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МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ

# НАУКОВИЙ ЧАСОПИС

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ІМЕНІ МИХАЙЛА ДРАГОМАНОВА



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## CONTEMPORARY UKRAINIAN COMPUTATIONAL DICTIONARIES: HISTORY, ACHIEVEMENTS, AND CHALLENGES

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### **Abstract**

*The article deals with the factors that led to the emergence of Applied Linguistics, Computational Linguistics, and Computational Lexicography – these are the processes of global digitalization of the world, the expansion of the scale of the scientific and technical revolution in the field of information systems and computer communication, the formation of the knowledge industry, requests on the development of radically new means of creating, storing, transforming and searching for information, as well as the integration of scientific fields. It is noted that at the beginning of the 21st century, lexicography incorporated centuries-old experience of theoretical linguistics and practical linguistics in the works of lexicography, and on the other hand, it received unprecedented development prospects associated with the use of computer technologies. It is emphasized that the social significance of lexicographic products is currently growing steadily. Modern science strives to embody all aspects of acquired knowledge in dictionary form, because dictionaries not only record the totality of certain knowledge, but also serve as a reliable tool for scientific mastering of reality. The works of Ukrainian and foreign scientists on the specific topic were analysed. It has been proven that computational dictionaries as a type of social, research or educational communication are the most popular reference materials, a source of access to any type of information (technical, encyclopaedic, linguistic, etc.)*

due to the fixation of the modern level of knowledge, completeness, accuracy, reliability, a systematic approach to the organization and presentation of knowledge, accessibility, extreme “comfort” for use, etc. Dictionary works are also the goal and result of scientific work on linguistic and technical issues.

**Keywords:** Applied Linguistics, Computational Linguistics, Computational Lexicography, dictionaries.

### **1. Introduction.**

Thanks to the processes of global digitalization of the world, “expanding the scope of the scientific and technical revolution in the field of information system and computer communications, the formation of the knowledge industry” (Shyrokov, 2011), requests on the development of radically new means of creating, storing, transforming and searching for information, as well as the integration of scientific fields, led to the emergence in the 20th century of Applied linguistics and Computational Linguistics, on the directions of which is Computational Lexicography. Currently, the mentioned scientific and practical areas of information technology are dynamically developing and are increasingly becoming part of our life.

At the end of the last century M. Peshchak (1999, p. 6) proved the interdependence of the development of language and linguistic science with the development of technology and engineering and technical theory about the production practice of society, she analysed the processes of such state of development of the literary language, when its use is transferred from the sphere of mass media (printing, radio, television, cinema, etc.) into the field of human-machine communication – computer automation of intellectual social activity. Here, the literary language, being by nature an exclusively humanitarian phenomenon, begins to work successfully in substance and in the technical field.

At the beginning of the 21st century, lexicography emerged as a direction of human activity, which, on the other hand, conceptualized and embodied in the works of lexicography the centuries-old experience of the theoretical acquisitions of theoretical linguistics and practical linguistics in the works of lexicography, and on the other hand, it received unprecedented development prospects associated with the use of computer technologies. The social significance of lexicographic products is steadily growing. Modern science seeks to embody all aspects of acquired knowledge in dictionary form; dictionaries not only record the totality of certain knowledge, but also serve as a reliable tool for scientific mastering of reality (Shyrokov, 2011, p. 3).

Applied and Computational Linguistics, and together with Computational Lexicography, “researching and developing the technology of constructing linguistic systems, make it possible to significantly increase labour productivity in the most diverse areas of social production, significantly speed up to the processing of linguistic information” (Partyko, 2008, p. 12).

Ukrainian scientist A. Zahnitko (2015, p. 26) notes that the modern system of linguistic sciences is uneven, covering classical theoretical linguistics, where the main areas of study are related to the consideration of phonology, morphology, syntax. Lexical semantics, to which modern scientific-linguistic paradigms have added cognitive linguistics, functional linguistics and generative linguistics; descriptive linguistics, which includes anthropological linguistics, evolutionary linguistics (comparative-historic linguistics, etymology), phonetics and sociolinguistics, and Applied linguistics is computational linguistics, mathematical linguistics, forensic linguistics, legal linguistics, language assessment and teaching methods / Language development), prescriptive linguistics, neurolinguistics, psycholinguistics, stylistics, etc.

## **2. Literature Review.**

In Ukraine, T. Gryaznukhina, A. Zahnitko, N. Darchuk, Ye. Karpilovska, N. Klymenko, V. Perebiynis, M. Peshchak, V. Rusanivskiyi, N. Snizhko, O. Taranenko, V. Shyrokov and others have made significant improvements to the development of the theoretical and applied foundations of compiling computational dictionaries.

A. Zahnitko determined the status of Applied linguistics at the current stage of the development of fundamental and practical sciences, revealed the interaction of this science with Computational linguistics and Computational lexicography, outlined two vectors of application for Applied linguistics: practical directions related to language learning, – lexicography, Linguistic didactics, terminology, translation studies, and directions related to practical functioning, – Computational linguistics with its main tasks of machine translation, automatic speech recognition, character recognition, automatic data editing, construction knowledge management systems, creation of electronic dictionaries, thesauruses, ontologies, corpus linguistics, as well as linguistic expertise and the science of organizing and standardizing scientific and technical terms (Zahnitko, 2015, p. 26). He also revealed the functions of language at the modern stage of development. Thus, “the following scientific disciplines are primarily oriented to the optimization of the communicative function: translation theory, machine translation, theory and practice of native and non-native language teaching, theory and practice of information and search systems, creation of informational (broader – artificial) languages, coding theory. Research in sociolinguistics (in particular, the study and justification of language policy), orthography and orthography, the theory of influence, political linguistics is correlated with the optimization of the social function of language (the communicative part). To optimize the epistemic (epistemological) function-oriented lexicography (in particular, Computational), research on terminology, corpus, and field linguistics. Optimization of the cognitive function of language is directly correlated with studies in Computational linguistics, psycholinguistics and aphasiology, quantitative linguistics, “linguistic criminology”. Applied linguistics can be considered in the field of means of optimizing the functioning of language as a means of transmitting information. Here, translation studies dimensions come first (ibid., p. 26).

N. Pushyk analysed the content and close connection of Computational linguistics and artificial intelligence, singled out their interaction and justified from a linguistic point of view the need for a detailed study of Computational linguistics and the development of artificial intelligence. In particular, she noted that “language is closely and inextricably linked with thinking, concepts, categories, and symbols reflect the results of cognition, therefore the study of the laws of the existence of natural language is an important direction of artificial intelligence research, which continues the traditions of Computational linguistics and requires further interdisciplinary development. Key research in this field is devoted to the problems of comprehension, speech production, language learning, which reflect the classical tasks of artificial intelligence, such as perception, communication, knowledge, planning, thinking, and learning. N. Pushyk (2021, pp. 151–155) considers that the most important achievements in the field of Computational linguistics are: 1) automation of compilation and linguistic processing of machine dictionaries; 2) automation of the process of detecting and correcting errors when entering text into a computer; 3) automatic indexing of documents and information requests; 4) automatic classification and abstracting of documents; 5) linguistic provision of information search processes in monolingual and multilingual databases; 6) machine translation of texts from one natural language to another; 7) construction of linguistic processors that ensure communication of users with automated intelligent information systems in natural language or language close to natural; 8) extraction of factual information from differ texts.

V. Shyrov, the founder and director of the Ukrainian Language and Information Fund of the National Academy of Sciences of Ukraine, described the cognitive, linguistic and system engineering principles of modern Computational lexicography, revealed the phenomenology of the lexicographic effect in information systems, noted modern software tools used in Computational lexicography, explained the method and basics of the formation of virtual lexicographic laboratories – an effective and promising instrumental means of supporting modern lexicography. He singled out four urgent and important problems of modern lexicography: the first is the problem of updating fundamental lexicons. After all, large dictionaries are, of course, exemplary lexicographic objects, created by large teams of highly qualified specialists; the second is the need to transfer the general cultural potential, as well as for use in automatic information processing systems, the third is the use of dictionaries in the formation of linguistic components of conceptual knowledge representation systems (such as ontology) and their use in knowledge mining tools; the fourth is the solution to the problem of multilingualism, which has become especially acute in the era of globalization and increasingly insistently requires powerful and flexible lexicographic tools for its solution (Shyrov, 2011, p. 6).

S. Fokin considered the types, structure, characteristics, application of computational dictionaries, fundamental differences between electronic and paper lexicographic works. The scientist revealed the features and advantages of using bilingual and monolingual translation, onomasiological, terminological dictionaries, electronic concordances, auxiliary programs: text editors, checking the quality of translation work, natural language processing in the artificial intelligence system, etc. – precisely in the translator’s activity (Fokin, 2019).

N. Snizhko claims that “the beginning of the 21st century is a period of active establishment of the methodology of integral linguistic research, systematization of knowledge about the world and languages in integrated lexicographic environments”. The purpose of modern integral linguistic research is to clarify the development of Ukrainian conceptualization and categorization of reality, modelling of language and conceptual pictures of the world, and perception. Traditional interpretative lexicography, based on the theory of systematic arrangement of vocabulary, forms the basis of the formation of the leading directions of integral linguistic research. It is promising to develop integrated lexicographic systems, which concentrate various aspects of linguistic and micro-scientific data, as evidenced by such fields as lingoculturology, lingoconceptology, sociolinguistics, etc., the novelty of modern linguistic Ukrainian studies is in the active development of integral lexicographic environments (systems) capable to concentrate on rich multifaceted information about the word and confirm it with illustrative material (Snizhko, 2017, pp. 47–49).

### ***3. Aims and Objectives.***

The aim of the article is to study the achievements, understand the potential and outline the prospects of Ukrainian Computational Lexicography as a modern innovative resource. The objectives of the work are:

- to investigate the latest publications of Ukrainian and foreign scientists in the field of Applied Linguistics, Computational Linguistics and Computational Lexicography;
- to examine current state, possibilities, features of Ukrainian Computational dictionaries;
- to analyse ways of development and improvement of the specified lexicographic works.



#### **4. Methodology.**

We have analysed the works of Ukrainian and foreign scientists on Applied linguistics, Computational linguistics, Computational lexicography, analysed Ukrainian computational dictionaries, etc. Based on this, we described the current state, tasks, peculiarities, and prospects for the development of Computational lexicography and electronic dictionaries in Ukraine.

#### **5. Results and Discussion.**

Computational dictionaries as a type of social, research or educational communication are the most popular reference materials, a source of access to any type of information (technical, encyclopaedic, linguistic, etc.) thanks to the fixation of the modern level of knowledge, completeness, accuracy, reliability, a systematic approach to the organization and presentation of knowledge, accessibility, extreme “comfort” for use, etc. Dictionary works are also the goal and conclusion of scientific work on linguistic and technical issues.

Modern English computational lexicography is presented in;

- explanatory dictionaries of the English language: Oxford Learner’s Dictionary, Cambridge Learner’s Dictionary, Collins COBUILD Student’s Dictionary, Longman Dictionary of Contemporary English, The Living Dictionary, etc.;
- educational dictionaries for certain groups of users;
- terminological dictionaries, especially on finance, business, banking, insurance medicine, logistics, and so on;
- dictionaries of slang, new words, the language of writers and politicians, phraseological units, etc.;
- dictionaries for entertainment, “the main object of which is the creation of reference books for hobbies and crosswords, as well as encyclopaedia dictionaries for movies and computer games, which are related together with new gaming and television projects” (Kalymon, 2019, p. 116).

The most authoritative and powerful educational British publishing houses are Cambridge University Press, Oxford University Press, Chambers, Collins, Longman, Macmillan, Pearson.

Scientists claim that “philological science over the centuries-old history of its existence and development has developed systematic approaches to define the concept of a dictionary. In the narrow sense, a dictionary (lexicological work) is a set of linguistic units arranged in a certain order, where their meaning is disclosed, various information is provided about them or a translation into another language, or information is included about the objects, phenomena, and facts that they denote. If the dictionary is understood as the result or research work on a certain problem, as the development of a certain linguistic problem or as a tool for solving new tasks, then the concept of “dictionary” expands in the direction of indicating a systematized collection of knowledge about a certain problem and acquires well-defined connotations to cognitive structures of the type of knowledge models (Shyrokov, 2011, pp. 15–16).

The theoretical lexicography provides the definition of a dictionary as a specific linguistic and informational object, into which the linguistic substance “tries” to be embodied in the process of unfolding the “subject – object” and “form – content” relations fundamental to language (ibid., pp. 3–4).

Computational lexicography has a powerful potential due to modern technical innovative methods and techniques. It has incomparable advantages over traditional dictionaries: it is manifested in the possibilities of searching not only by the title word, but by

any specified parts, active use of hyperlinks, compilation of dictionaries with previously unseen parameters as new lexicographic objects, etc.

Currently, the following powerful centres of research and creating of computational lexicographic works are known in Ukraine: the Ukrainian Language and Information Fund of the National Academy of Sciences of Ukraine, Laboratory of Computational Linguistics of the department of Contemporary Ukrainian language of Kyiv National University named after T. Shevchenko, Department of Lexicology and Computational Lexicography of the Institute of Ukrainian language of the National Academy of Sciences of Ukraine, Lviv Polytechnic University.

O. Sydorenko notes, the Department of Structural and Mathematic Linguistics of the Institute of Linguistics named after O. O. Potebnia of the National Academy of Sciences of Ukraine may be called the founder of Computational Linguistics in Ukraine. Here, the Morpheme-Word Formation Fund of the Ukrainian language was created, which has a branched architecture and consists of three main subfunds: 1) a text base, which is currently equipped with procedures for orthographic control of texts, analysis of their morphological, syntactic and semantic structure; 2) the general register of Ukrainian words, based on the materials of the 5 most authoritative Ukrainian dictionaries-sources; 3) text processors performing morphological, syntactic and logical-semantic analysis of actual materials.

Based on the materials of the fund, the computer-based: “Словник символних моделей морфемної будови слова” (Dictionary of symbolic models of the morpheme structure of the word), “Словник афіксальних морфем української мови” (Dictionary of affixal morphemes of the Ukrainian language), also published in paper form, “Кореневий гніздовий словник української мови” (Root Nest Dictionary of the Ukrainian language), “Ідеографічний словник іменників української мови” (Ideographic dictionary of nouns of the Ukrainian language), “Ідеографічний словник дієслів переміщення української мови” (Ideographic dictionary of verbs of movement of the Ukrainian language) were created (Sydorenko, 2010, pp. 524–528).

The Ukrainian Language and Information Fund of the National Academy of Sciences of Ukraine under the leadership of V. Shyrokov started in 1994 and coordinates the program to create a series of dictionaries of a new generation – “Dictionaries of Ukraine”, which already has more than 70 works. Among them, it should be noted the first full-scale electronic dictionary of the Ukrainian language in Ukraine – the integrated lexicographic system “Dictionaries of Ukraine” appeared in 2001. A CD of this system was released, which has an alphabetical construction principle and a search system with a volume of about 152,000 tokens (also published in print). Users can work in 5 modes: “paradigm”, “transcription”, “phraseology”, “synonymy” and “antonymy”. Each of these sections is based on several of the most authoritative dictionaries of the corresponding variety. 11 versions of the specified system have been commercially released on laser discs since 2001.

Under the leadership of V. Shyrokov, the National Dictionary Base of Ukraine is being created – the development of an information-linguistic system and a linguistic corpus, which has a volume of more than 200 million words and forms and is the basis of modern lexicographic and linguistic research.

The linguistic portal mova.info presents:

- frequency dictionaries;
- “Електронний граматичний словник української літературної мови (словозміна) I етап” (Electronic grammatical dictionary of the Ukrainian literary language (word change) 1 stage);
- “Синтез англійських парадигм” (Synthesis of English paradigms – the electronic program was created for English nouns and verbs);

- “Електронний словник мови Тараса Шевченка” (Electronic dictionary of the language of Taras Shevchenko);
- “Відкритий словник” (дискусійна платформа) (Open dictionary (discussion platform));
- “Перекладний чотиримовний словник наукової термінології” (Translated four-language dictionary of scientific terminology);
- “Глоса” (Glosa);
- “Труднощі англійського слововживання” (Difficulties of English word usage);
- “Українсько-італійський словник” (Ukrainian-Italian Dictionary);
- “Словник порівнянь” (Dictionary of comparisons);
- “Тезаурус з комп’ютерної лексикографії” (Thesaurus of computational lexicography);
- “Короткий українсько-сербський словник сполучуваності слів” (Short Ukrainian-Serbian word conjugation dictionary);
- “Словник іншомовних слів” (Dictionary of foreign words) etc.

### 6. Conclusions.

Computational lexicography is closely related and successfully interacts with such modern sciences as Applied linguistics, Computational linguistics, Mathematical linguistics, Artificial intelligence, etc., as well as with Cognitive, Functional, Generative, Evolutionary linguistics, and so on.

At the beginning of the 21st century, Lexicography embodied the century-old experience of theoretical and practical Lexicography in the lexicographic works. Computational lexicography successfully combined these achievements with the latest contemporary computer technologies. Thus, Computational lexicography has much greater opportunities in compiling modern lexicographic works, reference books, dictionaries of new generation, creating products according to many given parametric characteristics.

Computational lexicography is rapidly developing and constantly improving: its methods, approaches, technologies, techniques, modelling, etc. are changing due to contemporary challenges, aims, objectives and requests.

Recently, the field of application of computational dictionaries in Linguistics, Corpus linguistics, Linguistic didactics, Terminology, Translation studies, as well as in machine translation, automatic recognition of speech and symbols, data editing, construction of knowledge management systems, etc. has been expanding.

Significant achievements of contemporary Ukrainian studies in the field of Computational lexicography are: National Dictionary Base of Ukraine, Integrated lexicographic system “Dictionaries of Ukraine”; computational dictionaries etc.

Despite the achievements of Computational lexicography in Ukraine, the branch faces the tasks of improving existing works, as well as creating new dictionaries as objects with various parametric characteristics that cannot be compiled in a paper version.

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### Анотація

У статті розглянуто чинники, що призвели до появи прикладної лінгвістики, комп'ютерної лінгвістики і комп'ютерної лексикографії, – це процеси глобальної діджиталізації світу, розширення масштабів науково-технічної революції у галузі інформаційних систем та комп'ютерних комунікацій, становлення індустрії знань, запити на розвиток кардинально нових засобів створення, зберігання, перетворення й пошуку інформації, а також інтеграція наукових галузей. Зазначено, що на початку ХХІ століття лексикографія втілила у творах словникарства багатовіковий досвід теоретичних надбань лінгвістики і практичного лексикографування, а з іншого боку, – отримала досі небачені перспективи розвитку, пов'язані із застосуванням комп'ютерних технологій. Наголошено, що наразі відбувається неухильне зростання соціальної значущості лексикографічної продукції. Сучасна наука прагне втілити у словниковій формі всі аспекти отриманих знань, тому що словники не лише фіксують сукупність певних знань, але й слугують надійним інструментом наукового освоєння дійсності. Проаналізовано роботи українських і зарубіжних учених із зазначеної теми. Доведено, що комп'ютерні словники як тип соціальної, дослідницької або навчальної комунікації є найпопулярнішими довідниковими матеріалами, джерелом доступу до будь-якого виду інформації (технічної, енциклопедичної, лінгвістичної та ін.) завдяки фіксації сучасного рівня знань, повноті, точності, достовірності, системному підходу до організації й представлення знань, доступності, надзвичайній “комфортності” для користування тощо. Словникарські праці також є метою й підсумком наукової роботи над лінгвістичними і технічними проблемами.

**Ключові слова:** прикладна лінгвістика, комп'ютерна лінгвістика, комп'ютерна лексикографія, словники.

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## FORMATION AND DEVELOPMENT OF THE ALPHABET OF THE CRIMEAN TATAR LANGUAGE: A HISTORICAL OUTLINE

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### **Abstract**

*The article deals with the formation of the modern alphabet of the Crimean Tatar language. Materials on the history of the Crimean Tatar language, the formation of the literary language, and the development of the alphabet are presented. The scientific and methodological basis of our investigation became the works of leading historians, linguists who were engaged in general, Crimean Tatar linguistics, issues of the history of the language. Taking into account the historical context, the main key elements of the formation and development of Crimean Tatar graphics were outlined. The research used the works of linguists, historians, writers, publicists and cultural figures, such as Bohdan Azhniuk, Alina Dochu, Tyshchenko-Monastyrskya Oksana, Afize Emiramzayeva, Arnautova Ayshe, Ismail Gasprinskyi, Riza Fazylov, Safter Nagayev, Ismail Kerimov, Ayshe Kokiyeva. The article reveals the formation of the Crimean Tatar alphabet from the 12th century to the present, taking into account the history of the development of the Crimean Tatar language. In this regard, each episode of the history of the language during the period of use of each individual alphabet in the Crimean Tatar language was separately presented and described. The article outlines and reveals a range of problems and tasks for a thorough study of the Crimean Tatar language in a historical context. Much attention is paid to the problem of the transition from the Cyrillic alphabet to the Latin alphabet. It is noted that this problem is or was relevant not only for the Crimean Tatar language but also for other Turkic languages. The influence of historical events and linguistic processes in the language on the state of the modern alphabet of the Crimean Tatar language is determined.*

**Keywords:** Crimean Tatar language, Turkic languages, graphics, alphabet, history.

### **1. Introduction.**

The general problem of the history of the Crimean Tatar language is sociopolitical, because the language was often under pressure and developed in conditions of sociopolitical oppression. Just like the Ukrainian language, the Crimean Tatar language was tried to be

destroyed by the Russian Empire, the USSR and the modern Russian Federation. In the course of history, many speakers of the language were destroyed, the Crimean Tatar language and literature suffered, and the Cyrillic alphabet was imposed. Today, the problem of transition to a new alphabet is more relevant than ever for the Crimean Tatar language. It consists in the absence of a generally accepted alphabet. Linguists still cannot agree on the final version of the modern alphabet of the Crimean Tatar language.

## **2. Literature Review.**

This article contributes to the solution of this problem and makes it possible to navigate in the historical context of the alphabet, as well as to perform the following tasks: get acquainted with the history of the language, follow the process of changing the alphabet, and analyze the consequences of the transition from one alphabet to another. The practical significance of solving this problem lies in the development of a standardized alphabet of the modern Crimean Tatar language. In Crimean Tatar linguistics, there are very few works devoted to the problem of the alphabet and spelling. B. M. Azhniuk, A. R. Dochu, O. O. Tyshchenko-Monastyrskaya, A. S. Emiramzaeva, A. R. Arnautova, N. Seytyagyayev were engaged in the research of this topic in modern times. In their works, scientists note, that the Crimean Tatar language is one of the endangered languages.

## **3. Aims and Objectives.**

The purpose of the study is to investigate the history of the formation of the alphabet of the Crimean Tatar language. The main tasks are the following: to trace the history of the development of the Crimean Tatar language, to determine the historical periods of the development of the Crimean Tatar alphabet, and to analyze the influence of historical events on the Crimean Tatar alphabet.

## **4. Methodology.**

Historical sources, scientific articles and current legislation were used as a database for the research. During the research, methods of observation, description, analysis, as well as synchronic and diachronic methods were used.

## **5. Discussion and Results.**

The Crimean Tatar language is an agglutinative, analytical language that belongs to the Kipchak-Polovtsk group of the Turkic language family. It was formed on the territory of modern Crimea. It is the native language of the Crimean Tatars. According to the 2010 UNESCO classification, the Crimean Tatar language belongs to the endangered languages (UNESCO, 2010 URL: <https://cutt.ly/dwT10Te1>).

In the late 12th century – early 13th century, together with Islam, traditional Arabic script comes into common use in Crimea: د, ذ, ر, ز, ژ, س, ش, ص, ض, ا, ب, پ, ت, ث, ج, چ, ح, خ [13].

Crimean Tatar writing in Arabic script was developing, changing, and being used in manuscripts as well as in printed editions till 1883. In 1883, Crimean Tatar publicist, editor and publisher of *ترجمان* newspaper (*Terciman* – Cr. T. “translator”) Ismail Gasprinski, together with the Crimean Tatar intellectuals and his colleagues, the so-called folk teachers, started work on reformation of the Arabic script. Gasprinski considered bringing the Arabic letters to match the Crimean Tatar sounds as the main task of the reformation.

Having only three letters to design vowels, the Arabic script did not correspond to the phonetic order of the Crimean Tatar language. So, Gasprinski considered the increment of the vowel letters amount essential.

From 1884 to 1914, Gasprinski published in *Terciman* several articles named *The New Orthography*, *The Sound Orthography* (Gasprinski, Terciman 1884–1914), etc. In these articles, he analyzed in detail every sound in borrowings from Arabic and in Crimean Tatar words and revealed the characteristic features of these sounds with deep knowledge of the linguistic phenomena of the time. Despite his efforts, the Arabic script still was able to keep its steady position.

Only in 1920 did the progressive intellectuals approach the idea of creating a new alphabet again. The expedience of refusing the Arabic script and transitioning to the Latin script because of the phonetic limitation and overly complexity of the former becomes obvious to the nation.

In 1928, the First All-Crimean Scientific Conference of the Crimean Tatar Language was held in Simferopol. The main report of the conference was *The Basis of Orthography of the Crimean Tatar Literary Language* (Choban-zade, 1928) by B. Choban-zade. Apart from that, *History of the Crimean Tatar Orthography of the Period of Arabic Script* (Ayvazov, 1928) by A. Ayvazov and *The Mixed Dialect As a Basis for the Crimean Tatar Literary Language* (Ipci, 1928) by Umer Ipci were also presented.

It was especially sharply discussed which dialect should become a basis for the literary language. After thoroughly studying and analyzing a respectable amount of the vocabulary and phonetics, the mixed dialect of the Crimean Tatar language (*orta yolaq*) was unanimously accepted as a basis for the literary language. Participants of the Conference led by B. Choban-Zade approved a special orthography commission. After the Conference, research on the Crimean Tatar vocabulary was conducted; the commission members, together with other linguists, did a thorough job of improving the Crimean Tatar orthography, establishing a new compilation of the Crimean Tatar orthography and punctuation. Fight against the orthographic disorder, which was shaking up the general orthography system and causing a large number of difficulties for publishing houses and school teaching, was the main task of the commission, which saw the publishing of the first compilation of the orthography and punctuation rules as a principal means of dealing with misrule. The Crimean Tatar language did not have such a compilation, so working on it was seen as the most important and necessary.

In the process of preparing for the transition to the new alphabet, many issues related to the structure of the language arose. In 1929, Second All-Crimean Scientific Conference of the Crimean Tatar Language was held in Simferopol, where such reports as *The Ways of Development of the Crimean Tatar Language* (Nedim, 1929) by M. Nedim, *The Orthography of the Borrowings from Arabic, Persian, And Other Languages* (Ipci, 1929) by U. Ipci, *The Terminology Issues in the Crimean Tatar Language* (Latifzade, 1929) by A. Latifzade, also problems related to publishing the terminological vocabularies and *The Spelling Dictionary* were discussed. Apart from that, reports about the course of the expedition work of gathering language material and folklore were also presented.

At the Conference, the decision to transition to the new alphabet based on the Latin script was made. In the same year, an official decree of the Crimean Government about the transition to the new alphabet was issued.

The new alphabet contained 32 letters, among them 24 consonants and 8 vowels: A a, B b, C c, Ç ç, D d, E e, F f, G g, Q̣ q̣, H h, J j, İ i, K k, L l, M m, N n, Ŋ ŋ, O o, Ø ø, P p, Q q, R r, S s, Ş ş, T t, V v, X x, U u, Y y, Z z, Ẓ ẓ, Ъ ъ [13].

In 1935, the Third All-Crimean Scientific Conference of the Crimean Tatar Language was held in Simferopol. This Conference agenda included such issues as ways of development of the Crimean Tatar literary language, bases of the grammar of the Crimean Tatar language, main foundations of the structure of the literary language orthography, and

main foundations and rules of punctuation of the literary language. Especially significant reports were *About the Grammar Basics* (Kurkci, 1935) by U. Kurkci and *About Orthography* (Bekirov, 1935) by M. Bekirov. O. Samoylovich and N. Dmitriyev were participants in the Conference and also took a great part in preparing and arranging these reports. Exactly in these papers nature of the grammar order and peculiarity of the orthography rules of the Crimean Tatar language were revealed. In 1936, *The Spelling Dictionary* and training manuals were published for the first time.

In 1938, the Cyrillic alphabet was forced on the Crimean Tatar people as well as on other Turkic peoples. The order of the People's Commissariat of Education of the RSFSR No. 989 dated June 22, 1938, approved "the presented project of the Crimean Tatar alphabet and the list of basic rules of spelling based on the Russian language with amendments made to it by the Institute of Language and Writing of the Academy of Sciences of the USSR." The same year, in June, by resolution of the Central Executive Committee and the Council of People's Commissars of the Crimean ASSR, information was published on the introduction of a new alphabet of the Crimean Tatar language which consisted of 37 letters, among them 27 consonants and 10 vowels: А а, Б б, В в, Г г, Гь гь, Д д, Е е, Ё ё, З з, Ж ж, И и, Й й, К к, Кь кь, Л л, М м, Н н, Нь нь, О о, П п, Р р, С с, Т т, У у, Ф ф, Х х, Ц ц, Ч ч, Дж дж, Ш ш, Щ щ, Ъ ъ, Ы ы, Ь ь, Э э, Ю ю, Я я [13].

The Crimean Tatar orthography is based on the phonetical principle. However, the rules of spelling of borrowed words were established together with the alphabet. Thereby, borrowings from the Russian language are written considering their Russian spelling.

The main phonetical rule of the Crimean Tatar language is synharmonism. There are two distinguished kinds of vowel harmony: palatal and labial. The essence of the former is the fact that only those affixes can be attached to a root which contains palatal vowels. Every grammar category chooses the affix version which suits the root vowel. There can be no such unity in borrowings from the Russian language thus affix attached to a root agrees with the last sound of the root, for instance: *колхоз-джы* (collective farmer), *ракета-лар* (rockets), *комитет-ке* (committee), etc.

In 1938, due to the creation of an alphabet based on the Cyrillic alphabet of the Russian language, new orthography rules were formed and accepted, and orthography manuals were published. A compilation of rules should have become the next step in the literary language development because the mentioned institute admitted the presence of many inaccuracies and false positions in the orthography based on the Cyrillic alphabet, but additional work in this direction was not conducted.

Orthography reformation had a great value for the literary language development and its approximation to the dialects. Nowadays, the difference between the southern and northern dialects is not so large, and it lets native speakers understand each other better.

Punctuation regulations of the literary language were formulated already in 1892 by I. Gasprinski. Modern rules of the Crimean Tatar orthography and punctuation were accepted at the Second All-Crimean Scientific Conference of the Crimean Tatar Language. However, nowadays, native speakers mostly use rules of the Russian orthography and punctuation, again, because of the impact of the Russian language, which is strengthened by the usage of the Cyrillic alphabet of the Russian language.

Also, Cyrillic graphics incorrectly convey the sounds of the Crimean Tatar language. For example, sounds uncharacteristic of the Russian language. The sounds [q] and [ɲ] in Cyrillic are denoted by combinations of two letters: the consonants [к] and [н] with a solid sign [ь] – [кь][нъ] taken from the Russian alphabet, [y], [ю]; [o], [ë] are selectively used to indicate [ü] and [ö], depending on the word. Thus: *kün* – *кунь*, *ötmeк* – *отмек*, but *ömür* – *омюр*, *söz* – *сөз*. The sound [â] softens the preceding consonant sound (except [t], [d], [n],



[q], [ğ]), while in Cyrillic it is denoted as [я], which is fundamentally incorrect, because the rules are violated of synharmonism: *kâde* – *кяде*. At the same time, the combination of the letters *ya* is also conveyed using the letter [ı]: *yaptım* – *яптым*, thus [â] and [ya] are equated, which is a mistake. The combination *yo* is also conveyed by “ë”: *yoq* – *ёкъ*, equating [ö] and [yo].

The sound [c] is denoted by two letters [дж]. And since there is no such sound in the Russian language, there were precedents of reading by people who have a low level of command of the language [дж] separately by letters, for example: *oca* – *оджа*. For one letter “e” in the Cyrillic alphabet there are two letters [е], [э]. Of course, there are two different sounds, but their difference is only phonetic and does not affect synharmony, respectively, the affixes added to the word, so the presence of two “e” only confuses people with a low level of language proficiency. In contrast to the need to enter two letters to indicate “h”, the hard one is *hıyar*, and the aspirated one is *Allah*. It depends on which affix is used in the word: hard [h] – *Allahtan*, aspirated [h] – *Allahdan*. When using Cyrillic graphics, under the influence of the Russian language, average speakers make mistakes, which consist in applying the rules of the Russian language to Crimean Tatar, for example: instead of “*yahşı*” (*yahşı*) they write “*yahshi*”, due to the rule of the Russian language: *zhi-shi* is written through [i].

Also, as we can see, the Cyrillic alphabet overloads the word with letters, which makes it more difficult to read. In addition, the most frequent words in any language are words with fewer letters: *кырымтатарларданъ* – *qırmıttatarlardañ*, *джавлукъларнынъ* – *cavluqlarnıñ*, *топрагъынъызгъа* – *toprağınızğa*.

Latin, in turn, facilitates interaction with the specific sounds of the Crimean Tatar language, and also helps to perceive Crimean Tatar as another language, distinguishing it from Russian. The Crimean Tatar language has a lot of Russian loanwords, and the Cyrillic alphabet only contributes to the emergence of new ones. The final transition to the Latin alphabet will help stop this process.

On June 26, 1991, the Second Qurultay of the Crimean Tatar People (Crimean Tatar Resource Center, 2023 URL: <https://cutt.ly/zwT0x0kS>), national gathering, the higher representative authorized body of the Crimean Tatars, was convened where the decision to transition of the Crimean Tatar language to the Latin alphabet of a new model was made.

This was a formal decision with rather legal than linguistic power. At the same time, it became an official reason for the change of the script. Work on the alphabet was conducted by enthusiastic linguists and special councils of Crimean Engineering and Pedagogical University and Tavrida National V. I. Vernadsky University till 2014. At this time, several various versions of the alphabet based on the Latin script were suggested, but none met the needs of the Crimean Tatar language to the full extent, so linguists have been disputing as to what should be the decisive alphabet of the Crimean Tatar language.

In 2014, the Russian Federation occupied Crimea, and in September 2014, Law No. 165-FZ dated 11.12.2002 (Gazeta.ua, 2014 URL: <https://cutt.ly/bwT0nmnL>) came into force which prohibits using any other alphabet except Cyrillic. After that, any further work on creating a unified alphabet of the Crimean Tatar language based on the Latin script was frozen.

On September 22, 2021, the Verkhovna Rada of Ukraine adopted a law about codification of the Crimean Tatar language on the basis of the Latin script. De facto, this also is a formal decision that ratifies the Latin alphabet as the main alphabet of the Crimean Tatar language because work on it is not finished yet. Although, from the legal point of view, this law is very important, both from a linguistic point of view and from a legal point of view.

The Cabinet of Ministers of Ukraine decided:

1. To agree with the proposal of the Ministry of Reintegration of the Temporarily Occupied Territories and the Mejlis of the Crimean Tatar People regarding the approval of the alphabet of the Crimean Tatar language based on the attached Latin script.

2. The Ministry of Education and Science, the Ministry of Culture and Information Policy, the Ministry of Reintegration of the Temporarily Occupied Territories together with the interested central and local executive bodies with the participation of local self-government bodies, the Mejlis of the Crimean Tatar people to take measures to: 1) transfer the educational process, which is carried out in the Crimean Tatar language, including textbooks, methodical materials, etc., to the alphabet of the Crimean Tatar language based on Latin graphics until September 1, 2025; 2) stimulation of the use of the alphabet of the Crimean Tatar language based on Latin graphics in other spheres of language functioning.

3. The Ministry of Culture and Information Policy, the Ministry of Reintegration of the Temporarily Occupied Territories, and the Ministry of Foreign Affairs provide comprehensive information about the alphabet of the Crimean Tatar language based on the Latin script to citizens of Ukraine, including those who live in the territory of Ukraine temporarily occupied by the Russian Federation, as well as international partners of Ukraine, in particular in the context of the International Decade of Indigenous Languages declared by the United Nations General Assembly for 2022-2032 and on the site of the United Nations Permanent Forum on Indigenous Peoples. (Verkhovna Rada of Ukraine, 2021 URL: <https://cutt.ly/awT16MAc>).

This is the alphabet prescribed in the law: A a, B b, C c, Ç ç, D d, E e, F f, G g, Ğ ğ, H h, İ i, I ı, J j, K k, L l, M m, N n, Ñ ñ, O o, Ö ö, P p, Q q, R r, S s, Ş ş, T t, U u, Ü ü, V v, Y y, Z z (Verkhovna Rada of Ukraine, 2021 URL: <https://cutt.ly/awT16MAc>).

Nowadays, a small amount of the Crimean Tatar language experts in the continental part of Ukraine still are working on the development and unification of the Crimean Tatar alphabet.

## **6. Conclusions.**

Using the alphabet based on the Arabic script, the Crimean Tatar language went a long way in developing for nearly six hundred years. When a need for change appeared, the Crimean Tatar intellectuals made a reformation within which a decision to transition to the Latin script was made. This revealed more opportunities in the educational, writing, and publishing fields. Scientists of the time were watching carefully both the new alphabet and the process of its implementation into the Crimean Tatar language. Some inaccuracies and problems were noticed while using the older model of the Latin alphabet. So, three scientific conferences were conducted with the aim of making corrections to orthography, language standardization, and defining grammar rules. This work wasn't completed, the alphabet had functioned only for 9 years which was not enough also for adapt it to meet the needs of the Crimean Tatar language. Instead, the Soviet government in 1938 forced the Cyrillic alphabet based on the Russian language with rules of the Russian language offhand pulled onto the Crimean Tatar language as an addition. It was not enough time for all Crimean Tatars to get used to the former alphabet while it was changed again. The Cyrillic alphabet had the same fate: in a year after the reformation, World War II started. Of course, no language development was possible in wartime. On May 18, 1944, Crimean Tatars were deported; in this way, the nation was divided and the language environment was destroyed. At the same time, censorship of any publications was imposed, education was prohibited, and the Crimean Tatar language came under the cancelling policy. The snowbreak began in the 60s only when it became possible to print literature and publish newspapers and books in the Crimean Tatar language based on the Cyrillic script, although there still were many

limitations. On June 26, 1991, Second Qurultay of the Crimean Tatar people was convened and the decision to transition of the Crimean Tatar language to the Latin script (the new model) was made. However, de facto, this transition took place only on paper and the majority of people were still using the Cyrillic script. Papers, books and textbooks sometimes would be published in the Latin script but only as exclusion. On February 23, 2014, the Russian Federation occupied Crimea and in half a year the law on prohibition of Latin script use came into force. Since then, the Crimean Tatar linguistic space has been divided into two vectors: in Crimea and in the continental part of Ukraine. On September 22, 2021, the Verkhovna Rada of Ukraine adopted the law on codification of the Crimean Tatar language based on the Latin alphabet.

This is a small but very important step in the history of the Crimean Tatar language. Now the task of scientists is to further work on the alphabet of the modern Crimean Tatar language based on Latin graphics. In today's alphabet of the Crimean Tatar language, adopted by the Verkhovna Rada, there is no letter [â], there is only one [h], but we need two, there are letters and sounds that scholars still argue about, for example [e], [ñ], [j]. In addition, it is necessary to carry out educational activities. Currently, 80% of Crimean Tatars use Cyrillic script in everyday life, journalism, and scientific activities. Based on historical events and the process of transition from one graphic to another, it becomes clear that not all changes in the alphabet of the Crimean Tatar language benefited it. The Crimean Tatar language actually stood still for 50 years. And the level, as we say, of the modern Crimean Tatar language remained in the state of 50 years ago. For the last 20–25 years, linguists have been working on improving the language. But, despite these innovations, now there is no reason to consider Crimean Tatar a developing language.

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### Бібліографічний опис:

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### Анотація

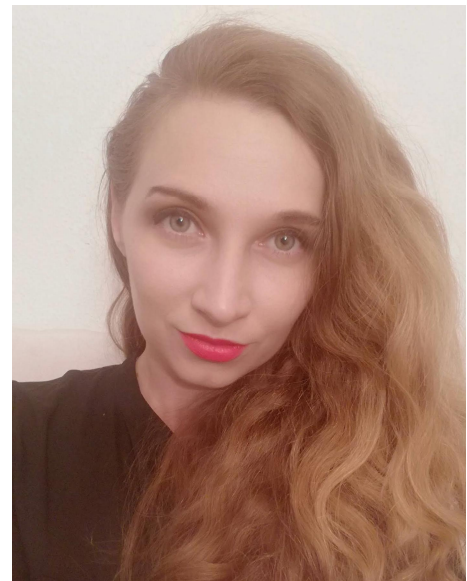
Стаття присвячена питанню формування сучасної абетки кримськотатарської мови. Представлено матеріали з історії кримськотатарської мови, утворення літературної мови, розвитку абетки. Науково-методологічною базою нашої розвідки стали роботи провідних істориків, мовознавців, котрі займалися загальним, кримськотатарським мовознавством, питаннями історії мови. З огляду на історичний контекст було окреслено основні ключові елементи становлення та розвитку кримськотатарської графіки. У ході дослідження були використані праці мовознавців, істориків, письменників, публіцистів і діячів культури, таких як Богдан Ажнюк, Аліна Дочу, Тищенко-Монастирська Оксана, Афізе Емірамзаєва, Арнаутова Айше, Ісмаїл Гаспринський, Різа Фазилов, Сафтер Нагаєв, Ісмаїл Керімов, Айше Кокієва, Наріман Сейтяг'яєв, Бекір Чобан-заде, Умер Інчі, Асан Сабрі Айвазов, Абдулла Лятіфзаде, Мамут Недім, Мемет Бекіров, Усейн Куркчі та ін. У статті розкривається становлення кримськотатарської абетки з XII ст. до сьогодні, з урахуванням історії розвитку кримськотатарської мови. У зв'язку з цим, окремо було представлено та описано кожен епізод історії мови в період використання кримськотатарською мовою окремої абетки. Стаття окреслює та розкриває коло проблем і завдань для ґрунтовного дослідження кримськотатарської мови в історичному контексті. Велику увагу приділено проблемі переходу з кириличної абетки на латинську. Зазначається, що ця проблема є або була актуальною не тільки для кримськотатарської мови, а й для інших тюркських мов. Визначено вплив історичних подій і лінгвістичних процесів в мові на стан сучасної абетки кримськотатарської мови.

**Ключові слова:** кримськотатарська мова, тюркські мови, графіка, абетка, історія.

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## ASSIMILATION OF COMMERCIAL AND ECONOMIC BORROWINGS OF TURKIC ORIGIN IN ENGLISH: ETYMOLOGY AND SEMANTIC EVOLUTION

### Bibliographic Description:

Hudz, S. (2023). Assimilation of Commercial and Economic Borrowings of Turkic Origin in English: Etymology and Semantic Evolution. *Scientific Journal of Mykhailo Dragomanov State University of Ukraine. Series 9. Current Trends in Language Development*, 26, 21–31. <https://doi.org/10.31392/NPU-nc.series9.2023.26.03>

### **Abstract**

*Linguistic interactions arise from the intricate interplay of linguistic, cultural, and historical factors, constituting a pivotal facet of intercultural communication. Of particular intrigue are the Turkic lexical components, actively woven into the linguistic fabric of diverse languages. This research article undertakes the comprehensive examination of trade and economic vocabulary within the English language, encompassing elements either stemming from Turkic origins or acquired via the conduit of Turkic languages. The article delves into the nuanced exploration of the catalysts, pathways, and timelines governing the infiltration of Turkicisms into the domain of trade and economic terminology. It intricately dissects the trajectories of morphological and word-formation assimilation, elucidating their pivotal role in lexicon augmentation and the evolution of language.*

*A paramount emphasis is accorded to etymological inquiries and the meticulous tracing of lexical lineages. An integral facet of this scholarly investigation revolves around the discernment of the influence exerted by Turkic-origin trade and economic lexicon on the molding of English language vocabulary. The article conducts a rigorous examination of the etymological underpinnings and semantic metamorphosis inherent to words such as 'kiosk', 'magazine', and 'bazaar' within the purview of the English language, alongside an exploration of their counterparts' functionality within the Turkish language.*

*Through a comparative analysis of diverse languages, it becomes evident that the phenomenon of lexical borrowing is a universal linguistic phenomenon. It stands as a defining element imbued with linguistic significance, determining the absolute or relative chronology of their integration into various linguistic systems. Turkicisms, assimilated into the lexical-semantic framework of the recipient language, augment the*

*corpus of lexical units within the English language and other linguistic contexts. They illuminate the mechanisms governing their assimilation and the degree of adaptation, all while considering the unique lexical and phonetic potential inherent to each language.*

*It is noteworthy that Turkic borrowings encompass not only words of direct Turkic origin but also lexical elements introduced into English via other intermediary languages, including Arabic and Persian. These have left their imprint on English lexicographic sources. Hence, the term 'Turkism' encompasses words integrated into the English language, whether through direct Turkic influences or indirect channels via Turkic languages, with all sharing a common Turkic phase within their historical trajectory.*

**Keywords:** Turkic borrowings, Turkicisms, assimilation, borrowing process, English language.

### **1. Introduction.**

The study of the vocabulary of any language, including English, has not only linguistic but also historical and ethnographic interest. Language reflects many processes that occur in society. However, intensified contacts between speakers of different languages lead not only to the enrichment and expansion of the vocabulary of one language but also to the displacement of a certain part of lexemes from another language, which may have functioned for several centuries, sometimes even gradually leading to the loss of its core lexicon. In this regard, it is pertinent to investigate the lexical composition of a language and to understand the relationship between its native and borrowed lexicon.

Furthermore, the inclination to explore this topic is driven by the renewed and growing interest in Eastern countries, their cultures, and languages over the past decades, especially Turkic ones. English, in one way or another, retains phonetic and semantic features of many borrowed Turkic lexemes. It allows more effective resolution of complex practical issues in the study of both English and Turkic languages through appropriate methodologies.

### **2. Literature Review.**

The process of identifying foreign and archaic lexicon in any language begins with a comparison of its lexical composition with that of both related and unrelated languages. One of the pioneering comparative linguists was Sir William Jones (1746–1794), a British linguist and Sanskrit scholar. He studied the Sanskrit language and made a significant contribution to comparative linguistics by establishing similarities between Sanskrit, Greek, and Latin languages.

In the 20th century, comparative linguistics continued to evolve, giving rise to new approaches and research methods. One of the prominent linguists of this period was Edward Sapir, an American linguist who introduced the concept of universal grammar and proposed a theory suggesting that all languages share common grammatical principles. Noam Chomsky, another American linguist, developed the theory of universal grammar, which examines linguistic structures and their shared characteristics. Joseph Greenberg, also an American linguist, formulated the theory of phoneme comparison, which became the foundation for many other comparative studies. Eric H. Lenneberg, a British linguist, developed the theory of generative phonology, which explores the sound structure of language. All of these research efforts contributed to a deeper understanding of archaic and borrowed lexicon within the English language.

The evolution of language is influenced by numerous factors, both intralinguistic (systemic changes) and extralinguistic (such as socio-political factors). Modern science increasingly focuses on the external factors shaping language, particularly the impact of societal changes. Kevin Tuite attributes these changes to the triple nature of language as a system, activity, and social education. Here, physiological and cognitive factors act as constraints on certain types of changes, rendering them conditioned rather than spontaneous (Tuite, 2006, p. 225).

It is necessary to differentiate the stages of language system development under the influence of intercultural contacts. Considering the diversity of outcomes resulting from such interactions, Elvin Fill proposes an ecological approach to language, where contact is viewed as a dynamic process that can lead to linguistic and cultural changes. He distinguishes between societal language contact (multilingualism, diglossia, etc.) and language contact in an individual's consciousness (individual bilingualism – code-switching, interference, translation activities) (Fill, 2007, p. 179, p. 187). Therefore, when studying the consequences of language contact, one must consider its nature and parameters of occurrence (time, place, scale, intensity).

Donald Winford has proposed a taxonomy of language contacts based on their impact on language:

- Language retention – situations of borrowing (common, moderate, intensive), convergent situations.
- Language change.
- Language creation – bilingual communities, pidgins, creoles (Winford, 2003, pp. 23–24), and the creation of language variants.

Language borrowings infiltrate a language as a result of contact between different ethnic groups that speak different languages due to social, political, economic, or cultural interactions. For comparison, when a particular ethnic minority resides in an area dominated by the host society, assimilation of the language occurs, or, as linguists often refer to it, a linguistic shift takes place. In such cases, the change of language is driven by pragmatic considerations, such as the need to find employment, access education, or engage in business activities.

The direction of linguistic shift is always influenced by the most impactful situational factors. The process of linguistic shift is inevitably associated with the process of conventionalization. S. Kemmer defines conventionalization as “a gradual process in which a word gradually permeates a larger and larger speech community” (Kemmer 2019, para. 5). The result of the conventionalization process is the complete loss of connections with the donor language according to the perception of the recipient community (Kemmer 2019, para. 5).

In English linguistics, researchers have identified several periods of conventionalization when the recipient language was influenced by a certain culture and its language, actively adopting new words (Kemmer 2019, para. 2). The result of conventionalization for the English language is the creation of a more or less stable version known to contemporary speakers (Kemmer 2019, para. 12).

In foreign linguistics, Turkic borrowings in the English language have been studied within the framework of oriental lexicology (Cannon, 1994; Cannon & Kaye, 2001; Vitkus, 2003; Gil Harris, 2008; Burton, 2011).

In English linguistics, studies of Turkic-origin vocabulary were not conducted until the end of the 20th century; however, fragmentary mentions of Turkic borrowings can be found only in lexicon and language history collections. At that time, it was claimed that the number of Turkic borrowings in the English language amounted to less than 20 poorly assimilated words (Robertson, 1936; Sekirin, 1964). However, due to a surge of interest in Eastern culture and languages in the late 20th and early 21st centuries, Turkic borrowings in the English language became the subject of research by linguists within the scope of oriental lexicology (Cannon, 1994; Cannon & Kaye 2001; and others). Different sources indicate different numbers of Turkic-origin words in the English language – from 10 (Amosova, 1956) to 800 (Butina, 1971).

The works of Irek Bikkinin encompass medieval borrowings. According to his data, there are approximately four hundred Turkic borrowings in the English language, of which 55% are ethnographic, 26% belong to social and political vocabulary, and 19% are words denoting natural phenomena (Bikkinin, 1998). Natural terms belong to the terminology of respective sciences, and therefore they are an essential part of the English vocabulary, although some of these words are familiar only to specialists.

A. Khamitova considers one of the most important indicators of the adaptation of Turkic borrowings in the English language to be their inclusion in various dictionaries of the English language (explanatory, etymological, phraseological), as well as their use in various literary works (Khamitova & Adilova, 2020, p. 24).

Despite the significant number of scholarly works in the field of linguistics, there still exists a substantial body of Turkic borrowings in the English language that requires thorough investigation.

### ***3. Aim and Objectives.***

The main goal of the research is to describe trade and economic Turkic borrowings as a component of the lexical system of the English language, as well as to characterize the phonetic-morphological, lexical-semantic, and lexical-stylistic assimilation of Turkic borrowings.

In line with the research goal, the following tasks have been set: identify the reasons, paths, and, if possible, the time of penetration of trade and economic Turkic borrowings into the English language, providing historical evidence of interactions between English speakers and Turkic languages and peoples; compile a register of trade and economic Turkic borrowings in the English language; identify and analyse the main phonetic changes in Turkic borrowings; examine the ways of morphological and derivational assimilation of the terms.

The primary material for the study consists of linguistic units collected from historical texts, dictionaries, and national corpora of English and Turkish.

### ***4. Methodology.***

In this research, we employ a comprehensive array of methodological approaches to shed light on the subject matter. We employ the comparative-historical, comparative-contrastive, and typological methods, drawing upon the historical and comparative dimensions of closely related languages and dialects of the English language. Furthermore, we harness general scientific methodologies and techniques, such as synthesis and analysis, deduction and induction, to illuminate various facets of our inquiry. In our endeavour to investigate the external factors that exert influence on the lexicon, transcending the confines of language per se, we employ the linguo-cultural method. In pursuit of refining the etymology of specific lexical units, a broad spectrum of comparative-historical analysis methods is brought to bear. In certain instances, we cast a diachronic lens upon the outcomes of synchronous analysis, concurrently employing a typological analysis method.

The systematic-classification method serves as our guiding principle in delineating thematic groups and facilitating the categorization of vocabulary, duly taking into account the inherent regularities that govern this process. This scholarly work finds its foundation in established theories of borrowing and translation, drawing extensively from the contributions of renowned theorists and historians in this domain.



### 5. Results and Discussion.

A comprehensive understanding of Turkic borrowings necessitates a systematic categorization of these linguistic elements. An essential approach involves the thematic classification of vocabulary, wherein words are grouped together based on shared extralinguistic associations. This approach proves to be both pragmatic and conceptually valuable. Thematic classifications facilitate the organization of words according to their relationship with tangible entities in the real world, with due consideration of extralinguistic attributes. Furthermore, the arrangement of words within specific thematic categories mirrors the structural order of objects, events, or processes in the non-linguistic realm.

In the construction of a thematic classification, antecedent scholarly perspectives hold a central position. In cases where the classification delineates domains that constitute focal areas of investigation within specialized fields of expertise, supplementary subdivisions are contemplated in alignment with established categorizations within the pertinent academic disciplines.

Throughout the course of our scholarly inquiry, underpinned by an exhaustive examination of historical texts, legislative decrees, official correspondences, epistolary archives, and authoritative lexical references, including but not limited to, the works of notable lexicographers such as W. Skeat's "Concise Etymological Dictionary of the English Language", J. Donald's "Etymological Dictionary", E. Partridge's "Origins: A Short Etymological Dictionary of Modern English", alongside authoritative lexicons including "The New Shorter Oxford English Dictionary", "Türkçe Verintiler Sözlüğü", "Türkçe Sözlük", İsmet Zeki Eyüpoğlu's "Türk Dilinin Etimoloji Sözlüğü", Eren Hasan's "Türk Dilinin Etimolojik", and the exploration of national corpora of the respective languages, notably the British National Corpus, Corpus of Contemporary American English, and Corpus of Historical American English, we have meticulously identified and categorized 14 lexical items into six primary thematic clusters within the realm of trade and economic vocabulary. These thematic groups include "Trade Items (Goods)" – 1 (*yogurt*), "Places of Commerce" – 3 (*kiosk, magazine, bazaar*), "Measurement of Goods" – 2 (*arshine, kantar*), "State Economy" – 5 (*copeck, denga, toman, tariff, yasa*), "Markings on Goods" – 2 (*jarlig, tughra*), and "Types of Profit" – 1 (*baksheesh*).

It is important to underscore that the classification we have propounded here stands as a foundational framework, which may be further enriched and refined through subsequent investigations in the realm of this intriguing topic.

In this article, our focus is dedicated to a comprehensive examination of the trajectory of penetration, nuances of assimilation, and the semantic evolution of Turkic loanwords, with a specific lens on the thematic cluster "Places of Commerce". Within this purview, we ascribe 3 nominations: *kiosk, magazine, and bazaar*.

Each loanword, upon its entry into the recipient language, embarks on a distinct path of evolution, characterized by the triad of phonetic, morphological, and lexical adaptation. This intricate process culminates in either the enduring integration of the lexeme into the language for epochs or its perpetual confinement to the periphery, failing to attain widespread utilization.

Notably, in certain instances, definitively determining the donor language for loanwords proves to be a formidable task, given the remarkable similarity among Turkic languages themselves. Occasionally, lexemes of Turkic origin may erroneously be ascribed to borrowings from Persian or Arabic (e.g., *toman*). Furthermore, in scenarios where a loanword traverses through a series of intermediary languages before reaching its destination, it may be ostensibly traced to one origin but is, in reality, derived from the etymon of another language (e.g., *copeck, denga*).

The English lexical entry '*kiosk*' made its debut in the English lexicon during the 1620s, initially denoting "a form of open pavilion" (Skeat, 1967, p. 278). In The Oxford English Dictionary of 1933, we find several spelling variants: '*chouske*', '*chiosque*', '*kiosque*', '*kioske*', '*kiosk*', '*chiosk*' (OED, 1933, V. 5, p. 710). At that time, the lexeme was used in two meanings: "an open pavilion or a light summerhouse on columns or surrounded by balustrades, common in Turkey and Persia and imitated in gardens and parks in Western Europe" (early 17th century); "a light decorative structure used for selling newspapers (in France and Belgium), for orchestras, or for other purposes" (mid-19th century).

The Oxford English Dictionary in the 1993 edition provides only one usage form – '*kiosk*' and mentions two additional meanings that the lexeme acquired in the course of its functioning in the language: "a light, often mobile booth for selling newspapers, cold drinks, cigarettes, tickets, etc." and "a building (in Australia) where cold drinks are sold in parks and zoos" (mid-19th century); "a telephone booth" (early 20th century) (OED, 1993, p. 1492).

Eric Partridge suggests the intermediacy of the French language in the borrowing of the term '*kiosk*' while pointing to Turkish or Persian as the donor language (Partridge, 2006, p. 1680). An etymological dictionary of the French language also indicates Turkish as the donor language, stating that the lexeme was borrowed with the meaning of "garden pavilion, belvedere" ("pavillon de jardin, belvédère") (Dictionnaire D'étymologie Française, 1888, p. 296). Later on, the term referred to street newspaper kiosks (since 1865), and from 1928 onwards, it was used to denote British red telephone booths (phone kiosk), which are famous worldwide for their distinctive appearance.

In modern American English, the term '*kiosk*' refers to a small booth with an open front where newspapers, cold drinks, tickets, and so on are sold. In the British English variant, it typically denotes a public telephone booth.

In the etymological dictionary of the Turkish language, the prototype '*köşk*' is used in the source language with meanings such as "villa, pavilion, mansion, tower" (TS, p. 1967). It was borrowed into Turkish from Persian as '*kūşk* / *kōşk*' (کوشک), meaning "a pavilion-like alcove, a room in the form of an alcove, a palace". The earliest source in history where the word '*kūşk*' is found is in Ashik Pasha's Garib-name from 1330.

In modern Turkish, the lexeme '*köşk*' functions with the meaning of "a large and elegant building constructed in a garden". Additionally, the term '*kiosk*' is used in Turkish, likely borrowed from European languages (possibly English), but it refers to a specific self-service device or terminal.

Therefore, we can conclude that the nomination '*kiosk*' entered the English language from several languages simultaneously, explaining the large number of graphical forms. From the 17th to the beginning of the 19th century, it functioned with the meaning with which it entered the recipient language. By the beginning of the 20th century, the lexeme had acquired three additional meanings, not only fully assimilating and becoming established in the language (as evidenced by the consolidation of a single graphical variant of usage) but also becoming integrated into English culture (being used to denote the iconic British red telephone booths). Furthermore, having undergone reinterpretation in English, the lexeme, along with its new meanings, was borrowed by several other languages (including Ukrainian, Russian, Turkish, and others).

The nomination '*magazine*' entered the English language at the end of the 16th century from French '*magasin*'. Initially, the term meant "a storehouse, depot, warehouse" and was often used figuratively to refer to books containing information useful for specific groups of people (in the metaphorical sense, "magazine of petitions", for example). The Oxford English Dictionary (OED) indicates the existence of several forms of usage of the lexeme in different periods: 16th century – '*magason*', 16th–17th century – '*magasin*',

'*magazen*', '*magezzine*', '*megazin*', '*magaseine*', '*magozin*', 17th–18th century – '*magazeen*', 19th century – '*magazine*'. The last form eventually became firmly established in the English language and is the only variant of usage of the term today.

In the English language, the lexeme developed several meanings, including: “a storage place for goods, depot, warehouse” (used both in the literal and figurative sense, e.g., “*magazine of petitions*”); “a designation of a country or region with reference to its natural products or cities as trading centres (*the city of London was the Magazine of money*)”; “a portable container holding valuable items or data (*his magazine of credentials was stolen*)”; “a military storage facility used during war for storing weapons, powder magazine, military provisions store, or shop where they are sold (*a powder magazine*)”; “a ship loaded with supplies, a provision ship, military storage ships in the fleet (*the Magazin ship...came into the Harbor*)”; “used as the title of books in the sense of “a collection of specific information” (*the Magazine of Warre*) and “a periodical publication containing articles by various authors (*Philosophical Magazine*)” (OED, 1933, Vol. 6, p. 22).

Additionally, the form '*to magazine*' can be used (though rarely nowadays) as a verb meaning “to store in a magazine or warehouse” (*we do not magazine or store up Corn*) and “to publish a magazine” (*the storing away or magazing of force for the Animal Kingdom*).

Having entered the English language, the lexeme '*magazine*' displayed its productivity, giving rise to a series of derivatives, including '*magazinist*', '*magaziner*', '*magazinery*' (referring to a person who writes articles for a magazine), '*magazinish*' (having characteristics typically found in magazines), '*magazinism*' (the profession of writing for magazines), and '*magaziny*' (characteristic or suitable for a magazine) (OED, 1933, Vol. 6, p. 22). Most often, the nomination is used in phrases like '*magazine cover*', '*magazine rights*', '*magazine section*', and '*magazine story*'.

In contemporary usage, the meaning of “a book containing specialized information intended for a specific readership” is considered outdated. Instead, the lexeme has acquired a new meaning, '*magazine program*', referring to a regular television or radio program filled with diverse informational or entertainment content, which has been in use since the mid-20th century.

In the etymological dictionary of the Turkish language, it is indicated that the lexeme '*mağaza*' comes from the Greek word '*magaziá*' (μαγαζιά), which means “storehouse or warehouse” and is the plural form of modern Greek '*magazí*' (μαγαζί). The modern Greek word can be traced back to the Venetian word '*magazín*', which means the same. The Venetian term, in turn, originates from the Arabic '*maḡāzin*' (مخازن), meaning “basements”. This form is a plural of the Arabic word '*maḡzan*' (مخزن), which is derived from the Arabic root 'ḡzn'. In Arabic, '*mağaza*' is still used with the meaning “shop” or “storehouse” (Eren; p. 358).

In the Turkish language, the term '*mağaza*' is first attested in writing with the meaning “ship's holds” in “The Lingua Franca in the Levant” by Kahane & Tietze (1453). This work described Italian and Greek maritime terminology in Turkish. In the sense of “store”, the nomination appears in “Sultan ve Kamuoyu: Osmanlı Modernleşme Sürecinde” in 1840. In modern Turkish, '*mağaza*' is used to mean “large store (shopping center)”. It is worth noting that there is also the nomination '*magazin*', which functions with meanings such as “a magazine with short text and many images and stories on various topics that appeal to the public, typically simple and enjoyable” and “a radio or television program that briefly discusses various lighthearted topics”. This form with its definitions was borrowed from the English language and was first documented in the 1945 edition of the TDK (Türk Dil

Kurumu) Turkish dictionary, Türkçe Sözlük (as “an illustrated magazine of current issues”) and since 1990 in the sense of “newspaper news about the personal lives of famous people”.

The word ‘*magazine*’ made its way into the French language through the military sphere, acquiring a new meaning, “large store”, and was borrowed into the English language, where it developed other various meanings. From English, it was reintroduced to the Turkish language in a new form with additional definitions. Just like in the case of ‘*kiosk*’, the term ‘*magazine*’ was documented in several graphic forms, which suggests the involvement of multiple intermediary languages. In the English language, the lexeme was fully assimilated and adopted, as evidenced by the consolidation of a single graphical variant for its usage. It belongs to the active vocabulary and is widely used in everyday life in all the mentioned meanings.

In the Middle Eastern countries, bazaars played a significant role in transforming many cities into major trade and cultural centres. The size of bazaars depended on the city’s place in the country’s socio-economic and political system. Trade took place in bazaars every day or on specific days of the week, depending on the size of the bazaar and its location (within the city or outside). Bazaars were a source of pride for cities and served as their distinctive “business cards”. Various social strata of the population were represented there, including urban and rural dwellers, people engaged in settled agriculture or nomadic animal husbandry, as well as traders from nearby and distant countries. Urban bazaars specialized in the sale of specific types of goods.

According to the etymological dictionary of the English language, the term ‘*bazaar*’ was borrowed in the 1580s, likely from Turkish through Italian ‘*bazarra*’. It has the following meanings: 1. “A market (as in the Middle East) consisting of rows of shops or stalls where various goods are sold (late 16th century)”. 2. “A place for the sale of goods, a department store (early 19th century)”. 3. “A fair for the sale of goods, especially for charitable purposes (church bazaar) (early 19th century)”. Additionally, the lexeme is found in the name of the highly popular fashion magazine “Harper’s Bazaar”, which has been published since 1867 and is known worldwide (published in 28 countries).

In the Oxford English Dictionary (OED), multiple historical forms of the term ‘*bazaar*’ are documented, each associated with distinct chronological epochs within the evolution of the English language. These include ‘*basaro, -arro*’ from the 16th century, ‘*bussar*’, ‘*buzzar(r)*’, ‘*basarr, -are*’ from the 17th century, ‘*basar*’ spanning the 17th to the 18th century, ‘*bazar*’ prevalent from the 17th to the 19th century, and ‘*bazaard*’ documented during the 18th century. Finally, ‘*bazaar*’ emerges as the prevailing and sole variant during the 19th century (OED, 1933, Vol. 1, p. 715). Remarkably, this lexeme’s diffusion extends beyond the English language, permeating the territories of India and Turkey. Its earliest usage is traced back to Italian influence, providing intriguing insights into its etymological journey.

The Turkish counterpart, ‘*pazar*’, retains contemporary relevance within the modern lexicon, signifying ‘*bazaar*’. Additionally, it designates specific days of the week; ‘*pazar*’ corresponds to Sunday, while ‘*pazartesi*’, a composite of ‘*pazar*’ and ‘*ertesi*’ (after), designates Monday. Etymological investigations in the Turkish language attribute its origins to the Persian ‘*bāzār*’ (بازار), denoting a “market” or “shopping locale” (Eren, 1999, p. 326). Historically, its first documented appearance can be traced back to the year 1300 within the “Codex Cumanicus”.

Notably, despite sweeping transformations in society and the emergent contours of mass culture, traditional bazaars continue to resonate as immersive and evocative settings. Intriguingly, they persistently resist displacement by contemporary shopping complexes. Adam Leaver, building upon insights from McMillan, posits bazaars as distinctive economic

entities, embodying specific structural attributes, idiosyncratic transactional protocols, and embedded cultural norms (Leaver, 2019, p. 8).

### 6. Conclusions.

Every language, as a specific system, possesses its own set of rules to which its elements conform during their interaction. When a foreign linguistic element infiltrates, the system endeavours to subject it to its own laws. This very process is what we refer to as phonetic, morphological, and lexical adaptation, the result of which is the assimilation and integration of the “foreign” by the linguistic “organism”.

The paramount indicator of complete assimilation of a foreign element for us is the establishment of a singular graphical form of usage and the inclusion of the nomenclature into the lexicographic sources of the language.

All three lexemes we have examined, upon entering the English language, had multiple forms of usage during different temporal periods. However, in contemporary English, each of them corresponds to only one graphical form. Thus, we can assert that they have been fully assimilated and integrated.

Due to historical reasons, very few Turkic borrowings have made their way directly into the English language from Turkic languages. In most cases, the intermediary for borrowing was the French language (*'kiosk'*, *'magazine'*) and other European languages (e.g., Italian *'bazaar'*).

It is worth noting that after adopting Turkic borrowings and ascribing new lexical meanings to them, the English language has become a source of borrowing for other languages. The lexemes *'kiosk'* and *'magazine'* entered the Turkish language in new forms (*'magazin'*, *'kiosk'*) and with new meanings, coexisting alongside the previously used terms (*'mağaza'* and *'köşk'*), signifying different realities.

The research has shown that such lexical units can be intriguing subjects for the study of the history of language and the examination of the influence of other cultures on linguistic development. Exploring this topic can contribute to a better understanding of the processes of borrowing and adaptation of words from other languages, as well as their usage in contemporary speech.

The analysis of Turkic borrowings within the English language remains a relevant task since it contributes to the enrichment of the lexicon and the revelation of historical and cultural connections between different peoples and languages.

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**Анотація**

Лінгвістичні контакти виникають у результаті взаємодії мовних, культурних і історичних чинників та є важливим аспектом міжкультурного спілкування. Особливу увагу привертають тюркські лексичні елементи, які активно використовуються в різних мовах як мовні компоненти. Ця стаття присвячена вивченню торгово-економічної лексики у складі англійської мови, яка має тюркське походження або була запозичена через тюркські мови. У статті розглядаються причини, шляхи та час проникнення торгово-економічних тюркізмів. Досліджуються шляхи морфологічного і словотвірного освоєння та розглядається їхня роль у збагаченні лексикону і розвитку мови.

Окрема увага приділяється етимології слів. Важливим аспектом дослідження є також виявлення впливу торгово-економічної лексики тюркського походження на формування лексики англійської мови.

У статті детально розглянуто етимологічне походження та семантичну еволюцію слів “кіоск”, “магазин” і “базар” в англійській мові та функціонування їхніх аналогів у турецькій мові.

Порівняння різних мов показує, що запозичення слів – це загальне явище в мові, інгредієнт, що має лінгвістичну сутність, яка дозволяє визначити абсолютний або відносний час їх уведення в систему різних мов. Тюркізми, пов'язані з лексико-семантичною системою мови-реципієнта, розширюють загальну кількість лексичних одиниць англійської та інших мов, визначаючи способи їхнього проникнення та рівень адаптації. Тюркські запозичення включають не тільки слова тюркського походження, але й лексичні елементи, які прийшли в англійську мову через інші мови, у т.ч. арабську та перську, і знайшли відображення в англійських лексикографічних джерелах. Таким чином, термін “тюркізм” належить до слів, які були включені в англійську мову з тюркських мов або через посередництво тюркських мов, незалежно від джерела таких мовних взаємин, і мають тюркський етап у своїй історії.

**Ключові слова:** тюркські запозичення, тюркізми, асиміляція, процес запозичення, англійська мова.

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## CROSS-CULTURAL BUSINESS COMMUNICATION: A LINGUISTIC AND COGNITIVE PERSPECTIVE

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**Abstract**

*In the modern global business sphere, the necessity for effective cross-cultural communication has become paramount. The article navigates the intricate interplay between language, cognition, and culture within the globalized business landscape. It offers a comprehensive view of the multifaceted complexities that underpin successful cross-cultural interactions, drawing from an extensive review of scholarly works and theoretical frameworks. Beginning with an exploration of culture's influence on communication styles and norms, it proceeds to highlight the role of language in facilitating effective cross-cultural communication. By comparing managerial preferences across diverse cultural contexts, the study offers a nuanced understanding of cultural variations and their impact on negotiation tactics, team dynamics, and relationship-building within international business settings. Furthermore, the article sheds light on the cognitive dimensions of culture, emphasizing the need for adaptable training methodologies to bridge cultural gaps. It extends discussions to encompass the societal, political, and technological dimensions of cross-cultural interactions, underscoring the critical significance of understanding and respecting these differences to foster successful global partnerships. Through this holistic examination, the article reinforces the critical importance of linguistic and cognitive perspectives in navigating the complex web of cross-cultural communication. It provides pragmatic guidance for businesses and individuals engaged in international collaborations, highlighting the necessity for sensitivity, adaptability, and nuanced approaches to bridge diverse cultural contexts, ultimately shaping the future of successful global partnerships.*

**Keywords:** *cross-cultural communication, international business, cultural dimensions, language and cognition, values.*

**1. Introduction.**

In an era characterized by growing global interconnectivity, effective communication is a cornerstone for achieving success within the international business landscape. Cross-cultural business communication, a complex and multidimensional field at the confluence of linguistic inquiry and cognitive science, has arisen as a pivotal and compelling area of scholarly investigation. As businesses expand internationally and interact with diverse cultures, understanding how language and cognition shape communication becomes imperative. This article delves into the intricate dynamics of cross-cultural business communication, employing a linguistic and cognitive approach to understand the complexities that impact successful interactions in this globalized landscape.

**2. Literature Review.**

Culture plays a pivotal role in shaping communication styles and norms, and this relationship is crucial to understanding the dynamics of cross-cultural interactions. The notion of 'culture' stands as a multifaceted and elusive concept, defying a precise definition despite extensive academic scrutiny. As highlighted by Limaye and Victor (1991, p. 279), it is "too elusive to define precisely". Its complexity and multidimensional nature have led to a range of interpretations and perspectives, making consensus on a universally accepted definition an ongoing challenge. The persistent debate surrounding the concept of 'culture' emphasizes its intricacy and the difficulties in arriving at a singular, all-encompassing definition, perpetuating an ongoing scholarly discourse and diverse interpretations across disciplines.

Geert Hofstede (1980) contends that individual behavior operates within a mental programming shaped by societal rules, emphasizing the role of values and culture in this programming. Culture encompasses a synthesis of knowledge, standards, moral principles, legal frameworks, and collective recognition within specific human groups (Spencer-Oatey, 2012).

Gamsakhurdia (2020) contends that culture plays a central role in human cognitive development. Culture is seen as a complex system involving how people relate to one another within their social and cultural environments. This view emphasizes how cultural elements and individuals are interconnected. According to Primecz et al. (2009), 'culture'

forms the basis for creating emotionally significant meanings and shaping how individuals define themselves.

Cultural norms and communication styles are directly influenced by the dimensions of culture and interdependent self-construal (Lick & Hoo, 2016). These dimensions define how individuals view themselves within the context of the collective and how communication is shaped by these cultural values. Cultural norms and communication styles are dynamically linked, where an interdependent self-construal influences indirect, context-based communication methods that are deeply embedded in cultural behaviors. This connection significantly impacts verbal and non-verbal interactions within diverse cultural settings (Ting-Toomey & Dorjee, 2017).

The global economy has further impacted business communication, aligning it more closely with the low-context communication styles, emphasizing clarity and directness. Nevertheless, it is essential to recognize that within any culture, there is diversity in communication preferences, with some individuals favoring explicit and direct approaches even within high-context cultures. In the increasingly interconnected global business landscape, appreciating these nuances becomes paramount (Zaidman, 2001; Dévényi, 2015; Steers & Osland, 2020).

In today's era, diverse cultural groups across the globe maintain distinctive belief systems, values, norms, traditions, and expectations. These cultural elements significantly impact economic, political, and social advancements. The increasing integration of technology has facilitated frequent interactions among individuals from various cultural backgrounds. At times, these interactions can lead to conflicts that result in consequences such as economic disinvestment, political disturbances, and in extreme cases, even warfare. To avert such clashes, the need for effective cross-cultural communication has never been more critical (Johnston, 2003). The mass media assumes a central role in this process, determining who possesses a platform and facilitating genuine cross-cultural exchanges. With globalization reshaping the realms of technology and economics, its societal and political ramifications depend significantly on the mass media's ability to enable successful cross-cultural communication.

Lubis and Sagala (2020) highlight that the primary purpose of delving into cross-cultural discussions is to equip individuals with the attitudes, knowledge, and skills necessary for navigating their micro-culture, the broader mainstream culture, and the global community effectively. It reminds us that we live in a world where multiple perspectives and life approaches coexist. Stressing the significance of cross-cultural studies, it is crucial to understand the possible outcomes of communication breakdowns, including misunderstandings, financial impacts, and, in severe instances, catastrophic consequences.

The increasing importance of cross-cultural communication reaches far beyond international business. It now extends its influence to various professional domains (Szkudlarek et al., 2020). In today's interconnected world, understanding diverse cultural perspectives is a key component of success in the professional sphere. We mean to emphasize the critical role of cross-cultural communication, highlighting its relevance and practical applications in a business context.

The evolving role of languages, particularly English, within cross-cultural management and international business studies, raises interest in scholars (Tietze & Piekkari, 2020; Liu & Wang, 2015). Initially regarded as secondary to cultural approaches, languages gained prominence in the late 1980s as integral components of multinational company strategies (Piekkari & Westney, 2017). The language's strategic significance in communication, control, and coordination within diverse linguistic landscapes has been growing, including social media (Wankel, 2016). Over time, language research became a

distinctive field, emphasizing knowledge transfer, group dynamics, and the influence of English in management knowledge creation. The importance of language composition in editorial boards and its effect on knowledge diversity was also recognized. This evolution illustrates the increasing emphasis on language diversity and its role in shaping organizational practices and knowledge frameworks.

Overall, the article's comprehensive theoretical and methodological basis lies in the integration of linguistic and cognitive approaches, incorporating key concepts and theories from a wide array of scholarly works to explore the complexities and nuances of cross-cultural business communication.

The literature review highlights the intricate ties between culture and communication, showcasing the multifaceted nature of 'culture' and its influence on diverse communication styles. Understanding these varied cultural perspectives is crucial for success across professional domains. The evolving role of languages, particularly English, underscores their increasing significance in shaping organizational practices and knowledge frameworks. This literature review forms the foundation for our exploration of cross-cultural business communication, underscoring its vital relevance within the global business landscape.

### **3. Aim and Objectives.**

The aim of the article is to explore the multifaceted dynamics of cross-cultural business communication through a combined linguistic and cognitive approach, discovering how these dimensions shape and impact global business interactions. The article has the following objectives: to analyze and exemplify cultural variations in communication; to emphasize the role of language in facilitating effective cross-cultural business communication; to compare managerial preferences across cultures.

### **4. Methodology.**

The methodological framework of the study is created by the works dealing with the notion of culture, cultural dimensions, and values (Hofstede, 1980; Hall, 1981; Gamsakhurdia, 2020), alongside the studies of culture in cross-cultural management (Limaye & Victor, 1991; Primecz, Romani, Sackmann, 2009). These sources offer significant theories and concepts that underpin the understanding of cultural variations, communication styles, and the foundational aspects of cross-cultural business communication. The study employed several methods. The method of comparative analysis was used to provide a systematic examination of various cultural dimensions, comparing and contrasting communication styles and norms across different cultural contexts. It aimed to identify similarities and differences to explore the intricacies of cross-cultural interactions. The descriptive method involved a detailed and comprehensive portrayal of cultural characteristics, including communication preferences, social norms, and managerial approaches. By providing in-depth descriptions, it facilitated a nuanced understanding of diverse cultural settings. The method of integration and synthesis brought together diverse insights from linguistic, cognitive, and cross-cultural studies to construct a holistic view of the complexities surrounding cross-cultural business communication.

### **5. Results.**

Cultural variations significantly impact cross-cultural business communication within linguistic and cognitive frameworks. The contrasting communication styles between cultures (such as *outgoing and informal* versus *private and reserved* behaviors) depict the varied approaches individuals employ to express emotions and engage with others. These differences greatly influence negotiation tactics, team dynamics, and relationship-building in

international business contexts. Moreover, disparities in work ethic, exemplified by the *'live to work'* versus *'work to live'* mindset, underscore differing priorities surrounding professional achievement versus overall life satisfaction. These dissimilarities permeate attitudes toward hierarchy, temporal perspectives, and the pursuit of individual versus collective goals within business practices.

Cultural disparities play a pivotal role in determining the preferred methods and perceptions of managerial education across various regions. For instance, German and Swiss managerial preferences emphasize structured learning environments with definitive learning objectives, precise course outlines, and an emphasis on singular correct solutions. This stands in stark contrast to the preferences of individuals from Anglo-Saxon cultures such as the UK and the USA. Anglo-Saxon participants generally lean towards more open-ended learning environments, favoring loose objectives and practical tasks over rigid structures, and are less receptive to the concept of a single correct answer.

The cognitive dimension influences cross-cultural business communication, as indicated by the distinct cognitive frames that vary across cultures (Limaye & Victor, 1991). The dominant cultural values and ideologies shape differing perceptions of rationality and inquiry within specific societal contexts. This differentiation in cognitive processing becomes further highlighted in successful cross-cultural adaptations, where the fusion of varied cultural concepts demonstrates the concept of cultural synergy, such as the example of merging Anglo-American and Japanese cultural concepts.

Cultural variations significantly shape cross-cultural business communication, impacting negotiation strategies, team dynamics, and relationships. Variances in work ethics and educational preferences diverge across cultures, highlighting contrasts between structured learning (German, Swiss) and open-ended approaches (Anglo-Saxon). Cognitive differences in rationality and inquiry further influence cross-cultural adaptations, illustrating the synergy between varied cultural concepts.

## **6. Discussion.**

Cross-cultural communication, an area of vigorous discussion since the 1980s, finds its roots in several significant catalysts. The rapid expansion of international trade stands as a primary driver, catalyzing extensive foreign investment and the proliferation of multinational corporations (Limaye & Victor, 1991). This surge intertwines with contemporary global dynamics, where mass migration, propelled by conflict-driven resettlement in culturally diverse foreign lands, presents an additional layer to the discourse. Nations such as France, Canada, and India exemplify a mosaic of multiculturalism, further expanded by regions like Ukraine, embodying a multifaceted cultural ensemble, reflecting a diverse tapestry of ethnic groups.

Hofstede's definition of culture (1980) holds particular relevance, as it encapsulates the core concepts of culture as a system of shared values that serve to distinguish and identify different cultural communities. This understanding of culture extends beyond considerations of nations, encompassing religious, ethnic, territorial groups, and also finds application within the realm of businesses, companies, and organizations. Organizational culture (Lubis & Hanum, 2019) draws from this foundational understanding, wherein employees share common beliefs and values, shaping a collective culture. It becomes a prerequisite for individuals seeking to be part of such organizations (Idowu, 2017).

Various approaches exist in the delineation of the term 'cross-cultural'. Despite attempts to distinguish between cross-cultural and intercultural communication (Szkudlarek et al., 2020), scholars commonly use these terms interchangeably. In this article, we will take an inclusive approach and treat these terms as synonymous.

Dévényi (2015) accentuates the indispensable nature of cross-cultural skills, essential not only for individuals adjusting to new cultural environments but also critical for natives navigating an increasingly diverse business landscape. The profound relevance of cross-cultural business communication within the contemporary global milieu is evident, requiring the ability to navigate the intricacies of intercultural interaction.

Cross-cultural communication skills encompass more than the capacity to effectively engage with individuals from diverse cultures (Dowling et al., 2013). It includes collaboration, pursuit of common goals, and adept navigation of diverse “cultural contexts” (Early & Ang, 2003), with swift adaptability deemed pivotal in cultivating robust cross-cultural skills.

In the context of cross-cultural business communication, effective communication is a fundamental requirement for the success of any organization. It encompasses both internal and external communications, influencing everyday activities and overall outcomes. The challenges in communication become more prominent when engaging in cross-cultural interactions. Misunderstandings and information loss often occur due to ethnocentrism, stereotyping, and confirmation bias. Ethnocentrism involves judging others based on one’s own cultural norms, while stereotyping imposes unjust generalizations. Confirmation bias perpetuates misconceptions by causing individuals to see what aligns with their expectations and overlook positive attributes in others. Consequently, it is not unexpected that workplace miscommunication is significantly influenced by these cultural differences, making the task of effective cross-cultural interaction more complex (Merkin et al., 2014).

Edward Hall’s (1981) contextual perspective on communication introduces the concepts of high-context and low-context communication. High-context communication relies on implicit information, often embedded in the physical context or understood by those within the same cultural group. This approach characterizes many Asian and Arab cultures, where information is valued for its content rather than its organization. In contrast, low-context cultures, such as those in North America and Europe, prioritize direct, detailed, and individualistic communication, focusing on effectiveness and purpose. These cultural differences lead to distinct communication styles that vary between individualistic and collectivistic approaches.

Cultural influences, combined with individual personalities, professional experiences, and personal preferences, shape how individuals communicate. Understanding these nuances is crucial in cross-cultural contexts to facilitate effective communication and prevent misunderstandings. As demonstrated by Zaidman’s (2001) example of cultural clashes between Israel and India, even when sharing a common language, cultural differences can lead to misinterpretations. Hence, a deeper awareness of cultural codes, as well as the willingness to ask clarifying questions, is essential for cross-cultural business communication (Kumaran, 2012).

The discussion of social behaviors highlights the impact of different cultural norms (*including formality in names, body language, personal space, and risk-taking behaviors*) on business interactions. For instance, the contrast between formal and informal naming conventions signifies varying levels of respect and familiarity within professional relationships. Variances in body language and personal space illustrate contrasting comfort levels in physical interactions, affecting trust perception and rapport in business meetings. Differences in attitudes towards risk-taking, whether *welcoming* or *risk-averse*, significantly influence decision-making processes and approaches to innovation within multinational collaborations. These examples underscore the importance of acknowledging and understanding such cultural divergences, emphasizing the necessity of comprehending these

differences to facilitate effective cross-cultural business communication. This understanding ultimately impacts the success of international business endeavors and relationships.

Moreover, distinct cultural inclinations surface regarding collaborative work among managers from Asian cultures and individualistic Anglo-Saxon backgrounds. While working in groups comes naturally to Asian managers, they might encounter difficulties in promoting their ideas within a group, especially when faced with potential disagreement or conflict that might lead to loss of face. This contrasts with the Anglo-Saxon cultural value placed on open group discussions where expressing personal opinions is encouraged, even at the cost of challenging others' ideas. Anglo-Saxon culture emphasizes tolerance for confrontation and uncertainty, diverging from the traditional norms in many Asian and Central European countries where voicing opinions, disagreement, and debating with the manager are less common practices.

Training methods, such as extensive use of case studies, business games, and role-plays, vary significantly across cultures, reflecting diverse learning approaches. Anglo-Saxon styles favor active and experiential learning over cognitive or reflective learning, utilizing an inductive approach to derive general principles or theories. Conversely, European managerial approaches often prioritize a deductive method, starting with a theory or framework and applying it to specific situations. This distinction leads to differing perceptions, where European managers may find certain exercises less relevant or overly theoretical when conducted by U.S. trainers, who, in turn, seek more practical and concrete training experiences.

Integration of varied training and development practices within international organizations poses a challenge due to divergent cultural preferences. While standardizing training methods might be vital for rapid knowledge dissemination or to maintain the company's training quality as a recruitment tool, cross-fertilization of diverse approaches could offer substantial benefits to multinational corporations. The utilization of mixed pedagogical approaches and trainers from various nationalities might prove necessary when working with manager groups from different cultural backgrounds.

This discussion synthesizes the multifaceted dimensions of culture influencing cross-cultural business communication, emphasizing the significance of comprehending and respecting these differences. Integrating a linguistic and cognitive perspective illuminates the complexities underlying communication practices, enabling businesses to navigate and leverage these diversities for mutual benefit and sustainable global partnerships.

In the realm of cross-cultural business communication, oral and written languages function not merely as tools for transmitting information but as repositories of cultural values and beliefs (Van de Vliert, 2011). The significance of language goes beyond mere communication, extending to encapsulating the essence of a culture – encompassing its heritage, norms, and collective identity. Each language harbors a unique set of phrases, idiomatic expressions, and linguistic structures deeply embedded in cultural ideologies, showcasing a society's core values. For instance, the English language, much like others, contains idiomatic expressions such as *'going the extra mile'*, *'putting all your eggs in one basket'*, or *'on the same page'*, each carrying nuanced meanings and cultural connotations that might not directly translate to other languages. Even the use of titles or forms of address – common in English-speaking business settings – such as employing honorifics like *'Mr.'*, *'Dr.'*, or *'Professor'*, or swiftly transitioning to using first names, exemplifies how cultural subtleties are embedded within the language. These nuances in tone, formality, and vocabulary play a pivotal role in conveying cultural values and fostering effective cross-cultural business communication.

When individuals engage in business interactions across diverse cultural settings, the language they use significantly influences the expression and comprehension of prevailing cultural values. Specific language structures and expressions carry embedded cultural connotations that might be unique to a particular linguistic context. Understanding and being attentive to these nuances is crucial in fostering mutual respect, understanding, and successful interactions in a global business context. Therefore, acknowledging the importance of language in transmitting cultural values and embracing the intricacies of idiomatic expressions and language-specific customs is fundamental in ensuring effective cross-cultural communication within international business settings.

In understanding cross-cultural business communication, language functions as a reflective lens showcasing the diverse cultural differences woven intricately with distinct psychological orientations within each culture. Language shapes authentic social behavior across a spectrum of scenarios such as sales encounters, business meetings, diplomatic or political negotiations (Humă, 2023). These are contexts where persuasive strategies are commonly applied. Understanding the fundamental values of both the national culture and the corporate culture becomes essential for a successful outcome in these interactions, as it significantly influences how persuasion, decision-making, and communication are conducted.

Moreover, the evolving digital communication landscape in cross-cultural business interactions has introduced concise expressions and nonverbal cues specifically adapted for online written exchanges. This evolution places emphasis on the role of emotions in understanding intentions, meanings, and cultural nuances, thereby shaping business relationships across diverse cultural landscapes. Mastery of these emotional and linguistic dynamics becomes imperative for effective cross-cultural interactions, allowing for enhanced understanding and successful communication in this digital age (Ishchuk A. & Ishchuk O., 2022, p. 122).

The cognitive dimension significantly influences cross-cultural business communication, as indicated by the distinct cognitive frames that vary across cultures (Limaye & Victor, 1991). The dominant cultural values and ideologies shape differing perceptions of rationality and inquiry within specific societal contexts. This differentiation in cognitive processing becomes further highlighted in successful cross-cultural adaptations, where the fusion of varied cultural concepts demonstrates the concept of cultural synergy, such as the example of merging Anglo-American and Japanese cultural concepts.

### **7. Conclusions.**

The study highlighted the interconnected nature of language, cognition, and culture in shaping cross-cultural communication, emphasizing linguistic nuances as carriers of cultural values. It revealed how cultural differences significantly influence communication styles, impacting negotiations, team dynamics, and relationships in international business settings. Varied managerial preferences in learning and decision-making underscored the necessity for adaptable training methods to accommodate diverse cultural approaches.

While cultural clashes and language-specific customs present challenges, understanding these differences provides opportunities to leverage diverse perspectives for successful global partnerships. Effective cross-cultural communication was emphasized as critical in navigating complex cultural codes, fostering trust, and enabling successful collaborations.

Moreover, language was depicted as not just a communication tool but a vessel for cultural identities, carrying nuanced expressions and structures. The study extended its implications beyond international business, emphasizing the importance of understanding

cultural disparities and linguistic nuances in various professional domains. In essence, it underscores the crucial role of linguistic and cognitive perspectives in bridging cultural gaps, offering pragmatic guidance for successful global interactions and partnerships.

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### Анотація

У сучасному глобалізованому бізнес-просторі потреба в ефективній міжкультурній комунікації набула першочергового значення. У статті розглядається складна взаємодія між мовою, пізнанням і культурою в глобалізованому бізнес-середовищі. Стаття пропонує комплексний погляд на багатогранні аспекти, що лежать в основі успішної крос-культурної взаємодії, спираючись на широкий огляд наукових праць і теоретичних засад. Починаючи з дослідження впливу культури на комунікаційні стилі та норми, автори переходять до висвітлення ролі мови у сприянні ефективній міжкультурній комунікації. Порівняння управлінських уподобань у різних культурних контекстах дає змогу глибше зрозуміти культурні відмінності та їхній вплив на тактику ведення переговорів, командну взаємодію та побудову стосунків у міжнародному бізнесі. Крім того, стаття висвітлює когнітивні виміри культури, наголошуючи на необхідності адаптивних навчальних методологій для подолання культурних розбіжностей. У статті також розглядаються соціальні, політичні та технологічні аспекти міжкультурної взаємодії, підкреслюється важливість розуміння та поваги до цих відмінностей для створення успішних глобальних партнерств. Такий цілісний аналіз підкреслює критичну важливість лінгвістичних і когнітивних перспектив у процесі навігації в непростому світі крос-культурної комунікації. Стаття надає практичні рекомендації для бізнесу та приватних осіб, які беруть участь у міжнародній співпраці, підкреслюючи необхідність прояву чутливості, адаптивності та тонких підходів для подолання розбіжностей у різних культурних контекстах, що, зрештою, визначає майбутнє успішних глобальних партнерських відносин.

**Ключові слова:** міжкультурна комунікація, міжнародний бізнес, культурні виміри, мова і пізнання, цінності.

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# POST-EDITING DECISIONS IN MACHINE TRANSLATION OF LEGAL CONTRACTS

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**Abstract**

*Legal translation requires special language use. It has therefore been many a time credited to be one of the most difficult genres to translate. Post-editing of machine translation is becoming more and widely employed in the translation industry. Even in languages that cannot boast huge amounts of resources, translating texts of certain genres is rarely conducted without resorting to machine translation, as the resulting quality seems to be approaching parity with human translation. This study attempts to analyze and compare post-editing decisions in machine translated legal contracts from English to Lithuanian and from English to Ukrainian. Legal contracts are part of the legal discourse with language characterized as being archaic, complex, culturally bound and typically stocked with formulaic phrases, specialized terms, and Latinisms. Being a technical type of discourse, legal translation may benefit from machine translation. The conclusions of the study are based on the findings of assessment of machine translation post-editing decisions made by professional translators. The findings demonstrate and support the results of previous research with other languages that the main trends are as follows: changes in noun and verb phrases in both languages, co-reference and reordering changes. Further study of the stated problem will allow expanding (targeting and detailing) the typology of post-editing actions, considering the specifics of Baltic (Lithuanian) and Slavic (Ukrainian) languages.*

**Keywords:** machine translation, post-editing, post-editing actions, legal contracts.

**1. Introduction.**

Legal translation is among the most complex types of technical translation. It is also by far the most demanding from the translator's point of view. Professional translators working with legal texts have to be well versed in legal language which is typically archaic, sophisticated, culturally bound and typically stocked with formulaic phrases, specialized terms, and Latinisms. Chérageui (2012) suggests that although technical translation work is challenging and strenuous, most of it is dull and repetitive, at the same time necessitating diligence and precision. While computer-assisted tools are now a standard aspect of a translator's routine, the adoption of machine translation becomes an alternative solution where human resources are insufficient. Having this in mind, legal translators and/or clients may benefit considerably from machine translation. Post-editing (PE) is becoming more and more widely employed and relied on in technical and, therefore, legal translation.

This study aims to analyze post-editing decisions in machine translated legal contracts, which are a typical manifestation of legal texts. To equip legal linguists, translators, and post-editors with the necessary tools of their trade, legal translation has become the subject of "linguistic research within the framework of comparative legal linguistic and legal translation and interpreting theories and practices" (Gortych-Michalak, 2017). Therefore, in addition, a comparison between post-editing decisions in English to Lithuanian and English to Ukrainian is carried out in order to determine if there are any cross-linguistic idiosyncrasies and parallels, which under further research may allow developing universal generalized systemic approaches to the post-editing of legal texts for the studies target languages.

The present study is expected to contribute to our understanding of cognitive efforts that post-editors make and the reasons behind their choices in two different yet distantly related languages. This article is organized as follows: literature review overviews existing studies on machine translation post-editing of legal content in a variety of languages, followed by aims, objectives and methodology adopted in the study; the section on the results is supplemented with examples of the major study outcomes, which are further

highlighted and compared in the discussion section; the conclusions summarize the results, highlight the implications, acknowledge the limitations and outline future research directions.

## **2. Literature review.**

Many languages of the world are under-resourced in terms of parallel corpora that are important for precision in machine translation. Lithuanian and Ukrainian are among such languages (Utka et al., 2016; Grabar et al., 2019). Efficient post-editing that also requires less temporal and cognitive effort largely depends on the quality and precision of machine translation output. Below we overview recent publications reporting the results of research on machine translation and post-editing in various language pairs, mostly focusing on under-resourced languages.

In a study by Killman and Rodriguez-Castro (2022) where an experimental research design was carried out involving 26 translators who translated and post-edited a legal text in the English to Spanish pair, the general implication focused on the benefits of post-editing in terms of quality and time gains compared to translation. The output of machine translation was found to be especially useful at the terminological and phraseological levels.

A usability study of machine translated segments from English to Croatian was conducted by Omazić and Šoštarić (2023). Text versions processed by five machine translation tools, including generative artificial intelligence based, were found to be highly usable with the majority requiring only minor or major revisions, which allowed the authors of the study to conclude that machine translation output requires post-editing as a necessary step in translation of legal texts (Omazić & Šoštarić, 2023).

Of mention here is a study on machine translation for post-editing practices in the English to Lithuanian language pair, which is also one of the objects of the current study. Although Povilaitienė and Kasperė (2022) employed a news text, the findings may be relevant here to note since three well known machine translation engines were deployed and demonstrated mainly minor errors in the machine translated output. In addition, accuracy errors were in all three cases the most abounding.

The three above mentioned studies, two in the direction from the language of rich resources, i.e., English, to the languages deemed under-resourced (namely, Croatian, Lithuania) as well as the study describing findings in Spanish, reported on the machine translation quality to a lesser or greater extent. Human interference can be emphasized to be relevant.

On the other hand, a look at studies analyzing machine translation and/or post-editing quality in a reverse direction, i.e. from a low-resourced language to English as the language with the most resources, reveals similar results. Here we overview the results of machine translation and/or post-editing quality assessment from Greek, Korean and Hungarian, which are considered as either under-resourced or medium resourced languages (see Sosoni et al., 2022; Park et al., 2020; Yankovskaya, 2023).

A study where machine translation from Greek to English, the language pair deemed under-resourced, was assessed involved a comparison of post-edited and human translated legal texts (Sosoni et al., 2022). The authors reported no productivity gains in the post-edited version; they did not either observe major differences in accuracy or fluency between the post-edited and human translated versions. The human translated texts exhibited errors of accuracy, while the post-edited text contained style and verity errors (Sosoni et al., 2022).

Kovács (2022) compared the quality of machine translated legal texts in both directions: from English to Hungarian vice versa. One tendency that was equally noted in both translation directions was inconsistency of adverbs that was found to be more common

compared to nouns and verbs. However, in terms of the other tested parameters – source-language faithfulness and target-language well-formedness – machine translation from English to Hungarian resulted in a lower quality compared to human translation. On the other hand, inconsistency of special legal terminology use was more pronounced in Hungarian to English machine translation (Kovács, 2022). Therefore, post-editors' experience and competence are crucial in completing high quality requiring post-editing tasks.

The study of the English-language texts of official OSCE reports translated into Ukrainian using machine translation systems (Koroliova et al., 2020) demonstrated that the most difficult task for machine translation is the matching of language units by person, numbers and cases, resulting in incorrect selection of correspondences. These issues make approximately 25% of all identified errors. Furthermore, about 13–14% of errors stemmed from literal translation, causing distortions in the original message. The authors of the study emphasize that machine-translated texts, while providing a general understanding, require refinement through post-editing by a human to ensure accuracy.

T. Arterchuk (2014) proves the effectiveness of employing machine translation followed by post-editing not only for direct translation, but also for training future lawyers. The researcher concludes that the teacher should emphasize to students the critical nature of precise specialized text translation, clarify the key lexical, grammatical and stylistic features of legal language, highlight the main shortcomings of machine-translating legal texts, and pay attention to the human factor, i.e. teach fundamental techniques for post-editing machine-translated results.

Some other studies also report evidence of research that machine translation post-editing might not be helpful in case of legal translation. In a study where English to Chinese human translation and post-editing scenarios were compared, Cui et al. (2023) found that semi-professional translators rated legal texts as requiring more cognitive effort than other types of texts. The authors argue that legal jargon and complex syntax make it difficult for translators and machine translation seems not to be beneficial. An example of an incorrectly translated legal term is provided as evidence that machine translation may still struggle with legal terminology where precise rather than straightforward, word-for-word translation of terms is required (Cui et al., 2023). Such cases might be a confirmation of lower efficiency of post-editing, which may also turn to be demanding from the perspective of time.

Although legal jargon has been disclosed to be an issue for machine translation, Mileto (2019) proposes a solution that may provide needed quality in machine translation post-editing of legal documents. The author maintains that custom-designed termbases used along with machine translation may help achieve consistency and lead to reduced temporal efforts while retaining undiminished quality (Mileto, 2019).

Given all the pros and cons reported in the literature on the use of machine translation for post-editing purposes and the peculiarities of machine translation in low-resourced languages, we hope that post-editors may benefit from an overview of the tendencies of post-editing actions reported in this study.

### **3. *Aim and Objectives.***

This study attempts to analyze and compare post-editing actions made by professional translators in machine translated legal contracts from English to Lithuanian and from English to Ukrainian. The objectives are as follows: (1) to compare post-editing actions of machine translated output of legal contracts in two languages; (2) to evaluate the quality of machine translated legal text before and after editing; (3) to analyze and determine the tendencies in post-editing actions (PEA) in a machine translated legal contract from English to Lithuanian and from English to Ukrainian.

#### **4. Methodology.**

Various taxonomies of machine translation errors have been designed exploiting examples from a number of languages (Flanagan, 1994; Vilar et al., 2006; Dugast et al., 2007; Lommel et al., 2014, among others). Studies in numerous languages and a variety of text types and genres have been conducted. However, focusing on the errors is one step only in the search for the best translation possible. Identifying the actions post-editors make to correct errors may help in understanding more about the nature of post-editing and in providing guidelines for translation students, novice translators and post-editors. In this study, we adopt Blain et al.'s (2011) approach who proposed a typology of post-editing actions which are the smallest logical edits that linguistically make sense made by the post-editor in a machine translated text. These edits are opposed to mechanical edits – insertion, deletion, substitution and move (Blain et al., 2011). The typology was based and tested on translation from English to French. The edits fall in 8 categories, namely related to (1) noun phrases in terms of lexical changes (including determined change, noun meaning change, noun stylistic change, noun number change, case change, adjective change, multiword change, noun phrase structure change); (2) verb phrases in terms of grammatical changes (including verb agreement correction, verb phrase structure change, verb meaning change, verb stylistic change); (3) preposition change; (4) co-reference change; (5) reordering; (6) post-editing error; (7) miscellaneous (unnecessary) stylistic change; (8) other unclassified miscellaneous changes. The original post-editing action analysis was conducted with rule-based machine translation and statistical machine translation. In Blain et al.'s (2011) study, the vast majority of changes were found to fall within the category of noun phrase changes (90% in case of rule-base machine translation and 92% with statistical machine translation).

In our study, we analyze a text of legal contract translated from English to Lithuanian and Ukrainian by a freely available neural machine translation system. The data analyzed consists of the extract from a sample partnership agreement. The extract from the agreement consisted of 1075 words. The machine translated texts were post-edited by six translators/post-editors who were then given a short survey regarding their perceptions on the machine translation and post-editing of the text. The statements (adapted from Castilho, 2016; Kasperavičienė et al., 2020) were as follows: (1) the text of the contract is easy to understand and clear; (2) the language of the contract text (grammar, vocabulary) is easy to understand; (3) the sentences in the text of the contract sound natural; (4) the provisions contained in the text of the contract are easy to understand and clear; (5) the parties can use the text of the contract and assume the rights and obligations provided for in it; (6) it is not necessary to read the text in the original language in order to understand it; (7) I could recommend the text of the contract to a person looking for such a contract. The post-editors had to respond to the statements by selecting out of 5 options: disagree, partially disagree, neither agree nor disagree, partially agree, or agree. Additionally, the post-editors were interviewed by asking them whether it was difficult to post-edit such a text.

#### **5. Results.**

As expected, noun phrase changes were most common among all other 8 categories. In this category, noun replacement with another noun by changing the meaning was most frequent. All other subcategories within the noun phrase change category were found, except for the noun phrase structure change. In the category of verb phrase changes, cases of verb meaning change and verb stylistic change were found, but no verb agreement correction or verb structure change were found. Cases of co-reference changes, i.e. introduction or removal of a pronoun, and reordering when an adjective or an adverb is repositioned to a better location were also present. No post-editor introduced errors nor unnecessary stylistic

changes, i.e. miscellaneous style changes, were found. On the other hand, other miscellaneous changes that could not be classified with Blain et al.'s typology were observed. This may require further investigation as corrections of technical errors – unnecessary punctuation marks, extra spaces, repetitive phrases – were more common than accidental. Examples of post-editing actions made by Lithuanian and Ukrainian translators are provided below for illustration purposes. Also, given that the analyzed text was of a relatively small size, some post-editing actions may not have occurred, thus requiring more extensive research.

### Example 1

**Source:** *In order to accomplish their aforesaid desires, the parties hereto desire to join together in a general partnership under and pursuant to the Uniform Partnership Act, amended from time to time (the “Act”).*

**MT output in LT:** *Siekdamos įgyvendinti savo pirmiau minėtus norus, šalys nori prisijungti prie tikrosios ūkinės bendrijos pagal ir pagal Vienodos ūkinės bendrijos įstatymą, retkarčiais keičiamą (toliau – Aktas).*

**Human post-editing LT1:** *Siekdamos įgyvendinti savo pirmiau minėtus pageidavimus, šalys siekia prisijungti prie viešosios bendrijos pagal Vienodos ūkinės bendrijos įstatymą, retkarčiais keičiamą (toliau – Aktas).*

**Human post-editing LT2:** *Siekdamos įgyvendinti savo pirmiau minėtus norus, šios sutarties šalys pageidauja prisijungti prie tikrosios ūkinės bendrijos pagal Tipinės partnerystės įstatymą su visais pakeitimais (toliau – Įstatymas).*

**Human post-editing LT3:** *Šalys, siekdamos įgyvendinti prieš tai nurodytus savo pageidavimus, pageidauja tapti bendros jungtinės veiklos partnerėmis pagal sudarytą bendrovės aktą su numatomais vėlesniais pakeitimais (toliau – aktas).*

**MT output in UA:** *Щоб виконати свої вищезазначені бажання, сторони бажають об'єднатися в загальне товариство відповідно до Уніфікованого закону про партнерство, до якого час від часу вносяться зміни (“Закон”).*

**Human post-editing UA1:** *Для досягнення вищезазначеного сторони цього Договору бажають об'єднатися в повне товариство відповідно до Єдиного закону про партнерство зі змінами та доповненнями (“Закон”).*

**Human post-editing UA2:** *З метою реалізації вищезазначених намірів сторони цього Договору бажають вступити в повне товариство відповідно до Єдиного закону про товариства з періодичними змінами й доповненнями (“Закон”).*

**Human post-editing UA3:** *Для виконання вищезазначеного бажання сторони Договору об'єднуються в повне товариство відповідно до Єдиного закону про товариства з подальшими змінами й доповненнями (“Закон”).*

In this example, it is important to pay attention to the correction of the translation of the term *Uniform Partnership Act*. Lithuanian translators chose the options *tipinės partnerystės įstatymą* and *bendrovės aktą*. Considering the fact that the legal basis in Lithuania differs from the legal basis of the source text (“The Uniform Partnership Act provides governance for business partnerships in several U.S. states” (Kenton, 2022)), there is no equivalent in Lithuanian. In this case, the post-editor who chose the option – *tipinės partnerystės įstatymą* performed a multi-word change – multiword expression change (meaning change). The post-editors who chose the option *bendrovės aktą* made an edit, classified as PE Error, i.e., the post-editor made a mistake in Blain et al.'s taxonomy, whereas the meaning of the edited term refers to a document prepared by a company and not to a law.

There are also no direct equivalents in the Ukrainian language. As mentioned above, the cause of such a situation lies in the differences in the structure and principles of legal

systems resulting in lacunae in terminological systems (Matvieieva, 2020, p. 187), which can be filled or corrected by a human translator or a post-editor. In this sample, the post-editors used two variants for the construction *Uniform Partnership Act – Єдиний закон про партнерство* and *Єдиний закон про товариства*. These equivalents are offered instead of a literal machine translation – *Уніфікований закон про партнерство*. This edit can be classified as a change in adjective choice for better fit with the modified noun.

Another term that was changed during post-editing is the term *General Partnership*. Machine translation resulted in the Lithuanian term *tikrosios ūkinės bendrijos*. The post-editors made changes to rendered this term as *viešosios bendrijos pageidauja tapti bendros jungtinės veiklos partnerėmis*. The selected term *viešosios bendrijos* may be classified as a PE Error, as the term is not used in Lithuanian. Such a form of legal entity does not exist in Lithuania, and the same time such rendering has no meaning and cannot be clearly understood. The changes made by the post-editor who went for the option *pageidauja tapti bendros jungtinės veiklos partnerėmis* may be classified as multi-word change – multiword expression change (meaning change).

Meanwhile, all three Ukrainian post-editors changed the option suggested by the machine (*загальне товариство*) by the construction *повне товариство*. Such an equivalent is found in the English-Ukrainian legal dictionary (Karaban, 2003, p. 461). The construction *загальне товариство* is also used in Ukrainian, but it is not registered in legal dictionaries and official documents. It is used in analytical and popular texts to describe this type of companies in other countries, not Ukraine. The change for *повне товариство* is identified as a change in adjective choice as well.

The Lithuanian post-editors made changes to the machine translation variant of source words *desires / desire*; instead of *norus / nori*, Lithuanian post-edited text contained *pageidavimus / pageidauja, siekia*. Following Blain et al.'s typology, such changes may be classified as Misc style, which may be regarded as an unnecessary stylistic change. Both Lithuanian words offered by machine translation are used and correctly translated, so the change was not necessary. On the other hand, the change resulted in a higher formality level, typical of such texts.

For the Ukrainian language in machine translation, there are equivalents *бажання / бажають*, for which each post-editor suggests changes: (1) Ø / *бажають (об'єднатися)*, (2) *наміри / бажають (об'єднатися)*, (3) *бажання / об'єднуються*. The reason for such changes is to prevent tautology, which, although often inherent in legal texts, is recommended to be avoided. The noun *намір* used in the second variant, is not fixed in the dictionary as a synonym for the noun *бажання*, but has such a sense in its meaning: “намір – задум, бажання зробити що-небудь” / transl.: intention – a plan or desire to do something (Busel, 2005, p. 724). So, in the first case, the construction ‘adjective + noun’ (*aforsaid desires*) is replaced with an adjectival form serving as a noun; in the second and third cases, the same parts of speech are used. This PEA can be classified as stylistic change where the words (nouns and adjectives) are replaced by the synonyms with minimum meaning change to prevent stylistic errors and inaccuracies.

To mention another common mistake in machine translations – a needless repetition – an unnecessary word repetition was made in Lithuanian machine translation output for the English *under and pursuant*, i.e. *pagal ir pagal* (lit. en. *according to and according to*) in the middle of the sentence, which occurs as an obvious error. Doublets are two synonyms used together, a problematic issue in translation (Heller & Zoyirova, 2022). They are “obsolete, redundant, unnecessary, pleonastic and ambiguous” and, what is more important, non-existent in many languages (Buşila, 2017, p. 123). In English legal language, the doublet *under and pursuant* is typical and common. In Lithuanian, no such doublet is established.



Machine translation renders both synonymous words literally. Post-editors therefore deleted one occurrence of *pagal*, thus making a change attributed to the class of miscellaneous changes.

As for the Ukrainian translation, the named construction (*under and pursuant*) was machine translated correctly (*відповідно до*) and didn't require any post-editing. As for other transformations, the pronoun *свої* was removed in post-editing as redundant and stylistically incorrect – a co-reference change. The punctuation of the translation was also corrected, as the post-editors used a complete syntactic restructuring of the sentence (a complex sentence has been replaced with a simple one).

### Example 2

**Source:** *Property Legal title to the property of the Partnership shall be held in the name of or in such other name or manner as the Partners shall determine to be in the best interest of the Partnership.*

**MT output in LT:** *Teisinė nuosavybės teisė į Partnerystės turtą įgyjama Partnerystės vardu arba kitu vardu ar būdu, kurį Partneriai nustato kaip geriausiai atitinkantį Partnerystės interesus.*

**Human post-editing LT1:** *Nuosavybės teisė į Partnerystės turtą įgyjama Partnerystės vardu arba kitu vardu ar būdu, kurį Partneriai nustato kaip geriausiai atitinkantį Partnerystės interesus.*

**MT output in UA:** *Власність Правове право власності на майно Товариства належить від імені або іншим ім'ям чи способом, який Партнери визначатимуть як найкращий в інтересах Товариства.*

**Human post-editing UA1:** *Майно. Право власності на майно Товариства набувається на ім'я Товариства або в інший спосіб, визначений Партнерами як такий, що якнайкраще відповідає інтересам Товариства.*

In Lithuanian, the phrase *Property Legal title to the property* was machine translated as *Teisinė nuosavybės teisė*. In this case, the English phrase *Property Legal title to the property* can be rendered to Lithuanian as either *Nuosavybės teisė* or *Teisinė nuosavybė*. The machine translation output shows redundant words with the same meaning: adjective *teisinė* (en. *legal*) and noun *teisė* (en. *right, title*); therefore, the first word – adjective *teisinė* – was removed in the post-edited text. This change is classified as a lexical change – multiword expression change without any change in the meaning).

In Ukrainian, the construction *Property Legal title to the property* was machine translated as *Власність Правове право власності*, which is incorrect both linguistically and logically (unreasonable repetition of the same or same-root or similar words). The post-editor used the construction *Майно. Право власності*, applying the noun *майно* (“речі, які комусь належать за правом власності” / transl.: items owned by someone under the right of ownership (Busel, 2005, p. 637)) as a synonym for the noun *власність* (“майно, належне кому-, чому-небудь” / transl.: property belonging to someone or something (Busel, 2005, p. 194)). Such transformation can be classified as a stylistic change with no meaning change.

### Example 3

**Source:** *It is the intent of the majority partner to begin making this transfer after \_\_\_ years.*

**MT output in LT:** *Daugumos partneris ketina šį pervedimą pradėti vykdyti po \_\_\_ metų.*

**Human post-editing LT1:** *Pagrindinis partneris ketina šį pervedimą pradėti vykdyti po \_\_\_ metų.*

**Human post-editing LT2:** *Didžiąją ūkinės bendrijos kapitalo dalį turintis partneris ketina šį pervedimą pradėti vykdyti po \_\_\_ metų.*

**MT output in UA:** *Мажоритарний партнер має намір почати здійснювати цю передачу через \_\_\_ років.*

**Human post-editing UA1:** *Мажоритарний партнер має намір почати цю передачу через \_\_\_ років.*

**Human post-editing UA2:** *Партнер, який володіє контрольним пакетом акцій, має намір розпочати цю передачу через \_\_\_ років.*

In the Lithuanian machine translated version, the noun phrase *the majority partner* was rendered as *daugumos partneris*. Such rendering is not correct in Lithuanian. Therefore, post-editors made changes in this instance and rendered it as *pagrindinis partneris* (en. *main partner*) and *didžiąją ūkinės bendrijos kapitalo dalį turintis partneris* (literal en. *large partnership capital part owning partner*). On the one hand, an adjective change occurred, and on the other, a multiword expression change was introduced, replacing the literal machine translated version with a descriptive phrase.

The Ukrainian, the post-editors made different decisions about correcting the machine translation. In the first case the terminological structure *the majority partner* was not changed, while in the second case the post-editor used descriptive translation, as construction *мажоритарний партнер* is not common in Ukrainian legal discourse. This case is classified as a noun-phrase structure change with the sense preserved, together with reordering for a better location of the parts of the utterance.

Concerning the survey results of post-editors about the machine-translated text they post-edited, none of them selected the option “agree” to any of the 7 provided statements. Most of the answers were within the range of partially disagree and partially agree. For statements 1, 2 and 3, the post-editors mostly chose the option “partially disagree”. For statements 4, 5 and 6, the answers ranged between “neither agree nor disagree” and “disagree”. For statement 7, the only answer option selected by the post-editors was “disagree”.

When asked whether it was difficult to post-edit the legal text, post-editors answered that it was quite a difficult task, especially when they felt that they would rather have to translate the text from scratch rather than post-edit it. Post-editors shared that some segments and/or sentences appeared to be correct at first glance, both grammatically and semantically. However, inconsistency of the terms used was among the issues they struggled with. In their opinion, post-editing took a relatively long time. They indicated that it took them from one to three hours to do the post-editing task.

## 6. Discussion.

As mentioned in the literature review, post-editing quality depends on the quality and precision of machine translation output. However, the post-editors’ competence is of great importance. Studies with various language pairs generally report the usefulness of using machine translation and post-editing of legal texts, making note of reduced temporal and cognitive efforts. However, in certain cases, especially involving under-resourced languages or language pairs or unrelated languages, research provides evidence that post-editing legal texts actually requires more cognitive effort than other types of texts. The issues to be taken into consideration while post-editing machine translated legal texts are many, including consistency in the use of terminology, non-matching legal jargon, complex syntax, to mention but a few. Because of the lower quality of machine translation output, translators may be reluctant to do post-editing of legal texts and may prioritize translation from scratch (Levanaitė, 2021).

In this study, an initial objective was to analyze and compare post-editing actions made by professional translators in machine translated legal contracts in two languages pairs involving under-resourced languages, namely Lithuanian and Ukrainian. It was hypothesized that the main post-editing actions will involve issues related to noun phrases, or in other words, terms and legal jargon. However, we also aimed at sketching the tendencies in the variety of post-editing actions in general as well as the post-editors' opinions on the difficulty of the task of legal text post-editing.

Regarding the main issues to be addressed in a machine translated legal text, our study findings, as expected, are consistent with those obtained in other studies where terms and legal jargon are reported to be most problematic. Inconsistency of specialized legal terminology was found to be pronounced in machine translation from Hungarian to English (Kovács, 2022) as well as from English to Chinese (Cui et al., 2023). On the other hand, a study by Killman and Rodriguez-Castro (2022) in the English to Spanish language pair reported that machine translation was especially useful at the terminological and phraseological levels.

Our data also reflect the findings of Blain et al. (2011) that it is the changes in the noun phrases that are most prominent in post-editors' actions taken. In addition, we also observed some other types of post-editing actions, including verb phrase, co-reference and reordering changes. No post-editor introduced errors were observed in our sample, which may point to the fact that either the post-editors were experienced and skilled and/or the machine translation tool used was relatively high quality requiring less cognitive effort on the part of post-editors. This interpretation needs to be further tested with a larger sample and a different research design.

What concerns the post-editor's opinions about the difficulty of the post-editing task, the findings of our study may be seen to be in line with those obtained in a study by Cui et al. (2023) who found that legal texts were rated by semi-professional translators as requiring more cognitive effort than other types of texts. Although different in research design and aims of the study, our research results may also substantiate this fact since the post-editing task was reported to be a difficult task where human translation would have been prioritized. This preference may have been likely related to inconsistency of the terms provided by machine translation, which resulted in spending more time looking for the needed translation and exerting more cognitive effort in an attempt to use the terms in the consistent manner.

Post-editor's skill and effort are the main factors affecting post-editing speed (Koehn & Germann, 2014). In a study on post-editing a news text machine translated using 4 different systems by 4 post-editors, a great variance in post-editing speed was observed. The difficulty of the text to be post-edited could be among the reasons for slower productivity. In our case, the 6 Lithuanian post-editors indicated that it took them between 1 and 3 hours to complete the post-editing task, which shows huge difference. Although we did not measure the productivity in words per second (as in a study by Koehn & Germann, 2014), our results of great differences in the post-editing time may be an indirect indication of an association between the difficulty of the text and the time required. However, the finding should be tested in further studies.

## **7. Conclusions.**

This study presents findings of a comparative analysis of post-editing actions in a text of a legal contract machine translated from English to Lithuanian and from English to Ukrainian. The study found a tendency of noun phrase changes in terms of lexical units in both languages. This finding correlates well with the post-editors' expressed opinions that they were mostly struggling with terms and with the fact that the post-edited task was a legal

text, which is by and large loaded with legal terms and semi-fixed phrases. General purpose machine translation, which we used in this study, may not be accurate enough for legal purposes. Using and/or training domain specific machine translation engines with legal domain data would result in higher accuracy outputs. The results also point to the fact that having sufficient resources, namely parallel corpora, in a particular language pair is of crucial importance for higher quality machine translation output facilitating the post-editor's work.

The limitation of this study is the scope of the study limited by the type and domain of the text chosen for the analysis. Future studies may be focused on replication of the analysis with different types and amounts of the source text and with different source or target languages in a pair with Lithuanian and Ukrainian or between Lithuanian and Ukrainian. Comparative analyses may be performed to analyse correlations between post-editing actions and other variables like post-editing time, quality, etc.

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## Анотація

Юридичний переклад вимагає спеціального використання мови. Тому його часто вважають одним із найважливіших різновидів перекладу. Постредагування машинного перекладу набуває все більшого поширення. Навіть у мовах, які не можуть похвалитися великою кількістю ресурсів, переклад текстів певних жанрів рідко проводиться без використання машинного перекладу, оскільки якість результатів, здається, наближається до якості перекладу, виконаного людиною. Ця розвідка є спробою аналізу та порівняння рішень постредагування юридичних договорів, перекладених з англійської на литовську та українську мови. Юридичні договори є частиною юридичного дискурсу.

Мова таких текстів характеризується архаїчністю, складністю, культурною залежністю, є зазвичай насиченою формульними виразами, спеціалізованими термінами та латинізмами. Як для технічного типу мовлення для юридичного перекладу може використовуватися машинний переклад. Висновки дослідження ґрунтуються на результаті оцінки рішень постредагування машинного перекладу, прийнятих професійними перекладачами. Отримані дані демонструють і підтверджують результати попередніх досліджень інших мов, згідно з якими основними тенденціями є такі: зміни в іменникових та дієслівних конструкціях в обох мовах, кореференція та зміна порядку частин. Подальше вивчення визначеної проблеми дозволить доповнити (таргетувати й деталізувати) типологію дій із постредагування з урахуванням специфіки балтійських (литовської) та слов'янських (української) мов.

**Ключові слова:** машинний переклад, постредагування, дії з постредагування, юридичні договори.

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# MICROSTRUCTURAL REPRESENTATION OF NATIONALLY MARKED UNITS IN SCOTS-ENGLISH AND GAELIC-ENGLISH DICTIONARIES

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## **Abstract**

*The article presents the results of a comprehensive analysis of dictionary entries of nationally marked units in Scots-English and Gaelic-English dictionaries. For the first time, the dictionary entries for nationally marked units of the minority languages of Scots and Scottish Gaelic were analysed. The main microstructural components were considered and the main approaches to dictionary entries compiling were highlighted.*

*The analysis of the vocabulary entries of nationally marked units in Scots-English and Gaelic-English dictionaries has revealed both common and distinctive features. Among the common features it is worth mentioning the presence of such components as headword, synchronic data, diachronic data, marking, explanatory data, syntagmatic data, illustrations and examples.*

*Dictionary entries of nationally marked units in Scots-English dictionaries are distinguished by the presence of more complete data presentation, detailed explanations, as compared to the corresponding dictionary entries in Gaelic-English dictionaries.*

*On average, a dictionary entry for a nationally marked unit in a Scots-English dictionary includes up to seven or eight microstructure components, while a dictionary entry in a Gaelic-English dictionary includes*

from three to five components. At the same time, the interpretation of a nationally marked unit in Scots-English dictionaries is more rational due to the joint presentation of the interpretation and the equivalent in the target language, whereas Gaelic-English dictionaries only provide equivalents. The absence of illustrative examples for nationally marked units in Gaelic-English dictionaries is also considered as one of distinctive features.

**Keywords:** nationally marked units, microstructure, dictionary entry, Scots-English dictionaries, Gaelic-English dictionaries, lexicography.

### **1. Introduction.**

Compilation of minority language dictionaries undoubtedly has a significant impact on the use of these languages, their promotion and preservation. Dictionaries provide the necessary fixation of language units and the language code as a whole, contributing to raising the status of the language at all levels and promoting its active use in various fields by speakers and non-speakers, as well as strengthening language policy measures in countries. Of course, a dictionary alone cannot revive the language, however, it can attract the attention of speakers, promote the spread of the language, increase the number of speakers and its recognition in general.

For lexicographers, in cases where no standard exists, the concern is at least implicitly, but often explicitly, to help create a standard and to relegate variants to non- (or sub-) standard status (Connel, 1998, p. 234).

The adequate reproduction of nationally marked vocabulary in bilingual dictionaries of minority languages should be implemented in compliance with many parameters that would allow not only to understand the meaning of the concept, but also to use it correctly in everyday communication. It should be mentioned that the national and cultural specificity of a word is not always reflected in a dictionary, as these semantic components are sometimes classified as peripheral and assumed to be implicit, although they play a crucial role in preserving the national language code and shaping the national consciousness of speakers.

That is why, at present, special attention needs to be paid to the study and characterisation of the peculiarities of lexicographic fixation of nationally marked units of minority languages at the microstructural level.

The main approaches to the formation of dictionary entries have been widely studied both in Ukraine and abroad (E. Abdelzaher, B. Arias-Badia, S. Beer, B. Connel, O. Demska, G. Faas, R. Gouws, R. Hartmann, Gr. James, O. Kaliberda, Ch. Palladino, A. Villalva, H. Wiegand, G. Williams). The available domestic and foreign scientific research contains sufficient material to cover the main possible components of the microstructure of the dictionary (O. Chernysh, C. Flinz, F. Hausmann, S. Kholoduk, L. Prokopenko, L. Rodger, M. Smit, J. Szerszunowicz, H. Wiegand). However, approaches to the formation of a dictionary entry taking into account the national specificity of lexical units remain insufficiently studied. Usually, dictionary editions, using a unified structure of organisation of a dictionary entry, neglect certain components, which makes it impossible to adequately reproduce and present a nationally labelled unit taking into account its specificity.

The place of cultural knowledge in a bilingual dictionary is discussed by Rodger, who emphasizes that “the general-purpose bilingual dictionary can also serve as a bridge between cultures, or (as cultures are not monolithic) between two sets of cultural understandings” (Rodger, 2006, p. 572). It should be noted, in this connection, that the inclusion of glosses and culture boxes results in the hybrid character of a bilingual dictionary (Szerszunowicz, 2011, 2012).

As for the Scottish lexicographic process, as L. Pike and Ch. Robinson stress “... in the field of lexicography, Gaelic and Scots have turned the global status of their closest neighbour to their advantage. This is a direct result of the contribution the Scots have made to historical lexicography.... Our linguistic and cultural history will not be fully understood until an equally authoritative historical dictionary exists for Gaelic: a dictionary which will



complete the picture of our linguistic heritage and show, most particularly, the interfaces between Gaelic and Scots, Gaelic and Irish and Gaelic and English” (Pike & Robinson, 2010, p. 1509).

So far, the Scottish lexicographic tradition has been thoroughly understood and individual dictionaries that record the lexical structure of the Scots language have been analysed. In particular, there are several studies of the Scots lexicography historical development in the 18th–19th centuries. The vast majority of researchers focused their attention on detailing and reproducing the history of dictionary writing and compilation of this period, the most prominent Scottish lexicographers of this time. However, compared to Scots, there is much less research on the Scottish-Gaelic lexicographic processes, although interest in studying this topic is growing, which can be traced in reference to some scientific research in recent years (Lemeshchenko-Lagoda, 2021, p. 78).

Meanwhile, the microstructure of Scots-English and Gaelic-English dictionaries was analysed only for electronic ones (C. Patton, L. Pike, Ch. Robinson), excluded printed editions.

The following dictionaries were chosen for a comprehensive study “Gaelic Dictionary (Gaelic-English, English-Gaelic)” (MacLennan, 1997), “Gaelic-English and English-Gaelic dictionary” (Buchanan, 2006), “Essential Gaelic Dictionary” (Robertson, MacDonald, 2017), “The Pocket Gaelic-English, English-Gaelic Dictionary” (Watson, 2021), “The Essential Scots Dictionary” (Macleod, Cairns, 2012), “Concise Scots Dictionary” (Scottish language Dictionaries, 2017), “Collins Scots Dictionary” (Brookes, 2018).

## **2. Aim and objectives.**

The aim of the study is to conduct a comprehensive analysis of dictionary entries for nationally marked units and to identify the main microstructural components in lexicographical publications written in the minority languages of Scotland – Scots and Scottish Gaelic. According to the set aim Scots-English and Gaelic-English dictionaries are analysed in order to identify the main components of a dictionary entry for nationally marked units at the microstructural level; to compare approaches to the microstructural organisation of dictionary entries for nationally marked units in both languages under study; to identify common and distinctive features of microstructural organisation of dictionaries.

## **3. Methodology.**

Compiling dictionaries, lexicographers should clearly define the purpose, target audience and main functions of the future lexicographic publication. R. H. Gouws outlines that the dictionary functions are determined by the role the dictionary has to play within its user group. In order to achieve the function(s) foreseen for a given dictionary the appropriate data need to be selected and the necessary structures be employed to make the data accessible and the information retrievable by the intended target users (Gouws, 2017, p. 43).

Consequently, a clear understanding of the main purpose of the dictionary, as well as its main functions and the requirements that the reader will put to the publication, determine the actual structure of the dictionary at its various levels – from macro to microstructure, defining the main components of the dictionary entry as such.

A dictionary entry itself is considered as an independent lexical unit of a certain lexicographic work that corresponds to the general structure of this type of dictionary and is characterised by the appropriate presentation of information, the way of design, the outline of semantic relations, grammatical, syntactic, and stylistic remarks, etc. (Chernysh, 2020, p. 198).

R. R. K. Hartmann and G. James's "Dictionary of Lexicography" defines "a dictionary entry" as the basic reference unit in a dictionary or other reference system such as a library catalogue with a wide range of possible formats (microstructure). The most common component parts of which are the lemma, the formal comment on the 'topic' introduced by the lemma, the semantic 'comment' (Hartmann & James, 2002, p. 50).

Therefore, the main task of a dictionary entry is to provide comprehensive information about lexical unit, to illustrate its grammatical, paradigmatic, and syntagmatic features, indicate its etymology, the frequency and peculiarities of its use, area of its distribution, etc. Considering this, the microstructure should contain an exhaustive description of the lexical unit in all its various manifestations in the language.

Therefore, a list of goals and methodological choices should be taken into account by any forthcoming lexicographic project (Villalva, 2019, p. 30):

- a dictionary entry lists must be critically selected;
- entries must provide thorough lexicographic descriptions;
- a lexicographic model must be able to deal with multilingual issues.

Accordingly, the volume of a dictionary entry depends on the type of lexicographic unit, its semantic features, and the sphere of its functioning, and can vary from a small entry to several pages of in-depth scientific research.

E. M. Abdelzاهر clearly states that "... lexicographers may choose to include or discard specific pieces of etymological, external and internal information about a word. Internal word information is relevant to its morphology, orthography, semantics, and phonological features. Internal information embraces both facts relevant to the word's form and sense. External information refers to the relation between a word and other words. It includes paradigmatic relations (e.g., POS and synonyms), syntagmatic relations (e.g., collocations), relational links (e.g., cross-references to derivational forms) and usage information (e.g., genre, dialect)" (Abdelzاهر, 2022, p. 164).

As B. Arias-Badia and S. Torner emphasize "dictionaries offer a large amount of information about lemmas, such as part of speech, register, sense explanations, examples, or etymology, among many others ... therefore, as a structuring element microstructure is based on a previously established categorisation of the different types of information that a dictionary would offer, and an abstract schema for articles to accommodate this varied information and present it consistently" (Arias-Badia & Torner, 2023).

Standardizing the microstructure is also crucial, as doing so:

- 1) ensures ease of comprehension;
- 2) reduced the time required to find information;
- 3) creates a homogenous style throughout the dictionary;
- 4) limits individual entries' wording;
- 5) simplifies the dictionary's readability (Flinz, 2011, p. 84).

According to Ukrainian scholar O. Demska, the basic microstructure of a modern explanatory or translation dictionary should contain six mandatory elements: 1) the headword; 2) grammatical information; 3) interpretation or translation; 4) examples or exemplification; 5) certification of the example material; 6) phraseology; and one optional element that shows a tendency to be mandatory – stylistic characteristics, which may contain information about the functional-stylistic, emotional-expressive, emotional-evaluative, normative specificity of the headword (Demska, 2010).

L. Prokopenko and S. Kholoduk distinguish in the structure of a dictionary entry (Prokopenko & Kholoduk, 2018, pp. 74–75):

- the zone of the head unit (the actual register unit, stress, variants of forms);
- zone of grammatical information (grammatical meanings and forms);

- the zone of etymological information (indication of the source language, meaning of the etymon);
- semantisation zone (interpretation);
- the area of paradigmatic relations (generic concepts, single-level concepts, species concepts, synonymous relations, antonymic relations, part-whole);
- the area of illustrative examples (variants of lexical compatibility of register units and fragments of their speech use).

F. Hausmann and H. Wiegand (Hausmann & Wiegand, 1989, p. 341) identify twelve most important types of data that should be represented in the microstructure of a dictionary:

1. Synchronic identification data: data that identifies the form of the lemma sign and its morphological paradigm. This identifies features such as spelling, pronunciation, stress, part of speech, and conjugation.

2. Diachronic identification data: etymological data related to the lemma.

3. Marking: restrictions of use (by time, region, borrowing, style and situation, special fields of activity, frequency, attitude, connotation, taboo status, and cultural value). This type of marking is of great importance in a bilingual dictionary, especially when it comes to cultural items.

4. Explanatory data: the definition, which in a bilingual dictionary will be replaced by a translation equivalent; additional explanatory texts, such as linguistic or encyclopaedic descriptions, can be provided if necessary; such explanatory texts will be required in the case of culturally specific lexical items in a bilingual dictionary.

5. Syntagmatic data: syntactic characteristics of the lexical item represented by lemmas, phrases, and examples, which may be presented in the form of any type of illustrative examples, including quotations.

6. Paradigmatic data: the relation of a given lexical item to other lexical items (synonymy, antonymy, analogues, homonyms and paronyms, as well as word formation).

7. Different types of semantic data: data used to supplement the definition, e.g., in figurative, metaphorical sense, whether the lemma is used in proverbs or idioms.

8. Notes: Notes are sometimes presented in the form of boxes and separated from other microstructural data. The use of such notes can increase the usability of the dictionary and is also an ideal place to provide additional data related to national and cultural issues.

9. Illustrations: can be used to supplement definitions or examples.

10. Means of organisation: indicating the organisation of the article in the form of numbers, letters, brackets, punctuation marks, symbols.

11. Cross references.

12. Symbols of presentation or repetition: usually a tilde.

In fact, the methods and approaches to organising a dictionary entry at the microstructural level can vary considerably and depend on many factors. Therefore, when compiling dictionaries, lexicographers usually determine the type of information about a lexical item that should be included in a dictionary entry, taking into account the main purpose of the dictionary, its type, specialisation, volume, etc. However, quite often, when compiling dictionaries of minority languages, information of national and cultural significance is neglected. In our opinion, the commentary on the national marking of lexical items is important and can be presented in the form of etymological data, data on the peculiarities of use, marks, encyclopaedic comments, illustrations and examples, etc. At the same time, a certain moderation in the amount of information provided should be observed, considering the accessibility and comprehensibility of the data, the ease of searching and reading dictionary entries, the needs of the audience, etc. A dictionary entry should not be overloaded with information, but rather should be concise but informative, with the

maximum amount of necessary data. The correct interpretation of the phenomenon in the target language and the correct selection of an equivalent (full or partial), if available, also play a fundamental role.

#### 4. Results.

The analysis of dictionary entries for nationally marked units has revealed the following microstructural components as the most frequently occurring in Scots-English dictionaries: headword, synchronic data, diachronic data, marking, explanatory data, syntagmatic data, illustrations.

Thus, the dictionary entries in “Concise Scots Dictionary” (Scottish language Dictionaries, 2017) provides us with a full range of national and cultural information, indicating the etymology of the word, its use and meanings in different periods, supplemented by the necessary grammatical commentary. Both the headword and spelling variations are highlighted in bold, the specific geographical and historical marking is in italics. The explanatory data is presented in the form of elaborate interpretations and explanations together with partial equivalents (Table 1):

**Table 1**

<p><b>auld man, old man, aid man, Ork H&amp;I Uls owld man</b> / ɔld ‘man, old ‘man, ald ‘man; <i>Ork H&amp;I Uls</i> ʌuld ‘man/ n <b>1</b> an old man; a man of the older generation <i>la14-</i>. <b>2</b> a person’s father <i>la20-</i>. <b>3</b> southernwood <i>Artemisia abrotanum</i> <i>20- EC Bor.</i> <b>4</b> a grey lichen <i>Parmelia saxatilis</i> providing a yellowish or reddish brown dye <i>la19- Sh.</i> <b>auld man’s girse</b> a grey lichen <i>20- Sh.</i> <b>auld man’s milk</b> eggnog <i>18-</i>. <b>auld gray man on the stane</b> a grey lichen (growing on stones) <i>20-</i>. <b>auld mairriet man</b> a married man (from the day after his marriage) <i>20-</i>. <b>the Auld Man 1</b> the Devil <i>18-</i>. <b>2</b> a person unchanged in character <i>18-e19</i>. [AULD<sup>1,2</sup> + MAN]</p> <p><b>Auld Reekie, Auld Reikie</b> / ɔld ‘riki/ n a nickname for Edinburgh <i>18-</i>. [AULD<sup>1,2</sup> + reekie(REEK<sup>1,1</sup>)]</p> <p><b>Auld Toon, Old Town, Ork Ald Toon, Auld Town, ald toun</b> / ɔld tun, ‘old tʌun; <i>Ork</i> ‘ald tun/ n <b>1</b> a name for the oldest part of Aberdeen <i>16-</i>. <b>2</b> the part of Edinburgh along the Castle ridge, so called since the building of the New Town in the late 18th century <i>19-</i>. <b>3</b> the oldest part of any Scottish town <i>19-</i>. [AULD<sup>1,2</sup> + TOUN]</p> <p><b>auld wife, Ork ald wife</b> /ɔld ‘wʌif; <i>Ork</i> ald ‘wʌif/ n <b>1</b> an old woman <i>la17-</i>. <b>2</b> a rotating chimney cowl <i>19-</i>. <b>3</b> a fussy, gossipy man <i>20-</i>. <b>4</b> the mother of the speaker or person referred to <i>la20-</i>. <b>auld wifie, old wifie 1</b> an old woman <i>20-</i>. <b>2</b> the mother of the speaker or person referred to <i>la20- WC.</i> <b>auld wives’ mutches 1</b> a plant with a bonnet-like flower, the columbine <i>Aquilegia vulgaris</i> or monkshood <i>Aconitum napellus</i> <i>la19-</i>. <b>2</b> a rotating chimney cowl <i>20-</i>. <b>auld wifie’s sooker</b> a mint imperial <i>20- NE T EC Bor.</i> [AULD<sup>1,2</sup> + WIFE]</p> <p><b>Auld Year</b> / ɔld ‘jɪr/ n the year that is about to end <i>19-</i>. Compare New-year. <b>Auld Year’s Day</b> the last day of the year <i>la19-</i>. <b>Auld Year’s Nicht</b> the last night of the year, New Year’s Eve <i>20-</i>. [AULD<sup>1,2</sup> + YEAR]</p>
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In its turn, “Collins Scots Dictionary” (Brookes, 2018) contains less data, generally focusing on explanatory and diachronic data. Although additional notes on the origin or use of nationally marked units is available in square brackets. The headword is highlighted in bold. Also, some of the dictionary entries have illustrations and examples that greatly facilitates the understanding of the peculiarities of the use of lexical units in situational speech (Table 2).

**Table 2**

<p><b>Auld Enemy</b> In Scotland, the English are sometimes referred to as the <b>Auld Enemy</b>, especially now in a sporting context: <i>The worst Scot nightmare, a gubbing by the Auld Enemy, was realized.</i> [This phrase refers to the long history of conflict between the two countries]</p> <p><b>Auld Reekie Auld Reekie</b> is a nickname for Edinburgh. [The name means literally <i>Old Smoky</i>]</p> <p><b>Ayrshire</b> (<i>air-sheer</i> or <i>air-shire</i>) <b>Ayrshire</b> is a historic county in Southwest Scotland, on the east coast of the Firth of Clyde. It is now administered by three council areas: North Ayrshire, South Ayrshire, and East Ayrshire.</p>
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“The Essential Scots Dictionary” (Macleod & Cairns, 2012) on the contrary, does not provide a sufficient amount of data for the full disclosure of the national-cultural component. The headword is highlighted in bold. As ‘Explanatory data’ an equivalent is used that does not convey all the national and cultural colour, and may give a false impression of the concept, and contribute to the incorrect use of the nationally marked lexical unit in speech. However, some dictionary entries contain illustrative examples (Table 3):

Table 3

**the auld enemy** the English.

**auld-farran(t)** 1 old-fashioned, quaint. 2 (*of children*) having the ways of older people; precocious.

**the Old Firm** Rangers and Celtic football teams considered together.

**Auld Reekie** nickname for Edinburgh.

**Auntie Beenie** a rather old-fashioned-looking woman or her clothes: ‘*She wears Auntie Beenie claes*’.

Dictionary articles for nationally marked units in Gaelic-English dictionaries are more concise and microstructurally characterized by the presence of up to five components: headword, synchronic data, diachronic data, marking and explanatory data.

The “Essential Gaelic Dictionary” (Robertson & MacDonald, 2017) provides with synchronic data including spelling variations and morphological data. Both the headword and spelling variations are highlighted in bold. Explanatory data is presented in the form of equivalent (Table 4).

Table 4

**Samhain** *n* **Samhna** *f* **an t-Samhain** November **Oidhche Shamhna** *f* Halloween

The dictionary entries of “The Pocket Gaelic-English, English-Gaelic Dictionary” (Watson, 2021) and “Gaelic-English and English-Gaelic dictionary” (Buchanan, 2006) are also concise and include only headword, synchronic data, explanatory data (equivalent) (Tables 5, 6):

Table 5

**Samhain** [sau.iN'] *f* Hallowtide; All Saints'/Souls' Day; **Oidhche Shamhna** [oi.ch'I haunə] *f* Halloween; (*with art*) **an t-Samhain** [ən tau.iN'] November.

Table 6

**Samhain**, *gen* **Samhna** *nf* 1 Hallowtide, All Souls'/Saints' Day Oidhche Shamhna Halloween; 2 *with art*, **an t-Samhain** November

“Gaelic Dictionary (Gaelic-English, English-Gaelic)” (MacLennan, 1997) provides with diachronic data and marking in addition to the headword, synchronic data, explanatory data. The explanatory data includes not only equivalents but also short explanation. Both the headword and spelling variations are highlighted in bold. (Table 7):

Table 7

**samhuinn**, sāv-im' *n. f.* Hallowtide, the feast of All Souls; **o Bhealltainn gu samhuinn**, from May day to Hallowday. *Ir.* **samhain**. *E.Ir.* **samhuin**, **samuin**, **samain**. *O.Celt.* samani-. *O'Cl.* suggests **sam** + **fuin** = end of summer.

Analysing dictionary entries for nationally marked lexical units in Gaelic-English dictionaries, the main drawback is characterised by a certain lack of etymological data, territorial and stylistic markings, which makes it impossible for the user to use the given

concept correctly or the lack of verbal illustrations reflecting the functioning of the nationally marked lexical unit in speech. Moreover, the use of equivalents to the indicated object or phenomenon as explanatory data leads to the neglect of part of the national and cultural information encoded, which cause the complete loss of the national component.

### **5. Discussion.**

Lexicographic fixation of nationally marked units of minority languages is currently one of the most important tasks of modern lexicographic science. The variety of approaches to the design and presentation of dictionary entries at the microstructural level, on the one hand, provides a wide range of tools for lexicographers when compiling dictionaries, and on the other hand, complicates the selection of the most important components for inclusion.

The analysis of the dictionary entries of the Scots-English and Gaelic-English dictionaries has revealed the insufficiency and sometimes inappropriateness of certain microstructural components that have a negative impact on the transmission of the national and cultural component of meaning, which can lead to incorrect use of the nationally marked unit in situational speech. Among the main components of dictionary entries of the Scots-English and Gaelic-English dictionaries are a headword, synchronic data, diachronic data, marking, explanatory data, syntagmatic data, illustrations.

Moreover, the use of only the equivalent interpretation leads to the loss of national and cultural colouring as such, having a negative impact on the cultural function of the language. Thus, the incorrect fixation of nationally marked units in perspective can lead to the loss of national and cultural identity as such, and the loss of understanding of the uniqueness of the language and culture by native speakers.

In our opinion, the most important microstructural components should be the following: a headword, synchronic data, diachronic data, marking, explanatory data, syntagmatic data, semantic data, cross-references, notes, etc. Of course, a broad description and explanation for each nationally marked unit may lead to a large volume of dictionary entries, which in turn will lead to inconvenience in using the dictionary. However, in any case, one cannot neglect the data that actually constitute the very essence of nationally marked units, without which it loses its deeper meaning.

### **6. Conclusions.**

The paper presents the results of the comprehensive analysis of dictionary entries for nationally marked units of Scots and Scottish Gaelic minority languages. Prior to the dictionary entries analysis, the main views of domestic and foreign scholars regarding the main approaches to the interpretation of the microstructure of a dictionary were analysed. The main components that may constitute the microstructure of a dictionary were also characterised and the variability of approaches was emphasised, considering various factors: the type of dictionary, its function, target reader, etc.

Thus, compiling a dictionary entry for a nationally marked unit of a minority language involves, first of all, its clear organisation, the presence of all the elements necessary for its adequate understanding and reproduction.

The actual analysis of lexicographic fixation of nationally marked units of the Scots and Scottish Gaelic languages revealed both common and distinctive characteristics.

Dictionary entries for nationally marked units in Scots-English dictionaries are characterised by a more extensive and complete presentation of the data required to reveal the meaning of a lexical unit with a national component, compared to the corresponding dictionary entries in Gaelic-English dictionaries. For example, a dictionary entry in a Scots-English dictionary has on average up to seven-eight components (a headword, synchronic

data, diachronic data, marking, explanatory data, syntagmatic data, illustrations), while a dictionary entry in a Gaelic-English dictionary contains from three to five components (a headword, synchronic data, diachronic data, marking, explanatory data).

The explanatory data for nationally marked units is best presented in Scots-English dictionaries as it combines the interpretation with the selection of equivalents. In contrast, Gaelic-English dictionaries provide only the equivalent. The absence in Gaelic-English dictionaries of illustrative examples for nationally marked units is also a negative rather than a positive feature.

However, despite all the advantages and disadvantages, the lexicographic recording of nationally marked units in Scots-English and Gaelic-English dictionaries at the microstructural level requires further development and detailed study.

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### **Анотація**

У статті представлено результати комплексного аналізу словникових статей національно маркованих одиниць у шотландсько (скотс)-англійських та гельсько-англійських словниках. Уперше проаналізовано словникові статті до національно маркованих одиниць міноритарних мов Шотландії – скотс шотландської гельської. Розглянуто основні мікроструктурні компоненти та виокремлено основні підходи до укладання словникових статей національно маркованих одиниць міноритарних мов.

Аналіз словникових статей національно маркованих одиниць у шотландсько (скотс)-англійських та гельсько-англійських словниках виявив як спільні, так і відмінні риси. Серед спільних рис варто відзначити наявність таких компонентів, як заголовне слово, синхронні дані, діахронні дані, маркування, пояснювальні дані, синтагматичні дані, ілюстрації та приклади.

Словникові статті національно маркованих одиниць у шотландсько (скотс)-англійських словниках вирізняються наявністю більш повного представлення даних, детальних пояснень та тлумачень, порівняно з відповідними словниковими статтями до національно маркованих одиниць у гельсько-англійських словниках.

Тому в середньому словникова стаття національно маркованої одиниці в шотландсько (скотс)-англійському словнику включає до семи-восьми компонентів мікроструктури, тоді як словникова стаття національно маркованої одиниці в гельсько-англійському словнику складається з трьох-п'яти мікроструктурних компонентів. При цьому тлумачення національно маркованої одиниці в шотландсько (скотс)-англійських словниках є більш раціональним завдяки спільному поданню власне розгорнутого тлумачення та еквівалента мовою перекладу, тоді як гельсько-англійські словники подають лише еквіваленти мовою перекладу. Відсутність ілюстративних прикладів використання національно маркованих одиниць у ситуативному мовленні у гельсько-англійських словниках також вважається однією з відмінних рис.

**Ключові слова:** національно марковані одиниці, мікроструктура, словникова стаття, скотс-англійські словники, гельсько-англійські словники, лексикографія.



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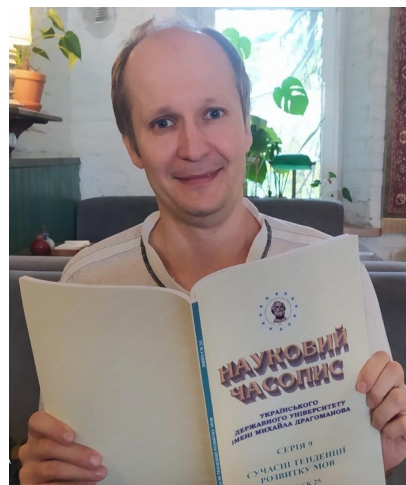
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## DOCUMENT TRANSLATION FOR CHARITABLE ORGANIZATIONS ASSISTING UKRAINIAN REFUGEES: CHALLENGES AND STRATEGIES

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### Abstract

*The Russian-Ukrainian war displaced millions of Ukrainians many of whom now rely on international and local organizations in their host countries for help with daily problems of integration. One such aspect of charitable work is providing translation services. This article analyses the challenges and strategies of English, Ukrainian, and Russian document translation for charitable organizations assisting Ukrainian refugees. Drawing on professional experience of collaboration with a charitable organization, the author discusses communication that ensures efficient management of translation projects, outlines the certification procedure that confirms the translator's responsibility for the accuracy of translation, and examines the types of documents that Ukrainian refugees commonly need to have translated. The author describes in detail the formatting of the translated documents that is required to make them accessible and easily comprehensible. The article delves into the challenges that the translator is faced with when working with the documents of Ukrainian refugees, focusing on such issues as illegible handwriting and stamps, the low quality of the images of the original documents, typographical errors, abbreviations and terms, formatting intricacies, temporal limitations, and confidentiality. Analysing the process of proofreading that improves the quality of translation, the author argues that translation is a social activity that requires collaboration between the translator, fellow professionals, legal experts, clients, local actors and stakeholders. Finally, this article explores the tools and strategies that enable translators to work consistently and efficiently. It examines how the translator can use machine translators, online corpus dictionaries, document translation templates, guidelines, and other aids to provide reliable, timely, accurate, and helpful translation services to Ukrainian refugees.*

**Keywords:** document translation, translation from Ukrainian to English, written translation, translation tools, translation strategies, document translation templates.

### **1. Introduction.**

The Russian-Ukrainian war displaced millions of Ukrainians many of whom now rely on international and local organizations in their host countries for help with daily problems of integration. One such aspect of charitable work is providing translation services for Ukrainian refugees. Because the demand for Ukrainian translation has risen dramatically in such countries as Poland, Germany, Italy, the United States, Canada, Spain, Belgium, the United Kingdom, and many others, organizations in these countries sometimes outsource translation work to professionals in Ukraine. This is how I have come in contact with one such charitable organization in an English-speaking country. This organization provides free professional translation support to migrants, translating documents to help displaced persons access vital resources. While the translation service provided by the organization is free to migrants, the translators are paid for their work. The organization assists refugees from different countries, including Ukraine, and offers document translation services in many languages, such as Arabic, Chinese, Dari/Persian, English, French, German, Greek, Haitian Creole, Kurdish, Pashto, Portuguese, Russian, Spanish, Swedish, Turkish, Ukrainian, and Urdu. It acts as an intermediary between migrants from around the world and local organizations, authorities, and individuals with whom the migrants interact. Having translated various documents into English, as well as Ukrainian and Russian, for this charitable organization, I would like to share my professional experience, focusing on the first seven months since November 2022 when I started my document translation work. To protect the confidentiality of its clients, I will not give the name of the organization for which I have been providing translation services and with which I continue to collaborate. However, I will discuss in detail the kind of documents I translated during the first months of my work and will summarize my observations on the crucial strategies and challenges of document translation for charitable organizations assisting Ukrainian refugees.

### **2. Literature Review.**

In my 2019 popular article “Bureaucracy as secular spirituality,” I argued that when people migrate to a different country, they need to register with local authorities, whose bureaucratic procedures empower migrants to “connect to local networks of support,” as well as access vital resources and services. I asserted that “bureaucratic practices can help establish connection to complex social structures” (Shopin, 2019). However, the absence of the relevant documents or of their translation in the language of the host country can lead to the exclusion and disenfranchisement of migrants. Ukrainian refugees, fleeing the Russian aggression, can also face this problem since Ukrainian-language documents, such as cards of preventive vaccinations, birth and marriage certificates, education certificates, medical records, and driving licenses, can be unacceptable to the local authorities, schools, and hospitals in the host country since they are inaccessible due to the language barrier. This issue can be either mitigated or overcome through translation, which should be seen as a practice that facilitates inclusion and integration since it helps migrants to have the documents from their home country recognized by the local authorities, social service providers, and other actors in their host countries.

Academic studies across disciplines have recently come to understand translation as a means for social inclusion. Lack of translation is now considered to be a potential barrier to accessing vital resources. For example, Wine Tisseur (2021) provides guidance on linking the policies of international non-government organizations to values of linguistic inclusiveness and emphasizes the need for interpreting and translation from and into local languages. Outlining ways to facilitate continued participation of Ukrainian refugees in clinical trials, Bloswick et al. (2022) point out the sponsors’ obligations related to translation. In their recent article for *Nature*, Velez et al. (2023) also find that expenses on consent

document translation can hinder inclusive clinical trial enrolment. People with limited English language proficiency thus might be excluded from the medical research that could benefit them in the long run. Translation can help mitigate this limitation and break the barriers to help Ukrainians abroad who do not speak local languages access essential resources and services.

In their insightful article “The craft of translation: documentary practices within immigration advocacy in the United States” (2023), Susan Bibler Coutin and Véronique Fortin adopt an anthropological approach to explore the craft of document translation in contexts of immigration legal advocacy. They observe that distrust and resource scarcity poison the climate in this field as immigrants face steep challenges, including the requirement that all documents must be translated into English. Through their ethnographic perspective on immigration document translation and extensive fieldwork in a nonprofit organization providing legal services to low-income Spanish-speaking immigrants, Coutin and Fortin (2023, p. 24) come to the conclusion that translation is “a craft that involves exercising discretion.” As I will try to show in this article, in my professional practice I am acutely aware of the importance of exercising discretion. I also agree with Coutin and Fortin that careful translation can help counter the alienating aspects of bureaucracy. Moreover, translation enables Ukrainian refugees and other vulnerable groups gain visibility and inclusion. Having their home country documents translated into English, Ukrainian refugees can improve their access to such vital resources as medical care, social services, education, and employment opportunities. In his essay “Is translation possible?”, the English writer and literary critic Anthony Burgess (1984, p. 4) made a sensitive observation that “translation is not a matter of words only: it is a matter of making intelligible a whole culture.” To translate a document from one language to another in this case means to integrate the information in the document into a new cultural environment and help the holder of the document establish new social connections. This goal requires not only accurate translation, but also an inclusive approach that aspires to make the document accessible and helpful. Therefore, the focus of this article is practical and procedural, since I analyze document translation as a professional practice, dwelling on its key challenges and describing the strategies that can help overcome them.

### ***3. Aim and Objectives.***

This article is aimed at analysing the challenges and strategies of English, Ukrainian, and Russian document translation for charitable organizations assisting Ukrainian refugees in their interaction with the local authorities and other actors and stakeholders in host countries. Drawing on my professional experience of collaboration with one such charitable organization, I will first discuss the ways I communicate with its staff to manage translation projects efficiently and briefly outline the certification procedure that confirms the translator’s responsibility for the accuracy of translation, then I will categorize the types of documents I translated in the first seven months of my work since November 2022. Afterwards, I intend to discuss the formatting of the translated documents that is required to make them accessible and easy to understand. The next objective of this article is to study the challenges that the translator is faced with when working with the documents of Ukrainian refugees, focusing on such issues as illegible handwriting and stamps, the low quality of the images of the original documents, typographical errors and mistakes, abbreviations and specific terms, formatting intricacies, temporal limitations, and confidentiality. Another objective of this article is to discuss the process of proofreading that improves the quality of the translation. I will argue that translation is a social activity that requires collaboration between the translator, fellow professionals, legal experts, clients and local actors and stakeholders. Finally, this article explores the tools and strategies that enable translators to

work consistently and efficiently. It will examine how the translator can use machine translators, online corpus dictionaries, document translation templates, guidelines, and other aids to provide reliable, timely, accurate, and helpful translation services to Ukrainian refugees.

#### **4. Results and Discussion.**

##### **4.1. Communication.**

Efficient and reliable communication between the translator and the charitable organization for the purpose of assisting Ukrainian refugees is of paramount importance. Since I have never been in direct contact with the clients of the organization, I have to discuss any translation issues that arise with its staff. While I communicate with the management of the charitable organization exclusively by e-mail, SMS and WhatsApp messages, as well as phone calls, can also be used by other translators. The expectation is that within three hours during normal business hours (from Monday to Friday, 9am – 6pm) in the host country, after receiving the message from the organization, the translator should reply back, if only to acknowledge the receipt of the task and confirm they can accomplish it. Since I communicate with the organization exclusively via e-mail messages, I sometimes use my smartphone to give the initial reply. During the e-mail correspondence, it is highly recommended to reply to the message directly, within the same thread, without starting new ones. The deadline is usually within two to four days, but sometimes I have a week or two to perform the translation task, depending on the word count. On some occasions, I need to do the translation as soon as it is possible because there is an urgent need in having the document translated into English. In this case, I have to focus on the task immediately. At the weekend, there is no communication between the translator and the organization.

##### **4.2. Certification.**

The charitable organization provides a certificate of translation, which the translator signs digitally and sends back as a Word or PDF document to confirm their responsibility for the quality of the translation. The recognition of the translation thus depends on the authority of the charitable organization in the host country as well as the professional credentials of the translator. The autonomy of public and private institutions in the host country enables them to recognize the authority of the charitable organization and the qualification of the translator, which makes it possible for a Ukrainian translator without a local professional license to provide translation services to Ukrainian refugees abroad. Sometimes partner organizations can ask the translator to fill in and sign their own certificate of translation.

##### **4.3. Types of Documents.**

Now it is reasonable to review the types of documents that are commonly translated to assist Ukrainian refugees abroad. While my professional experience is neither comprehensive nor representative, it can be educational and helpful in understanding what skills translators need to acquire to help Ukrainian refugees access vital services in host countries and thus improve their living conditions there.

From November 2022 to May 2023, I performed 93 translations of documents, ranging from 60 to 3000 words in length, for a charitable organization assisting Ukrainian refugees in an English-speaking country. Among the 81 documents that I translated into English, there were several distinct types, namely 32 **medical records** (8 cards of preventive vaccinations, a few extracts from outpatient cards, records of medical examinations, PT and MRI scan results, blood tests, advisory conclusions of specialist doctors, etc.), 21 **identification documents** (16 driving licenses, 3 pension certificates, 2 internal

Ukrainian passports, and 1 international Ukrainian passport, even though the latter displays the English translation I was asked to translate it into English – I assume the local authorities wanted to make sure that the Ukrainian text was identical to the English version found in the Ukrainian passport), 9 **certificates of civil status** (7 birth and 2 marriage certificates), 8 **employment and work-related documents** (1 document outlining the tasks and key indicators of effectiveness, efficiency and quality of professional activity of a civil servant, 2 recommendation letters from colleagues, 5 popular articles describing the work and political engagement of the refugees who could be persecuted by the Russian occupiers), 5 **financial documents** (utility bills, receipts, bank transactions, and account balance reports), 3 **property documents** (1 real estate lease/rent agreement, 1 apartment purchase and sale agreement, 1 extract from the State Register of Property Rights to Immovable Property on the registration of the right of ownership), 3 **education certificates** (1 school certificate, 2 university diplomas). Since May 2023, I have also translated into English several divorce certificates, military registration documents, military summons, Wikipedia pages, and different kinds of medical records.

Furthermore, in the first seven months of my work, I performed twelve translations of English-language documents into Ukrainian and Russian for other charitable organizations that intended to provide help to Ukrainian refugees and wanted to interact with them in their preferred language. To this end, these organizations contacted the organization for which I provided translation services. There were 6 Ukrainian and an equal number of Russian translations since I was asked to translate each document in both languages. These were **client questionnaires** and **application forms**, among them an intake form, an authorization to release information, a client rights and grievance policy. Besides, I translated several **e-mail messages** from English to Ukrainian and Russian to facilitate the communication between the charitable organization and the refugees. English to Ukrainian and Russian translations comprised a minor part of my work, but they indicated that local actors intended to reach out to Ukrainian refugees, accommodating their language preferences. While I usually receive the original Ukrainian documents for translation into English as image files or PDF documents, the English documents for translation into Ukrainian and Russian were sent to me as Word documents, and it was easier to work with them in terms of formatting.

#### **4.4. Formatting.**

The translator receives copies of original documents as JPEG and PDF files, as well as Word files, thus dealing with both images and text documents. Translations are saved as Word documents. The name of the translation file should include the original file name and additionally indicate the language into which the document has been translated. If the initial file name is image1.jpeg, it is important to send back its English translation as a Word document entitled image1.English.docx. The charitable organization deals with documents in many different languages, and not everyone (staff, attorneys and staff at partner organizations, clients) has language competency in the target language, so the best way to understand which translations correspond to which original documents is by the file name.

The translation should have the same number of pages as the original document. To this end, the translator can change the font size and alter the margins to some extent, i.e., the font should be possible to read if the document is printed and the margins should not be smaller than a certain minimum width. If it is still impossible to fit all the text from one page of the original into one page in the translation, then the excess text can go on a second page, but no other text should be on the second page, and the next page in the original should go on a new page in the translation. If there are page numbers in the original document, then there should be page numbers in the translation. The translator may use text boxes and tables to

replicate text placement in the original. The indentations in the translation document should be similar to the ones in the original.

The translator should pay attention to font style and size. If a serif font is used in the original document, the translator should also use a serif font. A sans serif font should be used in the translation when it appears in the original document. If text is capitalized in the original, then it should also be capitalized in the translation. If text is bold in the original, then it should be bold in the translation. If text is italicized in the original, then it should be italicized in the translation. The translator should also italicize handwritten text, which can help the reader identify the handwritten parts of the source text. If text is underlined in the original, it should also be underlined in the translation. Font size in the translation should correspond roughly with the font size in the original. The exact font size is not as important as the relative font size. If one piece of text is noticeably smaller than another piece of text in the original, then this should be reflected in the translation.

To avoid ambiguity or misunderstanding, the translator should write down all the dates spelling out the name of the month. Thus, if the date in the original document says *23/10/2001*, the translator can change it to *23 October 2001* or *October 23, 2001*. Another notable formatting difference is that in some English-speaking countries the decimal place is indicated by a period, whereas a comma is used for this purpose in the Ukrainian language. The decimal separator, also known as the radix character, is different in the source and target texts. Thus, when the translator sees *0,5 мм* in the original Ukrainian document, they should write down this measurement as *0.5 mm* in the English translation. In English, commas are sometimes used to separate groups of thousands, while in Ukrainian a space is used instead. If the original Ukrainian document indicates the number *5 356 200*, the translator might write it down as *5,356,200* in the English document.

Translating the name of an organization from Ukrainian to English, the translator should first consult online resources (the official website of the organization, state registers of enterprises and organizations, etc.) to ascertain if the Ukrainian organization has an English name already in use. It is better use the pre-existing and recognizable name of the organization. If it does not have an established name in English, the translator should render the name into the target language. As for personal names, in Ukrainian documents it is common to indicate first the surname and then the first name (*Павленко Петро Іванович*), whereas in English it is more natural to give the first name before the surname (*Petro Ivanovych Pavlenko*). To transliterate Ukrainian personal names in Latin script, I consult the officially approved Ukrainian standards and use the government website <https://czo.gov.ua/translit> as an online tool to perform transliteration from Ukrainian into English automatically. Sometimes the personal documents that I work with contain the Ukrainian name in Latin script, in which case I use the Latin transliteration of the name as it is written down in the existing document. It is not always the case that the Latin transliteration of the Ukrainian name that I find in an official document is consistent with the government-approved standards, in which case I still use the transliteration indicated in the already issued document because it is vital for people to have a recognizable and consistent spelling of their name in English regardless of the standards of transliteration, which have changed several times in the last few decades in Ukraine.

Since Ukrainian and English alphabets are distinctly different, in cases of transliteration (e.g., document series) from Ukrainian to English, Ukrainian letters should be replaced with the closest English letters in appearance (e.g., the Ukrainian letter *Р* can be written down as the identical-looking English letter *P*), but this is sometimes impossible because there is no similarity, in which case the translator can focus on the way the letters are pronounced, hence I can transliterate *Ю* as *U*.

When translating an address from Ukrainian to English, the translator should keep in mind that the English version of the address that they provide could be used to send correspondence to Ukraine. There is no need to translate the words *вулиця, будинок, квартира*. Thus, Ukrainian addresses should be transliterated to Latin script. For example, *вул. Михайла Грушевського, буд. 35, кв. 24, м. Київ, 02222, Україна* should be written down as *vul. Mykhaila Hrushevskoho, bud. 35, kv. 24, m. Kyiv, 02222, Ukraine*. At the same time, there is no need to transliterate English-language addresses into Ukrainian when translating documents from Ukrainian to English because a non-Latin script cannot be used to send correspondence to countries that use Latin script. Thus, there is no need to either translate or transliterate addresses from English into Ukrainian since it could make it difficult to send correspondence to an English-speaking country.

When I translate Ukrainian abbreviations into English or English abbreviations into Ukrainian or Russian, I always spell out them in full. For example, *ЄДРПОУ* is rendered as *Unified State Register of Enterprises and Organizations of Ukraine* and not *USREOU* or *EDRPOU* since such transliterations of a Ukrainian abbreviation cannot help an English speaker understand the translation. For this reason, I translate all abbreviations by spelling them out in the target language, which makes formatting somewhat more difficult because such translations take more space on the page.

Square brackets can be used to indicate logos, stamps and signatures in the translation. Some documents contain logos that include text or are text-based. The translator should translate the text in the logo after indicating the logo by typing [Logo:]. If the logo does not contain text, the translator should simply indicate it by typing [Logo] where it appears in the original text. Many Ukrainian documents contain stamps. If the stamp contains legible text, the translator should translate the text after indicating the stamp by typing [Stamp:]. If the stamp does not contain text, the translator should indicate the stamp by typing [Stamp]. If the stamp is illegible, the translator can indicate it by typing [Illegible Stamp]. (In some cases, it is possible to reconstruct the text in the stamp by consulting the relevant online resources, such as the Unified State Register of Legal Entities and Entrepreneurs.) Signatures should be indicated as [*Signature*] or [*Illegible Signature*]. The words *Signature* and *Illegible Signature* are italicized because signatures are always handwritten. Square brackets can also be used to indicate that the text is illegible or cut off. If some text is illegible or cut off, the translator should indicate this by typing [illegible] or [cut off] in the appropriate place.

If there is a profile photo in the original document, the translator could indicate it with the word [Photo] in square brackets inside a box in the relevant place on the page of the translation. If there is a coat of arms in the original document, the translator can apply the same strategy to rendering it in the target text. For example, if there is the coat of arms of Ukraine in the original document, the translator can create a single-celled table (a box) in which they can write down the words [The Coat of Arms of Ukraine].

#### 4.5. Challenges.

**Illegible or barely legible handwriting** is one of the most common challenges when translating Ukrainian documents into English. To solve this issue, the translator should find the information about the relevant topic, institution, organization, or person in order to understand the context. Online resources can be invaluable to the translator at this stage. Later they can compare different parts of the document or different documents filled in by the same official to understand the idiosyncrasies of their handwriting, identifying specific letters and mannerisms of the writer. The issue of illegible handwriting is often compounded by **the low quality of the images of the original documents**. Some parts of the document

can be blurred or even cut off. In some cases, the translator should request an image of the original document of better quality to avoid misunderstanding. **Illegible stamps** are a common problem due not only to the low quality of some of the images but mostly because many Ukrainian stamps are faint and leave a barely legible mark on the original document. In this case, it is possible to find the information about the stamp online since the stamps provide standard data about organizations and enterprises in Ukraine. This is possible only if one can at least identify some of the key features and information in the stamp.

Sometimes **the names and the data in the original document can contain typographical errors or mistakes**, in which case the translator should make sure they provide the clearest interpretation of the information. If the same surname is spelt differently in different parts of the same document or in two different documents, then the translator can write a note to those who have requested the translation, explaining that it must have been an automatic mistake. The data should be rendered so that such mistakes are either corrected or clearly understood as such. Sometimes it can be hard to judge such cases, and the translator should use their professional knowledge and exercise discretion to address these thorny issues and resolve them successfully so that clients can access the relevant resources. This is also a matter of the translator's agency. Here I agree with Coutin and Fortin (2023, p. 35) that "translators exert agency through the decisions they make about word choice, format, and translation philosophy."

In the first few months of my work, I found that it was crucial **to name the documents correctly and to organize them in folders**. Since the staff of the charitable organization do not speak Ukrainian or Russian, it is helpful to name the documents so that they can be easily related by the organization to the relevant original files.

**Abbreviations and specific terms** can be hard to translate into the target language, and the translator should look up the relevant information online or in dictionaries, manuals, and research articles. Once the translator has obtained a tentative translation of the term in question, they should make sure this term is used the same way in the target language. To this end, I google the relevant term in the target language using quotation marks (e.g., "general blood test" for *загальний аналіз крові*), which allows me to check the usage of the term in context. As I have already pointed out and would like to emphasize once again, abbreviations should be rendered by spelling them out in full because this makes the translation more readily understandable.

**The tables, fonts, and indentations in the original document** can be difficult to render in the target text. The translator should learn how to use tables and various formatting tools in Word documents. Sometimes the original document has **misplaced handwritten data outside the relevant table cells or columns**, in which case the translator should decide whether to keep this idiosyncrasy or adjust the translation according to the desired format. It is better to mostly preserve the original formatting and appearance of the document so that the reader of the translation can easily check it against the source document.

**Time** is another challenge that the translator should take into account. First, there is a time difference between Ukraine and the host country, and hence communication between the charitable organization and the translator takes place during different times of the day and immediate replies cannot be expected. The time difference of several hours does not present any critical challenges but it has an impact on communication. Secondly, **some translations are urgent and need to be done within a short period of time**. This temporal challenge is much more difficult and requires hard and efficient work and the ability to manage time.

Finally, **confidentiality** is essential because the translator deals with personal data that is often protected by local and international law. Thus, **the translator should not**



**disclose personal information about the clients** to any third parties or the public. Therefore, in this article I do not indicate the name and location of the charitable organization for which I provide translation services in order to protect the refugees and displaced persons who turn to it for help. I also do not give the names of anyone in the organization since they deal with sensitive issues that impact Ukrainian refugees and other vulnerable groups seeking their assistance.

#### **4.6. Proofreading.**

While the translator is ultimately responsible for the final translation of the document, all translations are also carefully proofread by the project manager (a professional translator themselves but working with different languages), checked by the lawyer of the organization, the client, and the organization which has requested the translation from the client.

Mistakes can be identified and corrected at various stages of the proofreading process. First, sometimes I identify mistakes at the stage of re-reading the translation after its completion. It is critically important to carefully read the completed translation to make sure that there are no typographical errors or automatic mistakes. Secondly, the manager of the charitable organization, who is a professional translator, albeit not of Ukrainian, sometimes corrects my English translation. For example, I rendered *розіграш подарунків* as *a lottery of gifts*, but my colleague and supervisor changed my translation to *a gift raffle*. While my translation could have been understandable, its corrected version is in line with common usage in the host country. My fellow translator regularly notices minor issues with my English translations and corrects them with my permission, since they are a native English speaker and know well how to format the translation documents. Because they are not fluent in Ukrainian or Russian, my translations into Ukrainian and Russian cannot be proofread at this stage. Third, the attorney of the charitable organization carefully compares the original document with the translation and can identify any points missing from the latter. Once the attorney found that I had missed a clause in a real estate lease and rent agreement. They managed to identify this omission because I diligently numbered all the clauses as they are numbered in the original document. As a result of this careful attention to numbers, the attorney noticed that clause 6.3.1 (*Наймодавець не надає наймачу право зареєструватися (прописатися) за адресою об'єкта нерухомості / The Landlord does not give the right to the Tenant to register under the address of the Real Estate Object*) was clearly missing as clause 6.3 was immediately followed by clause 6.4. It is important to carefully check all the figures in the original documents and write them down correctly in the translation. Fourth, the client can notice a mistake in the translation before submitting it for consideration to the local authorities and return the translation to the translator asking them to correct the mistake. I once erroneously translated the Russian handwritten job abbreviation *пред-ль* as teacher, mistaking *предприниматель* (entrepreneur) for *преподаватель* (teacher). The client noticed this mistake in the translation, and I corrected it after having another look at the handwritten text. For over five hours, I had been deciphering the difficult handwritten doctor's records in the card of preventive vaccinations and misinterpreted the final words about the profession of one of the parents. Fortunately, this very parent noticed the mistake and informed the charitable organization that contacted me, and I recognized my mistake and introduced the necessary correction before the translation was seen by the local doctors who requested the document as children are required to have all the necessary vaccinations to be allowed to attend school in that English-speaking country. Finally, the local authorities, organizations or individuals who request translation versions of the refugees' documents might complain about the mistake or omission that the translator might have committed. This has not happened in my translation practice, but once there was a misunderstanding and I had to write a clarification that the information requested by the

authorities was clearly indicated in the translation. It seemed to be wilful misunderstanding on their part, as even the manager of the charitable organization with which I collaborate acknowledged that this information was clearly indicated in the translation. Once again it is important that local authorities trust the translation and read the documents to help refugees and not to exclude them from available resources and opportunities.

#### 4.7. Tools and Strategies.

While machine translation has been developing rapidly in the last few years and there are constant efforts to achieve consistent and reliable document-level machine translation (see, for example, Kang et al., 2021; Maruf et al., 2021; Nayak et al., 2022; Yu et al., 2020), this tool should be used cautiously because it can introduce subtle or even serious mistakes in the target text. Translating documents between English, Ukrainian, and Russian, I regularly use **machine translation**: if the text is clear to me and I have written it down first in the source language, I can use the DeepL Translator (<https://www.deepl.com/en/translator>), which is a neural machine translation service. Having used this tool to translate some of the text, I then carefully check it and look up the usage of relevant collocations, by **searching online specific collocations and terms to see how and whether they are used in the same context as in the original document**. To translate individual words and to see their different possible versions of translation, I sometimes turn to the Glosbe English-Ukrainian **corpus dictionary** (<https://glosbe.com/en/uk>). Studying the examples of previous translations, I can better understand which target language unit better works for the term or collocation in the source text. Previous translations are an invaluable source for successful and efficient work of a professional translator.

To see if a certain term is accepted in professional jargon, I can check **Wikipedia pages**. For example, the DeepL Translator translated the Ukrainian medical term *турецьке сідло* as *the Turkish saddle* in English, but when I checked Wikipedia by first visiting the Ukrainian page for *турецьке сідло* and then switched to the English Wikipedia article about the same concept, I found that in English it is known as *the sella turcica* (even though the article mentions that the name comes from Latin and stands for “Turkish saddle”). The use of such terms should also be checked in **online research articles, covering the relevant field of knowledge**.

Furthermore, I regularly use **online monolingual dictionaries**, such as Cambridge Dictionary (<https://dictionary.cambridge.org/>) and Merriam-Webster Dictionary (<https://www.merriam-webster.com/>), to consult the definitions of unfamiliar words.

Another tool that can assist the translator is a **translator guide** produced by the professional community or an organization that ensures the quality of translation. I have received such a guide from the charitable organization for which I provide translation services. In this article, I have described in detail the guidelines that I use in my work when examining the formatting of the documents.

A useful strategy when translating longer documents that the translator receives as image files is to **first write down the source text** in part or in full. Having the text version of the original document instead of an image facilitates the process of translation and enables the translator to use machine translation tools. This strategy also allows to first carefully engage with the source text and understand it better while writing it down before the translator proceeds to render it into the target language.

Finally, the translator who helps Ukrainian refugees regularly translates the same types of documents, such as birth certificates, marriage and divorce certificates, education certificates, passports, and driving licenses. To save time and preserve consistency the translator can use **document translation templates**, which are highly useful tools as they streamline the translation process and make it more efficient and consistent. These templates,

which can be designed by a professional translator using certain guiding principles and later improved if the principles change, contain common phrases, terms, and formatting specific to a particular document, aiding translators in producing accurate and cohesive translations. Translation templates reduce repetitive tasks and ensure uniformity, thus enhancing efficiency and helping maintain high-quality translations. **All the names and personal data used in the document translation templates are fictional** to protect the identity of the clients – I enter the relevant data according to each new translation request, replacing the fictional information used as a placeholder. One limitation to the use of translation templates is that the same type of document can be formatted differently at different times and by different local authorities in Ukraine. For example, this is the case with driving licenses. While there are certain distinctive characteristics, the formatting can vary depending on which local Ukrainian authority issues the license. Nevertheless, translation templates save time, streamline the work, and make it efficient.

### 5. Conclusions.

This article demonstrates that the important task of document translation for charitable organizations assisting Ukrainian refugees abroad goes beyond abstract linguistic endeavors. Document translation for the purpose of helping people access vital resources and services sheds light on the intricacies inherent in this process and has helped me as an educator see that the students, who are training to become professional translators, should learn skills through practical work, engaging concrete and complex tasks that present immediate challenges in need of resolution. Another important observation is that meticulous attention must be given to numbering and quantitative indicators in the source text to ensure accuracy of translation. Furthermore, online resources emerge as indispensable aids. Online dictionaries, machine translation services, and various other supportive tools facilitate efficiency and accuracy of translation. Another advice that I can give to translators dealing with such translation tasks is that caution should be exercised in case the original document contains information that might be flawed or imprecise, underscoring the translator's role as a facilitator of communication and interaction between people from different cultures. Beyond the formal aspects specific to the professional field of translation, the act of translation itself becomes an act of humanitarian assistance, aiding Ukrainian refugees abroad. The translator's effective work depends on a network of support, involving professional assistance from colleagues, feedback from clients, proofreading by legal experts, and careful examination of the final translation by local stakeholders. Collaboration with these parties is essential for successful translation-mediated communication. Ultimately, document translation for Ukrainian refugees and asylum seekers has a tangible impact on these individuals and contributes to the vital process of cross-cultural understanding. By studying professional translation practice, both university professors and students can improve their skills and gain valuable insights into this complex process which not only crosses linguistic boundaries but also embodies the power of collaboration for the purpose of fostering effective communication and support for those Ukrainians who are in need of language assistance abroad because of the Russian-Ukrainian war that has forced millions of people to leave their home.

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### Бібліографічний опис:

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### Анотація

Російсько-українська війна призвела до вимушеного переміщення мільйонів українців, багато з яких тепер звертаються до міжнародних та місцевих організацій в країнах, де вони перебувають, по допомогу у вирішенні щоденних проблем інтеграції. Одним із таких аспектів благодійної діяльності є надання перекладацьких послуг. У цій статті проаналізовано виклики та стратегії перекладу документів англійською, українською та російською мовами для благодійних організацій, які допомагають українським біженцям. Спираючись на професійний досвід співпраці з однією з таких благодійних організацій, автор розглядає питання комунікації, що забезпечує ефективне управління перекладацькими проєктами, окреслює процедуру сертифікації, яка засвідчує відповідальність перекладача за точність перекладу, а також аналізує типи документів, переклади яких найчастіше потрібні українським біженцям. Автор детально описує форматування перекладених документів, необхідне для того, щоб зробити їх доступними та зрозумілими. У статті розглянуто проблеми, з якими стикається перекладач під час роботи з документами українських біженців. Увагу зосереджено на таких проблемах, як нерозбірливий почерк і печатки, низька якість зображень оригіналів документів, друкарські помилки, абрєвіатури, скорочення і терміни, тонкощі форматування, часові обмеження і конфіденційність. Аналізуючи процес редагування готового перекладу для поліпшення його якості, автор стверджує, що переклад – це суспільно значима діяльність, яка вимагає співпраці перекладача з колегами-професіоналами, правниками, клієнтами та місцевими акторами і зацікавленими сторонами. Нарешті, у статті розглянуто інструменти та стратегії, які допомагають перекладачам працювати послідовно та ефективно: використання машинних перекладачів, корпусних онлайн-словників, шаблонів для перекладу документів, інструкцій та інших допоміжних засобів для надання надійних, своєчасних, точних і корисних перекладацьких послуг українським біженцям.

**Ключові слова:** переклад документів, переклад з української на англійську мову, письмовий переклад, перекладацькі інструменти, перекладацькі стратегії, шаблони для перекладу документів.

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## COMPARATIVE COMMUNICATIVE AND SEMANTIC DISCOURSE ANALYSIS OF AMERICAN PRESIDENTIAL INAUGURAL SPEECHES OF EARLY 21ST CENTURY

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### **Abstract**

*The article develops the traditional rhetorical “issues” contained in inaugural speeches of American presidents as macrotopical entities which are applied to construct communicative semantic structures of those speeches consisting of macrotopics and respective topics in the realm of discourse linguistics. We propose a*

*major rhetorical macrotopical cycle (MRMC) as a basic structure of those speeches. Most general repeated topics (macrotopics) in the Inaugural Speeches are Domestic Issues, International Issues, American Traditions and Other (Reference to the Audience, Reference to God, Application to Himself). Research of communicative semantic peculiarities of the use of such macrotopics in the Inaugural Speeches of the US Presidents of the beginning of the 21st century and their comparison constitute the subject matter of this article. Analyzing MRMCs within each of the Inaugural Speeches produces communicative semantic discourse description of them and gives the possibility to compare them. A tendency to use certain macrotopics in repeated orders in the speeches is found out. To a certain extent in all Inaugural Speeches of the US presidents we singled out the phenomenon which can be called major rhetorical macrotopical cycle which most frequently consists of the following macrotopics: Reference to the Audience – American Traditions – Domestic / International Issues and Reference to God. Communicative semantic structures of those speeches differ between themselves in the of such cycles, forms and subtypes of MRMCs. The peculiarities of the use of MRMCs by American presidents of the beginning of the 21st century are analysed and compared.*

**Keywords:** American political discourse, discourse analysis, communicative semantics, major rhetorical macrotopical cycle, topic.

### **1. Introduction.**

Political discourse of developed democracies has established rhetorical and, generally, linguistic traditions of studies, the number and the importance of which have been growing in this century (Dijk, 2006; Fetzer & Bull, 2008; Fetzer & Bull, 2012; Fetzer, 2013; Fetzer, 2018; Fetzer, 2020; Fetzer & Witczak-Plisiecka, 2021; Fetzer, 2022; Fetzer, 2023; Muhammad, 2021; Tasente, 2014; Krzyżanowski, Triandafyllidou, & Wodak R., 2018; Tyutyunnik, 2021; Wodak, 2020a; Wodak, 2020b; Zernetsky & Kucherova, 2021; Zernetskyi & Riabokon, 2019.). There are four what are traditionally called “issues” in rhetorical description of Inaugural speeches: Domestic Issues, International Issues, American Traditions and Other (Wolfarth, 1961).

From the point of view of discourse linguistics, we can review their communicative semantic nature and analyse those “issues”, as macrotopics (MT) within the Inaugural speeches of respective presidents, discourse topics (T) which belong to them, formulate their communicative semantic structures and compare them.

It is necessary to single out the variants of the mixtures of macrotopics and topics of the different macrotopics, if any, and types of contents pertinent to the macrotopics, especially the Other, as it can contain versatile senses pertinent to it (mostly of metacommunicative nature).

Our aim is to compare the structures of the constituent macrotopics of the discourses in question including providing the description of each macrotopic as consisting of respective constituent topics of each kind within the macrotopics. Constituent topics of the macrotopics are situated in contact between themselves in the speech flow. In different configurations they form complex topical structures of the four major macrotopics of the respective Inaugural speeches which can be compared and contrasted.

We suggest a model of communicative semantic discourse analysis describing linear arrangement of certain combinations of macrotopics of the Inaugural speeches. In all the Inaugural speeches in question we single out the phenomena which we call Major Rhetorical Macrotopic Cycles (MRMCs). Analysing MRMCs within each of the Inaugural speeches produces communicative semantic discourse description of them and gives the possibility to compare them.

The boundaries between MRMC’s are marked by change of the structure of reference. This change is realized through the use of MTs “Other” – namely, Reference to the Audience, Reference to God, Application to Himself.

## **2. Literature Review.**

The research is carried out within the framework of multi-facet discourse analysis. Among the trends of discourse analysis used are the critical discourse analysis, cognitive discourse analysis of T. van Dijk (Dijk, 1997; Dijk, 2006; Dijk 2019a; Dijk, 2019b; Dijk, 2023) and complex communicative-semiotic trend of discourse analysis represented by O. Kucherova (Zernetskyi and Kucherova, 2021), S. Kuranova (Куранова 2018), A. Riabokon (Zernetskyi and Riabokon, 2017; Zernetskyi and Riabokon, 2019), and P. Zernetskyi (2017; 2019; 2021). The latter trend presupposes the analysis of the use of the four aspects of language signs, namely, semantic, pragmatic, syntactic, sigmatic, or, choosing several of them as prominent in certain types of researches. This research of communicative semantic aspects of sense structure of discourses of Inaugural presidential speeches of the beginning of the 21st century presupposes the description of the macrotopical and topical communicative sense blocks of the speeches bases of the singling out four major types of macrotopics issues – American Traditions, Domestic Issues, Other and International Issues and the topics which constitute them.

## **3. Aim and Objectives.**

The aim of this article is the analysis of communicative semantic composition of the speeches in question and defining common and divergent features of their sense structures. We suggest a model of communicative semantic discourse analysis describing linear arrangement of certain combinations of macrotopics of the Inaugural speeches. In all the Inaugural speeches in question we single out the phenomena which we call Major Rhetorical Macrotopic Cycles (MRMCs). Analysing MRMCs within each of the Inaugural Speeches produces communicative semantic discourse description of them and gives the possibility to compare them.

## **4. Methodology.**

We propose to carry out a comparative research of sense peculiarities of Inaugural Speeches within the boundaries of contrasting macrotopical and topical structures of them. Such an analysis is aimed at describing individual communicative semantic frameworks of the speeches pertinent to different speakers (presidents of the US). It is closely connected with rhetoric “which may be considered to be the forerunner of what we would now call discourse studies” (Dijk, 1997, p. 12). So, the study of meaning of discourse is related to its persuasiveness. That is why it is so important to investigate the hierarchical structures of the sense of discourse especially at the level of its macro-semantic constituents.

Topics and macro-topics in Inaugural speeches of American presidents have generalized repeated meanings which are called “issues” in rhetoric. Our task is to analyse the sequences of topics and macro-topics as to the pertinent sequences (cycles) of them in different Inaugural Speeches. The change of MRMCs in Inaugural speeches is mostly marked by the use of the issue “Other” (Reference to God, Reference to the Audience, Application to Himself) which mark the final boundaries of MRMCs by indicating the change of structure of reference as a final element of certain MRMC. Such sequences can be special and specific for each of the Inaugural Speeches and form what we call MRMCs. At the final step of communicative semantic discourse analysis the structures of MRMCs of Inaugural speeches of different American presidents are to be compared.

## **5. Results.**

### ***Communicative semantic structures of the inaugural speeches.***

The following are the communicative semantic discourse structures of the Inaugural speeches of the beginning of the 21st century American presidents.

4.1. *Communicative semantic discourse structure of G. W. Bush 2001 Inaugural speech:*

first number signifies the number of the Inaugural speech analysed (e.g. 1 – 2001 President Bush speech), the second number – the type of macrotopic within the speech (e.g. 1 – American Traditions, 2 – Domestic Issues, 3 – Other (Reference to God, Reference to the Audience, Application to Himself), 4 – International Issues) and the third number – the number of the topic in the order within the macrotopic in certain Inaugural speech.

MT 1.3. Other (Reference to the Audience)

T 1.3.1. President Clinton <...> ended with grace.

MT 1.1. American Traditions

T 1.1.1. I am honored <...>

a long way we travel.

MT 1.2. Domestic Issues

T 1.2.1. While many of our citizens prosper <...>

nation of justice and opportunity.

MT 1.3. Other (Reference to God)

T 1.3.1. I know His is <...> who created us equal in His image.

MT 1.1. American Traditions

T 1.1.2. We are confident in principles <...>

passing from them on future generations.

MT 1.2. Domestic Issues.

T 1.2.2. Together, we will reclaim <...> working Americans.

MT 1.4. International Issues.

T 1.4.1. We will build our defenses <...>

our nation birth.

MT 1.1. American Traditions

T 1.1.3. America, at its best <...>

our nation promise.

MT 1.3. Other (Reference to God).

T 1.3.2. And whatever <...>

are failures of love.

MT 1.2. Domestic Issues.

T 1.2.4. Where there is suffering <...>

those who do.

MT 1.3. Other (Reference to God).

T 1.3.3. And I can pledge <...> to the other side.

MT 1.1. American Traditions.

T 1.1.4. America, at its best <...> a democracy are done by everyone.

MT 1.3. Other (Application to Himself).

T 1.3.4. I will live <...> a nation of character.

MT 1.1. American Traditions.

T 1.1.5. Americans are generous <...> and direct this storm.

MT 1.3. Other (Reference to God).

T 1.3.4. God bless <...> bless America.

The following are the structures of MRMCs of the G. W. Bush's 2001 Inaugural speech:

(1) MRMC 1.1 = (Other – References to the Audience) (T 1.3.1) + (American Traditions) (T 1.1.1) + (Domestic Issues) (T 1.2.1) + (Other – Reference to God) (T 1.3.2);

(2) MRMC 1.2 = (American Traditions) (T 1.1.2) + (Domestic Issues) (T 1.2.2) +



(International Issues) (T 1.4.1) + (American Traditions) (T 1.1.3) + (Other – References to God) (T 1.3.2);

(3) MRMC 1.3 = (Domestic Issues) (T 1.2.4) + (Other – Reference to God) (T 1.3.3);

(4) MRMC 1.4 = (American Traditions) (T 1.1.4) + (Other – Application to himself) (T 1.3.5);

(5) MRMC 1.5 = (American Traditions) (T 1.1.5) + (Other – Reference to God) (T 1.3.6).

The structures of G. W. Bush's 2001 Inaugural speech MRMCs are characterized by a strict regularity of the use of the finishing Ts "Other – Reference to God". The first MRMC 1.1 out of five can be called "framed", because it starts with Reference to Audience (T 1.3.1) and ends with Reference to God (T 1.3.2).

*4.2. Communicative semantic discourse structure of G. W. Bush 2005 Inaugural speech:*

MT 2.3. Other (Reference to the Audience).

T 2.3.1. Vice President Cheney <...> fellow citizens.

MT 2.1. American Traditions.

T 2.1.1. On this day <...> you have witnessed.

MT 2.2. Domestic Issues.

T 2.2.1. At this second gathering <...> a day of fire.

MT 2.4. International Issues.

T 2.4.1. We have seen <...> in all the world.

MT 2.1. Domestic Issues.

T 2.2.2. America vital <...> of our time.

MT 2.4. International Issues.

T 2.4.2. So it is a policy <...> in freedom cause.

MT 2.3. Other (Application to Himself).

T 2.3.2. My most solemn duty <...> found it firm.

MT 2.4. International Issues.

T 2.4.3. We will persistently <...> free country.

MT 2.1. American Traditions.

T 2.1.2. The rulers <...> cannot long retain it.

MT 2.4. International Issues.

T 2.4.4. The Leaders of governments <...> our enemies defeat.

MT 2.3. Other (Application to Himself).

T 2.3.3. Today, I also speak <...> promise of liberty.

MT 2.1. American Traditions.

T 2.1.3. In America's ideal <...> in the history of freedom.

MT 2.3. Other (Reference to God).

T2.3.4. May God <...> the United States of America.

The structures of MRMCs of the G. W. Bush's 2005 Inaugural speech are as follows:

(6) MRMC 2.1 = (Other – Reference to the Audience) (T 2.3.1) + (American Traditions) (T 2.1.1) + (Domestic Issues) (T 2.2.1) + (International Issues) (T 2.4.1) + (Domestic Issues) (T 2.2.2) + (International Issues) (T 2.4.2) + (Other -Application to Himself) (T 2.3.3);

(6') MRMC 2.1' = (International Issues) (T 2.4.3) + (American Traditions) (T 2.1.2) + (International Issues) (T 2.4.4) + (Application to Himself) (T 2.3.3);

(7) MRMC 2.2 = (American Traditions) (T 2.1.3) + (Other – Reference to God) (T 2.3.4).

The structure of Bush's 2005 Inaugural speech is quite specific. A big initial MRMC

2.1 consists of seven Ts. The second and the last MRMC 2.2 includes only two Ts – (American Traditions) (T 2.1.3) and (Other – Reference to God) (T 2.3.4). In other words, Bush's speech contains a detailed message in MRMC 2.1 and a motivating part of the speech (MRMC 2.2) stressing the idea of American Traditions and the faith in God.

*4.3. Communicative semantic discourse structure of B. Obama 2009 Inaugural speech:*

- MT 3.3. Other (Application to Himself).
- T 3.3.1. My fellow citizens <...> by our ancestors.
- MT 3.3. Other (Application to President G.W. Bush).
- T 3.3.2. I thank <...> this transition.
- MT 3.1. American Traditions.
- T 3.1.1. Forty-four Americans <...> our founding documents.
- MT 3.2. Domestic Issues.
- T 3.2.1. So it has been <...> our politics.
- MT 3.3. Other (Reference to God).
- T 3.3.3. We remain <...> full measure of happiness.
- MT 3.1. American Traditions.
- T 3.1.2. In reaffirming <...> wealth or faction.
- MT 3.2. Domestic Issues.
- T 3.2.2. This is the journey <...> this will do.
- MT 3.1. American Traditions.
- T 3.1.3. Now, there are <...> necessity to courage.
- MT 3.2. Domestic Issues.
- T 3.2.3. What the cynics <...> our common good.
- MT 3.1. American Traditions.
- T 3.1.4. As for our common <...> for expedience's sake.
- MT 3.4. International Issues.
- T 3.4.1. And so to all <...> ready to lead once.

The following is the MRMCs structure of B. Obama's 2009 Inaugural Speech:

(8) MRMC 3.1 = (Other – Application to Audience) (T 3.3.1) + (Other – Reference G. W. Bush) (T 3.3.2) + (American Traditions) (T 3.1.1) + (Domestic Issues) (T 3.2.1) + (Reference to God) (T 3.3.3);

(9) MRMC 3.2 = (American Traditions) (T 3.1.2) + (Domestic Issues) (T 3.2.2) + (American Traditions) (T 3.1.3) + (Domestic Issues) (T 3.2.3) + (American Traditions) (T 3.1.4) + (International Issues) (T 3.4.1).

Obama's 2009 Inaugural speech is abundant in references to American Traditions and comparatively scarce in references to God.

*4.4. Communicative semantic discourse structure of B. Obama 2013 Inaugural speech:*

- MT 4.3. Other (Reference to the Audience).
- T 4.3.1. Vice President Biden <...> fellow citizens.
- MT 4.1. American Traditions.
- T 4.1.1. Each time <...> and one people.
- MT 4.2. Domestic Issues.
- T 4.2.1. This generation <...> peaks.
- MT 4.3. Other (Reference to God).
- T 4.3.2. This is how <...> once declared.
- MT 4.4. International Issues.
- T 4.4.1. We, the people <...> dignity and justice.

MT 4.1. American Traditions.

T 4.1.2. We, the people <...> from the harm.

MT 4.2. Domestic Issues.

T 4.2.2. That is our generation's task <...> in our time.

MT 4.1. American Traditions.

T 4.1.3. For now decisions <...> Philadelphia hall.

MT 4.3. Other (Application to Himself).

T 4.3.3. My fellow Americans <...> hearts with pride.

MT 4.2. Domestic Issues.

T 4.2.3. They are the words <...> light of freedom.

MT 4.3. Other (Reference to God).

T 4.3.4. God bless you <...> these United States of America.

Here we present the MRMCs of B. Obama 2013 Inaugural speech:

(10) MRMC 4.1 = (Other – Reference to the Audience) (T 4.3.1) + (American Traditions) (T 4.1.1) + (Domestic Issues) (T 4.2.1) + (Other – Reference to God) (T 4.3.2);

(11) MRMC 4.2 = (International Issues) (T 4.4.1) + (Domestic Issues) (T 4.2.2) + (American Traditions) (T 4.1.3) + (Other – Application to Himself) (T 4.3.3);

(12) MRMC 4.3 = (Other – Reference to God) (T 4.3.4).

One of the semantic peculiarities of his speech is active use of the MT “American Traditions”.

*4.5. Communicative semantic discourse structure of D. Trump's 2017 Inaugural speech:*

MT 5.3. Other (Reference to the Audience).

T 5.3.1. Chief Justice <...> . Thank you.

MT 5.2. Domestic Issues.

T 5.2.1. Today's ceremony <...> right now.

MT 5.4. International Issues.

T. 5.4.1. We are one <...> across the world.

MT 5.2. Domestic Issues.

T 5.2.2. But that is <...> America first.

MT 5.3. Other (Application to Himself).

T 5.3.2. Every decision <...> never before.

MT 5.3. Other (Reference to the Audience).

T 5.3.3. We will bring <...> red blood of patriots.

MT 5.1. American Traditions.

T 5.1.1. We enjoy <...> American flag.

MT 5.3. Other (Reference to God).

T 5.3.4. And whether a child <...> almighty creator.

MT 5.2. Domestic Issues.

T 5.2.3. So to all Americans <...>. Thank you.

MT 5.3. Other (Reference to God).

T 5.3.4. God bless <...> bless America.

The structures of MRMCs of D. Trump's 2017 Inaugural speech are as follows:

(13) MRMC 5.1 = (Other – Reference to the Audience) (T 5.3.1) + (Domestic Issues) (T 5.2.1) + (International Issues) (T 5.4.1) + (Domestic Issues) (T 5.2.2) + (Other – Application to Himself) (T 5.3.2) + (Other – Reference to the Audience) (T 5.3.3);

(14) MRMC 5.2 = (American Traditions) (T 5.1.1) + (Other – Reference to God) (T 5.3.4);

(15) MRMC 5.3 = (Domestic Issues) (T 5.2.3) + (Other – Reference to God) (T 5.3.4).

Interestingly enough, D. Trump uses Reference to the Audience at the beginning of his speech and Reference to God in the final part of it.

4.6. *Communicative semantic discourse structure of J. Biden's 2021 Inaugural speech:*

MT 6.3. Other (Reference to the Audience).

T 6.3.1. Chief Justice <...> my fellow Americans.

MT 6.1. Domestic Issues.

T 6.2.1. This is America's day <...> and resolve.

MT 6.1. American Traditions.

T 6.1.1. Through a crucible <...> democracy has prevailed.

MT 6.3. Other (Reference to God).

T 6.3.2. So now, on this hallowed ground <...> for more than two centuries.

MT 6.2. Domestic Issues.

T 6.2.1. We look ahead <...> we must be.

MT 6.3. Other (Reference to the Audience).

T 6.3.3. I thank my <...> bottom of my heart.

MT 6.1. American Traditions.

T 6.1.2. You know <...> the strength of our nation.

MT 6.3. Other (Reference to the Audience).

T 6.4.4. As does President Center <...> lifetime of service.

MT 6.3. Other (Application to himself).

T 6.3.4. I have just taken <...> patriots task.

MT 6.1. American Traditions.

T 6.1.3. An oath <...> George Washington.

MT 6.3. Other (Reference to the Audience).

T 6.3.5. But the American story <...> all of us.

MT 6.1. American Traditions.

T 6.1.4. On "We the People" <...> perfect Union.

MT 6.2. Domestic Issues.

T 6.2.2. This is great <...> good people.

MT 6.1. American Traditions.

T 6.1.5. Over the centuries <...> far to go.

MT 6.3. Other (Reference to the Audience).

T 6.3.6. We will press forward <...> much to gain.

MT 6.1. American Traditions.

T 6.1.6. Few periods <...> we're now.

MT 6.2. Domestic Issues.

T 6.2.3. A once-in-a-century virus <...>business closed.

MT 6.1. American Traditions.

T 6.1.7. A cry for racial justice <...> moves us.

MT 6.2. Domestic Issues.

T 6.2.4. The dream <...> no longer.

MT 6.4. International Issues.

T 6.4.1. A cry for survival <...> any more clear.

MT 6.3. Other (Reference to the Audience).

T 6.3.7. And now <...> we will defeat.

MT 6.1. American Traditions.

- T 6.1.8. To overcome <...> «whole soul is in it».  
 MT 6.3. Other (Application to Himself).  
 T 6.3.8. My whole soul <...> hopelessness.  
 MT 6.3. Other (Reference to the Audience).  
 T 6.3.9. With unity we can <...> for good in the world.  
 MT 6.3. Other (Application to Himself).  
 T 6.3.10. I know speaking <...> they are not new.  
 MT 6.1. American Traditions.  
 T 6.1.9. Our history <...> have always prevailed.  
 MT 6.3. Other (Reference to the Audience).  
 T 6.3.11. In each of these moments <...> do so now.  
 MTs 6.1., 6.3., 6.2. American Traditions, Other (Reference to God), Domestic Issues – combined.  
 Ts 6.1.10., History, faith and reason show the way, the way of unity.  
 6.3.12.,  
 6.2.5.  
 MT 6.3. Other (Reference to the Audience).  
 T 6.3.13. We can see <...> the United States of America.  
 MT 6.3. Other (Reference to the Audience, Application to Himself, Reference to the Audience).  
 Ts 6.3.14., If we do that, I guarantee you, we will not fail.  
 6.3.15.,  
 6.3.16.  
 combined.  
 MT 6.1. American Traditions.  
 T 6.1.11. We have never <...> acted together.  
 MT 6.3. Other (Reference to the Audience).  
 T 6.13.17. And so today <...> just look around.  
 MT 6.1. American Traditions.  
 T 6.1.12. Here we stand <...> for the right to vote.  
 MT 6.2. Domestic Issues.  
 T 6.2.5. Today, we mark <...> Kamala Harris.  
 MT 6.3. Other (Application to Himself).  
 T 6.3.18. Don't tell <...> can't change.  
 MT 6.2. Domestic Issues.  
 T 6.2.6. And here we stand <...>not other.  
 MT 6.3. Other (Reference to Supporters).  
 T 6.3.19. To all those who <...> placed in us.  
 MT 6.3. Other (Reference to Opponents).  
 T 6.3.20. To all those who <...> so be it.  
 MT 6.1. American Traditions.  
 T 6.1.13. That's democracy <...> greatest strength.  
 MT 6.3. Other (Application to Himself).  
 T 6.3.21. Yet hear me <...> those who did.  
 MT 6.3. Other (Reference to God).  
 T 6.3.22. Many centuries <...> of their love.  
 MT 6.3. Other (Application to Himself).  
 T 6.3.23. What are the common <...> the truth.  
 MT 6.2. Domestic Issues.

- T 6.2.7. Recent weeks <...> for profit.  
MT 6.1. American Traditions.  
T 6.1.14. And each of us <...> to defeat the lies.  
MT 6.3. Other (Application to Himself).  
T 6.3.24. I understand <...> sources you do.  
MT 6.3. Other (Reference to the Audience).  
T 6.3.25. We must end <...> pandemic as one nation.  
MT 6.3. Other (Application to Himself, Reference to the Audience, Reference to God – combined).  
T 6.3.26., I promised you this as the Bible says <...> get through this together.  
6.3.27.,  
6.3.28.  
MT 6.4. International Issues.  
T 6.4.1. The world is watching <...> so much in this nation.  
MT 6.3. Other (Application to Himself, Reference to God, Domestic Issues – combined).  
Ts 6.3.29. And, in my first act <...> and should be.  
6.3.30.  
6.2.8.  
MTs 6.3. Other (Reference to God).  
T 6.3.31. Let us say a silent prayer <...>. Amen.  
Mts 6.2., Domestic Issues,  
6.4. International Issues – combined.  
Ts 6.2.9., This is the time <...> role in the world.  
6.4.2.  
MT 6.3. Other (Reference to the Audience).  
T 6.3.32. Any of these <...> for our children.  
MT 6.3. Other (Application to Himself, Reference to the Audience – combined).  
T 6.3.33. I believe <...> we will.  
MT 6.1., 6.3. American Traditions, Other (Reference to the Audience) – combined.  
Ts 6.15, And when <...> the American story.  
6.3.34.  
MT 6.1., 6.3. American Traditions, Other (Application to Himself).  
T 6.1.16., It's a story <...> my best to you.  
6.3.35.  
MT 6.3., Other (Reference to the Audience, Reference to God), American  
6.1. Traditions – combined.  
T 6.3.35., Let us <...> story of our nation.  
6.3.36.,  
6.1.17  
MT 6.3. Other (Reference to the Audience).  
T 6.3.37. If we do <...> my fellow Americans.  
MT 6.3. Other (Application to Himself).  
T 6.3.38. I close <...> a sacred oath.  
MT 6.3. Other (Reference to God, Reference to the Audience, Application to Himself)  
T 6.3.39., Before God <...> not darkness.  
6.3.40.,  
6.3.41.

MT 6.1., 6.3. American Traditions, Other (Reference to the Audience) – combined.

T 6.1.18., An American story <...> of our time.

6.3.42.

MT 6.3., 6.1. Other (Reference to God, Reference to the Audience), American Traditions – combined.

T 6.3.43., Sustained by faith <...>. Thank you, America.

6.3.44.,

6.1.45.

The following are the MRMC structures of J. Biden's 2021 Inaugural speech:

(16) MRMC 6.1 = (Other – Reference to the Audience) (T 6.3.1) + (Domestic Issues) (T 6.2.1) + (American Traditions) (T 6.1.1) + (Other – Reference to God) (T 6.3.2);

(17) MRMC 6.2 = (Domestic Issues) (T 6.2.1) + (Other – Reference to the Audience) (T 6.3.3);

(18) MRMC 6.3 = (American Traditions) (T 6.1.2) + (Other – Reference to the Audience) (T 6.3.4);

(19) MRMC 6.4 = (Other – Application to Himself) (T 6.3.4') + (American Traditions) (T 6.1.3) + (Other – Reference to the Audience) (T 6.3.5);

(20) MRMC 6.5 = (American Traditions) (T 6.1.4) + (Domestic Issues) (T 6.2.2) + (American Traditions) (T 6.1.5) + (Reference to the Audience) (T 6.3.6);

(21) MRMC 6.6 = (American Traditions) (T 6.1.6) + (Domestic Issues) (T 6.2.3) + (American Traditions) (T 6.1.7) + (Domestic Issues) (T 6.2.4) + (International Issues) (T 6.4.1) + (Other – Reference to the Audience) (T 6.3.7);

(22) MRMC 6.7 = (American Traditions) (T 6.1.8) + (Other – Application to Himself) (T 6.3.8);

(23) MRMC 6.8 = (Other – Reference to the Audience) (T 6.3.9) + (Other – Application to Himself) (T 6.3.10) + (American Traditions) (T 6.1.9) + (Other – Reference to the Audience) (T 6.3.11);

(24) MRMC 6.9 = [(American Traditions) (T 6.1.10) (Other – Reference to God) (T 6.3.12) (Domestic Issues) (T 6.2.5) – combined] + (Other – Reference to the Audience) (T 6.3.13);

(25) MRMC 6.10 = (Other – Reference to the Audience, Application to Himself, Reference to the Audience – combined) (T 6.3.14, T 6.3.15, T 6.3.16) + (American Traditions) (T 6.1.11) + (Other – Reference to the Audience) (T 6.3.17);

(26) MRMC 6.11 = (American Traditions) (T 6.1.12) + (Domestic Issues) (T 6.2.5) + (Other – Application to Himself) (T 6.3.18);

(27) MRMC 6.12 = (Domestic Issues) (T 6.2.6) + (Other – Reference to Supporters) (T 6.3.19) + (Other – Reference to Opponents) (T 6.3.19);

(28) MRMC 6.13 = (American Traditions) (T 6.1.13) + (Other – Reference to the Audience) (T 6.3.21) + (Other – Reference to God) (T 6.3.22) + (Other – Application to Himself) (T 6.3.23);

(29) MRMC 6.14 = (Domestic Issues) (T 6.2.7) + (American Traditions) (T 6.1.14) + (Other – Application to Himself) (T 6.3.24) + (Other – Reference to the Audience) (T 6.3.25) + (Other – Application to Himself, Reference to the Audience, Reference to God – combined) (T 6.3.26, T 6.3.27, T 6.3.28);

(30) MRMC 6.15 = (International Issues) (T 6.4.1) + (Other – Application to Himself, Reference to God, Domestic Issues – combined) (T 6.3.29, T 6.3.30, T 6.2.8) + (Other – Reference to God) (T 6.3.31);

(31) MRMC 6.16 = (Domestic Issues, International Issues – combined) (T 6.3.9, T 6.4.2) + (Other – Reference to the Audience) (T 6.3.32) + (Other – Application to Himself,

Reference to the Audience – combined) (T 6.3.33);

(32) MRMC 6.17 = (American Traditions, Other – Reference to the Audience – combined) (T 6.1.15, T 6.3.34) + (American Traditions, Other – Application to Himself) (T 6.1.16, T 6.3.35);

(33) MRMC 6.18 = (Other – Reference to the Audience, Reference to God, American Traditions – combined) (T 6.3.35, T 6.3.36, T 6.1.17) + (Other – Reference to the Audience) (T 6.3.37) + (Other – Application to Himself) (T 6.3.38);

(34) MRMC 6.19 = (Other – Reference to God, Reference to the Audience, Application to Himself) (T 6.3.39, T 6.3.40, T 6.3.41) + (American Traditions, Other – Reference to the Audience – combined) (T 6.1.18, T 6.3.42) + (Other – Reference to God, Reference to the Audience, American Traditions – combined) (T 6.3.43, T 6.3.44, T 6.1.19).

Extremely big number of MRMCs (18) in Biden's Inaugural speech testifies to the fact of changing reference structure almost in the end of each proposition. This obviously is a powerful way of keeping attention of the audience throughout the whole speech.

## **6. Discussion.**

Decomposition of discourse on the levels that are higher than propositions can be in the focus of attention of various branches and trends of linguistics – rhetoric, text linguistics, theory of argumentation, pragmatics, theory of language personality, communicative linguistics, genre and register theory.

MRMC consists of more than one topic/macrotopic linearly arranged. It is a repeated sense structure at the level higher than the proposition. It describes the composition level of discourse, in our case, of Inaugural speeches of American presidents. MRMC always ends with the topic expressing the reference of the MRMC. This final MRMC component reflects one or more of the three possible structures of reference to major key elements of the model of the universe: “I to I”, “I to the Audience”, “I to God”. Types of sequences of different topics/macrotopics in MRMCs, their length and compositions can be scrutinized in detail in these trends of linguistics. This can help to study individual features of language personality's discourse at macrolevel of sense, i.e. at the level of communicative semantic composition of discourse.

The length and composition of MRMC are crucial parameters of sense organization of discourse of American president's Inaugural addresses. G. W. Bush used 5 MRMCs in his 2001 Inaugural address, each of them containing from 2 to 3 Ts. Usually, every T consists of several propositions. He mentioned T American Traditions 5 times, using this type of T twice in MRMC 1.2, Domestic Issues was dwelt upon 3 times, T International Issues was referred to once. T Other was reflected 7 times, mostly in the form of T Reference to God (4 times), T Reference to the Audience (1 time), T Application to Himself (1 time).

These facts testify to a strong spiritual bias of G. W. Bush and his traditional American values.

G. W. Bush 2005 Inaugural address contains 3 MRMCs and is more oriented towards international politics than that of 2001. End of the three MRMCs includes T American Traditions pinpointing the importance for G. W. Bush of traditional American values. He also used the T Domestic Issues twice responding to the needs for strong domestic policy. T Other is represented by two Ts Application to Himself showing grown authority of the President.

B. Obama's 2009 and 2013 Inaugural addresses are concentrated around the T American Traditions. Lengthy explanations of Ts are given by the speaker.

D. Trump in his 2017 Inaugural speech mixes two types of T Other – Application to Himself and Reference to the Audience.



Biden's Inaugural speech MRMCs are uniquely short: from 2 to 4 propositions each. It is also peculiar in mixing several types of T Other – Application to Himself and Reference to the Audience, and even Reference to God, Reference to the Audience and American Traditions – combined.

Though all the Inaugural speeches belong to one genre with developed semantic structures, there are obvious differences in MRMCs length and composition in them. On the basis of MRMCs analysis it is possible to state that generally speaking Inaugural address of G. W. Bush are religiously-oriented, B. Obama tends to bring American Traditions to the fore, the contents of the Trump's speech is relatively self-centered and J. Biden's address is semantically dynamic.

### **7. Conclusions.**

There is a clear tendency of regular placing different types of MTs in repeated orders which we would like to specify. To a certain extent in all the Inaugural speeches of all respective presidents one can see MRMCs from Reference to the Audience – to American Traditions – to Domestic Issues / International Issues – to Reference to God. Such cycles, to this or that extent, are pertinent to all the Inaugural speeches in question. The communicative semantic structures of those speeches differ in the number of such cycles, their modified forms and sub-types, but they still retain the essential characteristic features of the general rhetorical macrotopical cycle mentioned.

The most classical and obvious in this respect is 2001 G. W. Bush Inaugural speech. It contains 5 cycles which almost strictly represent the MRMC.

The second (2005) G. W. Bush Inaugural speech contains two MRMCs, but they are larger in size, each MT in them containing more propositions.

2009 B. Obama Inaugural speech is characterized by 2 classical MRMCs (2 all in all).

2013 B. Obama second Inaugural speech, like in the case of the second Bush's Inaugural speech, contains bigger number of propositions within MRMCs and tend to be larger in size.

2017 D. Trump's Inaugural speech is prominent by the largest in size MRMCs, always specially and emphatically directed to the audience.

J. Biden's 2021 Inaugural speech in the leader in the intensity of using short MRMCs with changes of types of MTs almost with every new sentence.

So, the general tendency of communicative semantic structure formation showed two opposite directions: the use of very large but not numerous MRMC with repeated References to the Audience (D. Trump) and the use of abundance of very short MRMC with mixture of References to the Audience, Applications to Himself and References to God (J. Biden). Almost every MT Domestic Issues is preceded by MT American Traditions which signifies the importance of continuity of American history. Such a block of MT American Traditions and MT Domestic Issues is often concluded with MT Other (Reference to God).

Generally speaking Inaugural speeches of the beginning of the 21st century contain from 2 MRMCs (B. Obama 2009), 3 MRMCs (G. W. Bush 2005, B. Obama 2013, D. Trump 2017) to 5 MRMCs (G. W. Bush 2001). Totally specific is the Inaugural speech of J. Biden, which consists of 18 MRMCs. He often uses what may be called "broken" cycles, having 2 or 3 out of the usual 4 MTs, omitting some of them within MRMC (e.g. American Traditions 6.1.6. – Domestic Issues 6.2.3.), "inverted" MRMC (Other 6.2.23. – Domestic Issues 6.1.7. – American Traditions 6.1.14.), "mixtures" of referential Ts within the Other MTs (6.3.24., 6.3.25., 6.3.26., 6.3.27., 6.3.28.).

Comparative discourse analysis based on solid ground of well-established concepts can bring out new data of sense peculiarities of Inaugural speeches, in our case, those of the beginning of the 21st century.

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### **Бібліографічний опис:**

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### **Анотація**

Повторюваними найзагальнішими темами (макротопіками) у зазначених інавгураційних промовах є Внутрішні Питання, Міжнародні Питання, Американські Традиції та Інше (Звернення до Аудиторії, Звернення до Бога, Застосування до Себе). Вивчення комунікативно-семантичних особливостей вживання таких макротопіків у промовах президентів США початку ХХІ століття та їхнє порівняння становить проблематику цієї статті.

Запропоновано модель комунікативно-семантичного дискурс-аналізу, яка описує лінійну організацію відповідних комбінацій макротопіків інавгураційних промов. У всіх інавгураційних промовах можна виокремити таке явище, як головний риторичний макротопіковий цикл (ГРМЦ). Аналіз ГРМЦ, які наявні в кожній інавгураційній промові, дозволяє створити їхній комунікативно-семантичний дискурс-опис та визначити їхні спільні та відмінні риси.

Метою цієї статті є аналіз комунікативно-семантичної побудови вказаних промов і визначення спільних та відмінних рис їхніх смислових структур.

Дослідження було проведено методом дискурс-аналізу, що здійснюється у комунікативно-семантичній площині з фокусом на топікальній структурі смислу дискурсу.

Виявлена тенденція до вживання певних макротопіків у повторюваних порядках. До певної міри, у всіх інавгураційних промовах відповідних президентів ми виокремили те, що можна назвати головним риторичним макротопіковим циклом (ГРМЦ), що складається від Звернення до Аудиторії – до Американських Традицій – до Внутрішніх / Міжнародних Питань – і до Звернення до Бога. Комунікативно-семантичні структури цих промов відрізняються між собою кількістю таких циклів, формою та підтипами ГРМЦ.

Порівняльний комунікативно-семантичний дискурс-аналіз, що ґрунтується на добре випрацьованих відповідних концептах риторики, надає змогу отримувати нові дані аналізу смислових особливостей промов, у нашому випадку інавгураційних промов президентів США початку ХХІ століття.

**Ключові слова:** американський політичний дискурс, дискурс-аналіз, комунікативна семантика, головний риторичний макротопіковий цикл, топік.

**CONTENTS***Viktoriia I. Davydenko*

CONTEMPORARY UKRAINIAN COMPUTATIONAL DICTIONARIES:  
HISTORY, ACHIEVEMENTS, AND CHALLENGES .....5

*Arslan R. Fazylov*

FORMATION AND DEVELOPMENT OF THE ALPHABET  
OF THE CRIMEAN TATAR LANGUAGE: A HISTORICAL OUTLINE ..... 13

*Svitlana O. Hudz*

ASSIMILATION OF COMMERCIAL AND ECONOMIC  
BORROWINGS OF TURKIC ORIGIN IN ENGLISH:  
ETYMOLOGY AND SEMANTIC EVOLUTION .....21

*Alla A. Ishchuk, Olena M. Ishchuk*

CROSS-CULTURAL BUSINESS COMMUNICATION:  
A LINGUISTIC AND COGNITIVE PERSPECTIVE .....32

*Eglė Konstantinavičienė, Ramunė Kasperė, Svitlana Matvieieva*

POST-EDITING DECISIONS IN MACHINE TRANSLATION  
OF LEGAL CONTRACTS.....42

*Viktoriia V. Lemeshchenko-Lagoda*

MICROSTRUCTURAL REPRESENTATION OF NATIONALLY MARKED  
UNITS IN SCOTS-ENGLISH AND GAELIC-ENGLISH DICTIONARIES.....55

*Pavlo Yu. Shopin*

DOCUMENT TRANSLATION FOR CHARITABLE ORGANIZATIONS  
ASSISTING UKRAINIAN REFUGEES: CHALLENGES AND STRATEGIES .....65

*Olga V. Zernetska, Pavlo V. Zernetskyi*

COMPARATIVE COMMUNICATIVE AND SEMANTIC  
DISCOURSE ANALYSIS OF AMERICAN PRESIDENTIAL  
INAUGURAL SPEECHES OF EARLY 21st CENTURY .....77

## ЗМІСТ

*Давиденко В. І.*

Сучасні українські комп'ютерні словники: історія, досягнення, проблеми ..... 5

*Фазілов А. Р.*

Формування та розвиток абетки кримськотатарської мови: історичний екскурс..... 13

*Гудзь С. О.*

Асиміляція комерційно-економічних запозичень тюркського походження  
в англійській мові: етимологічне походження та семантична еволюція ..... 21

*Іщук А. А., Іщук О. М.*

Міжкультурна ділова комунікація у лінгво-когнітивному вимірі.....32

*Константиновичене Е., Касперс Р., Матвєєва С.*

Постредагування машинного перекладу юридичних договорів.....42

*Лемещенко-Лагода В. В.*

Мікроструктурна репрезентація національно маркованих одиниць  
у шотландсько (скотс)-англійських та гельсько-англійських словниках..... 55

*Шопін П. Ю.*

Переклад документів для благодійних організацій,  
які допомагають українським біженцям: виклики і стратегії ..... 65

*Зернецька О. А., Зернецький П. В.*

Порівняльний комунікативно-семантичний дискурс-аналіз  
американських президентських інавгураційних промов початку ХХІ століття ..... 77

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