations made in the course of the study of etymological specificity show that in the English-language special vocabulary 30% of linguistic units belong to the original terminological units of Anglo-Saxon origin. Examples of native words are as follows: acre (‘акр’), bank (берег-сохил), bird (птица-куш), drizzle (изморось-изғирин), field (поле-дала), grove (роща-дарахтзор), growth (рост-ўсиш), ice (лед-муз), meadow (луг-яйлов), tor (скалистая вершина – кояли тепалик), pool (бассейн-ҳавза), rubbish (мусор-ахлат), etc.

It is noteworthy that the designated environmental terminological units are actually Anglo-Saxon verbal units, which have been appropriately reinterpreted and given a special meaning.

Borrowed units of special ecological terminology to a large extent exceed the share of native ones. According to the results of the study, their volume is 70% of all analyzed linguistic units. The significant prevalence of borrowings as a source of enrichment of the conceptual apparatus of a particular science characterizes a number of other terminologies.

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According to calculations, they are the words of Latin and Greek origin that constitute the main corpus of this class of terms. It should be emphasized that for this study, carried out within the anthropocentric direction, the knowledge of the interpretations of the most common bases of Greek and Latin origin provides an opportunity to discover the motivation of acquired linguistic units, to comprehend and compare their meaning in differently structured languages.

Thus, a significant contribution to the formation and development of the English environmental terminology was made by Latin (45% of units). As an illustration, let us cite the following examples: ablation < Lat. ablation (ампутация), abscission < Lat. abscission (опадение–тўкилиш'), absorption < Lat. absorption (поглощение–ютиш), accretion < Lat. accretion (нарастание – ўсиб бориш), arbor < Lat. arboretum (дерево–дарахт), fauna < Lat. Fauna (богиня плодородия – мўл хосиллик маъбудаси), lactation < Lat. lactation (образование молока – сутдорлик'), etc.

The word immunity entered the English lexicon from Latin at the end of the 14th century, its meaning “liberation”. At the same time, at the end of the 19th century, the special medical meaning immunity — “protection from disease” — also appeared.

An analysis of lexicographic sources showed that many lexical units with a Latin source were acquired by English through the so-called guide language — Old French.

Undoubtedly, such a fact can easily be explained by the dominance of the French language after the Norman invasion of England, which could not but affect the evolution of the national English language. For example, through the Old French language such words as: abuse – чрезмерное использование – ортиқча фойдаланиш < Old Fr. abus < (XIV) Lat. abusus (потребление, ‘злоупотребление’ – сувъистемол); accident – ущерб – зарар, авария – фалокат < Old Fr. accident < (XII) Lat. accidentem (случайность – тасодифлик); < Old Fr. branche < (XII) Lat. branca (след, выступ – из, бўртиш); buffer – буфер < Old Fr. bufe < (XVI) Lat. būfalus (дикий бык – еввойи хўкиз); damage – вред, ущерб – зарар < Old Fr. Damage (XIII) Lat. damnum (потеря, повреждение – йўқотиш, зарарланиш).

The analyzed material shows that in the studied English-language environmental terminology there are not only terminological units, the bases of which refer to the Latin original source, but also neologisms, designed to name new concepts from Latin components. The following lexical units belong to this etymological class: subfamily (sub + family) – подсемейство – кичик оила, semifrutex (semi + frutex) – полукустарник – чала бута, supersaturation (super + saturation) – перенасыщение – ортиқча тўйиниш, supervision (super + vision) – надзор – назорат.

The acquired linguistic units of Greek origin account for 12% of the words. Examples are the following lexical units: metabolism (обмен веществ – модда алмашинуви) < metabole (изменение – ўзгариш), microbe (микроб) < Gr. micros (крошечный – майда), neuston (плавающий – сузувчи) < Gr. neustos, biota (жизнь - ҳает) < Gr. taxis (разделение – бўлиниш),

< Gr. *clíмах* (возрастание – ўсиб бориш), *decline* (снижение – пасайиш) < Gr. *klínein* (отклонение – оғиш), etc.

The other part (31%) of the acquired words of the Greek original source penetrated into English through Latin and French. The lexical unit *cistern* can be considered a striking example of borrowing of this kind. Its appearance in English terminology can be represented as the following chain: Gr. *kiste* (ящик, коробка – кути) > Lat. *cisterna* > Old Fr. *cisterne* > Eng. *cistern*.

The term *gulf* is derived from the Old French *gaul* ‘*golf*’ (> Old French *golf* ‘whirlpool’), which in turn is derived from the Latin *colfos*, borrowed from the Greek (> Greek *kolpos* ‘gulf’).

Among the terminological units belonging to this etymological type, words were identified (2.6%), formed by combining two roots of Greek origin to verbalize new universals. As examples, the following linguistic units were identified: *actinomycete* (лучистые грибы – шохланувчи кўзикоринлар) < (*aktin* луч + *mykes* ‘гриб’), *dendrochronology* (дендрохронология) < (*dendro* – дерево – дарахт + *chronology* – учение о времени – вақт ҳақида таълимот), etc.

It is noteworthy that hybrid terminological units (10.7%) were also found among the complex-structured words. The terms of this etymological category were distributed into two classes: 1) lexical units, which have the following structure – Greek element + Latin element: *biodiversity* (биологическое разнообразие – биологик хилма-хиллик) < (Gr. *bios* – жизнь – ҳаёт + лат. *diversitas* – противоположность – қарама-қаршилик) < (Gr. *agros* – поле – дала + лат. *forestis* – на открытом воздухе – очик ҳавода), etc; 2) языковые единицы, образованные по следующей схеме – Gr/Lat. элемент + исконный компонент: *drainpipe* (водосток – сув оқими), *rainforest* (тропический лес – тропик ўрмон) < (Eng. *rain* – дождь – емғир + лат. *forestis* – на открытом воздухе – очик ҳавода), *roughage* (сырье – хомаше) < (Eng. *rough* – грубый – дағал + лат. *aetatem* период жизни – ҳаёт даври), etc.

Conclusion

The etymological study of English-language terminology of ecology shows that the main foundation of the lexical fund consists of acquired terminological units, among which the words of Latin source occupy the first place.

The obvious quantitative predominance of borrowed units of special vocabulary over native ones is caused by linguistic peculiarity, which is expressed in diachronic development of English (in the course of such development the influence of Latin, Greek and Old French languages acquires a special role). The extra-linguistic side equally acts as the most important reason for the mass borrowing of words. This fact is evidence of the fact that the evolution of ecological scientific thought was parallel to the evolution of related scientific fields: biology, physics, geography, climatology and other sciences.

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