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COMPARATIVE CHARACTERISTICS OF THE INTEGRATION OF LATIN AND GREEK BORROWINGS INTO THE GRAMMATICAL SYSTEM OF THE ENGLISH AND UKRAINIAN LANGUAGES

ПОРІВНЯЛЬНА ХАРАКЕРИСТИКА АДАПТАЦІЇ ЛАТИНСЬКХ І ГРЕЦЬКИХ ЗАПОЗИЧЕНЬ ДО ГРАМАТИЧНОЇ СИСТЕМИ АНГЛІЙСЬКОЇ І УКРАЇНСЬКОЇ МОВ

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Анотація. У цьому дослідженні представлено порівняльний аналіз адаптації латинських та грецьких запозичень в англійській та українській мовах. Всупереч тому, що обидві мови мають спільне історичне коріння запозичень, їхні інтеграційні процеси відрізняються через граматичні структури. Англійська мова часто зберігає оригінальну форму запозичень з мінімальною граматичною адаптацією, особливо в професійному контексті. Українська мова, навпаки, адаптує запозичення глибше, застосовуючи зміни у відмінку, роді та числі. Ці відмінності відображають ширшу мовну та культурну динаміку. Аналіз показує, як обидві мови розвиваються, інтегруючи класичні елементи, збагачуючи свій словниковий запас, зберігаючи при цьому граматичну цілісність.

Ключові слова: адаптація, латинські та грецькі запозичення, українська і англійська мови

Introduction

The vocabulary of any language is a living, dynamic phenomenon that is constantly changing under the influence of social, cultural, historical, scientific and technological factors. One of the main sources of vocabulary enrichment is borrowing from other languages, in particular from the classical ones - Latin and Greek. These languages had a powerful influence on the formation of the lexical fund of many European languages, including English and Ukrainian. The study of Latin and Greek borrowings allows us to trace historical and cultural ties between nations, as well as to

understand the deeper processes taking place in the language space.

The history of mankind is inextricably linked to migrations, trade, wars, and cultural exchanges, so borrowings have become a natural phenomenon in the development of any language. In linguistics, the concept of borrowing is interpreted as the process of replenishing the lexical structure of one language with elements of another as a result of interlingual interaction. Borrowings arise when the available linguistic resources are not sufficient to name new concepts, objects, phenomena, or events that appear as a result of the development of science, technology, culture, or political contacts.

Classical languages, particularly Latin and Greek, have developed a rich vocabulary that has been actively used for centuries in education, philosophy, medicine, law, and subsiquently in other fields of knowledge. That is why borrowings from these languages have a specific nature: most of them belong to literary or scientific vocabulary, which is not always used in everyday speech. In the process of adapting to the recipient languages, these words undergo phonetic, morphological, and semantic changes, which facilitate their integration into the language system.

Borrowings are viewed not only as the result of external influences, but also as evidence of the language's ability to renew and develop. They provide the language with new units that can coexist with the native vocabulary, displace it, or form synonymous series. The theoretical study of borrowings allows us to trace not only linguistic changes but also socio-cultural processes, because words carry not only meaning but also part of the history and culture of the donor language. Thus, Latin and Greek borrowings in modern European languages, in particular English and Ukrainian, act as a kind of bridge between epochs, demonstrating the heredity of knowledge, traditions, and language models.

The historical penetration of Latin and Greek words into the lexical systems of English and Ukrainian demonstrates long-standing cultural exchange and language contact, as well as the development of written and oral traditions. This gradual accumulation has contributed to the expansion of our linguistic toolkit, allowing us to communicate in everyday and specialized contexts. In the context of modern

linguistics, studying these processes allows us to trace language contact between classical and modern languages and understand the interpenetration of cultures through language structures.

The research topic is relevant due to the growing interest in the origin and evolution of lexical units, particularly in the context of globalization, active interlingual exchange, and expanding intercultural communication. Borrowings from Latin and Greek comprise a significant portion of the terminology in science, medicine, and technology and are also commonly used in everyday speech. This makes the study of these borrowings important not only theoretically, but also practically.

The article **aims** to make a comparative analysis of Latin and Greek borrowings in English and Ukrainian, taking into account their origin and grammatical characteristics. In order to reveal the topic of the study, the following tasks need to be fulfilled: to analyze the grammatical features of these borrowings; to conduct a comparative analysis of Latin and Greek borrowings in comparative languages; and to characterize the role of borrowings in the modern language environment.

The **research methods** used in the article include descriptive, comparative and etymological analysis.

Research results The historical paths of Latin and Greek borrowings into the English and Ukrainian languages cover several stages and are closely related to the cultural, religious, political, and scientific processes that took place in different periods of European civilization. In the case of English, Latin borrowings began to arrive as early as the Roman Empire, when part of the British Isles was under Roman rule. However, a larger-scale Latinization of English occurred later, under the influence of the Christianization of Britain, which began in the seventh century [8].

Along with Christianity, Latin words related to religion, liturgy, education, and philosophy entered the English language. The following Latin words entered English primarily through the Church and Christian doctrine: *altar* from *altare* which exists in the meaning of "high place for sacrifice"; *benediction* from Lat.*benedictio* – "blessing*"; clergy* from Latin word *clericus* – "clergyman"; *credo* from *credo* has a meaning "I believe*"; divine* from *divinus* – "godlike"; *mass* from *missa* and receives

the meaning in English "dismissal, referring to the end of the liturgy"; *sacrament* from Latin *sacramentum* – "a solemn oath"; *sanctify* from *sanctificare* – *"to make holy";* *salvation* from Lat.*salvatio* – "saving"; and *trinity* from Latin word *trinitas* – "threefold"[6], [8].

Another group of words which has Latin origin refers to the educational sphere. These borrowings penetrated English through the medieval university system and scholastic tradition: *academia* from *academia* the word has Greek origin, but Latinized usage; *Alma mater* from *alma mater* – "nurturing mother", it is used for one's university; *curriculum* from *curriculum* – "course", "race"; *discipline* from *disciplina* – "instruction", "knowledge"; *educate* from *educare* which means "to lead out"; *graduate* from *graduari* – "to take a step", which in turn is derived from *gradus* – "step"; *lecture* from Lat. noun *lectura* – "reading"; *student* from *studens* receives the meaning "one who is eager, studying"; and *science* from *scientia* – "knowledge" [5], [7], [8].

In the Middle English period, a large number of Latinisms entered the English language through French, especially after the Norman conquest of 1066. Subsequently, during the Renaissance, Latin served as the language of science and education, so many new terms appeared as a result of direct or indirect borrowings.

A similar situation occurred with Greek words: at first, they entered English through Latin, especially in the field of philosophical, medical, and scientific terminology, and later - directly, especially in the eighteenth and nineteenth centuries, when modern scientific terminology was being formed.

Taking into consideration that the first layer of Greek words entered English through Latin, in English, this meant that Greek words had to be modified or latinized in spelling and endings before use. Thus, Greek *ϗ* (phonetically [k]) → Latin *c*, Greek *αϗ* (phonetically [ai]) → Latin *ae*, Greek *εϗ* ([ei]) → *i*, Greek *οϗ* (phonetically [oi]) → Latin *oe*, Greek *οʋ* (phonetically [ou])→ Latin *u*, Greek *ʋ* (phonetically [u])→ Latin *y* and Greek aspirated initial [ρ̇])→ Latin *rh* [8].

Hybrid forms of the words that combine Latin and Greek roots occur, especially in scientific and technical vocabulary. These are sometimes considered "linguistic

hybrids" because they mix elements from two different classical languages. For example: *automobile* is a hybrid word of Greek *auto-* which means "self" and Latin *-mobile* – "movable"; *helicopter* is the result of compounding of two Greek roots *helico-* "spiral" and *-pter* "wing". Here both roots of the word are Greek, but in spite of the fact that it is fully Greek, it is often mistakenly hybridized in compound use, as "heliport"; *hyperactive* from Greek *hyper-* "over", "excessive" and Latin *-active* "doing", "acting"; *monolingual* from Greek *mono-* − "one" and Latin *-lingual* "tongue"; *sociology* Latin *Soci-* "companion", "society" and Greek *-logy* "study"; and *television has* Greek root *Tele-* "far" and Latin root *–vision* "seeing" [5], [8].

In the Ukrainian language, the process of penetration of Latin and Greek borrowings has a different dynamic, due to a different historical and cultural situation. One of the first channels of Greek words was the Christianization of Kievan Rus in 988, which opened the way for the influence of Byzantine culture. Through the Church Slavonic language, which functioned as a language of worship and writing, numerous Greek lexemes, mostly of a religious nature, penetrated Ukrainian. The folliwing borrowings came through the translation of Greek liturgical texts into Church Slavonic, and subsequently filtered into Ukrainian: Church Slavonic ἄγγελος from Greek *ángelos* in Ukrainian *ангел* which means "angel"; Church Slavonic ἀπόστολος from Greek *apóstolos* Ukr. *апостол* which means "apostle"; ἐκκλησία from Greek *ekklēsía* in the Ukrainian language *церква* which means "church" via Slavic *cerkov'*, influenced by Greek; διάκονος from Greek *diákonos* Ukrainian *диякон* which means "deacon"; εὐαγγέλιον from Greek *euangélion* in Ukrainian *євангеліє* which in English means "gospel"; πρεσβύτερος from Greek *presbýteros* in the Ukrainian language means *пресвітер* and in Engkish is "presbyter" or "elder"; χριστός from Greek *christós* in Ukrainian is *Христос* which in English is "Christ".

Later, during the period of dominance of the Latin language in education and science (especially in the 16th and 17th centuries), when Ukraine was part of the Polish-Lithuanian Commonwealth, Latin words entered the Ukrainian vocabulary largely through Polish mediation. At this time, a layer of book vocabulary was formed, which included words of Latin and Greek origin from the fields of medicine, law,

philosophy, as well as words related to administrative and educational activities.

In subsequent periods of history, both English and Ukrainian continued to be enriched by Latin and Greek borrowings due to the development of new fields of knowledge, the growth of interlingual contacts, and the need to codify scientific, technical, medical, legal, and philosophical terminology. In the eighteenth and nineteenth centuries, English, like most European languages, saw a period of active formation of specialized terminology, particularly in biology, chemistry, and anatomy, where Greek and Latin elements served as the basis for the creation of new lexemes.

The functioning of Latin and Greek borrowings was accompanied by adaptation to the morphological system of the recipient language. One of the key aspects of the influence is the adoption of Latin suffixes into English word formation. In the process of word formation, new terms could acquire affixes in accordance with the grammatical norms of the respective language. In English, this is often manifested in word-formation models with Latin prefixes and suffixes, while in Ukrainian it is in attempts to combine a foreign base with specific word-formation means [2, p.77].

The following Latin suffixes are noun-forming: *-tion* or *-sion*, *-ment, -ity* or *-ty, -ance* or *-ence, -or* or *-er, -arium* or *-orium, -ist* and *–ary*.   Adjective-forming Latin suffixes are: *-al, -ary, -ic* or *-ical,-ive, -ile, -ous* or *-ious* and *-eous.* Greek verb-forming suffixes *-ize / -ise* came into English through Latin. Latin verb-forming suffixes *–ate, -ify, -efy* give English words a formal, technical, or abstract tone [5], [7], [8].

The examples of the adoption of Latin suffixes in formation of English nouns are following: celebra*tion*, expan*sion*, deci*sion*; develop*ment*, agree*ment*, govern*ment;* civil*ity,* activ*ity,* certain*ty;* resist*ance,* attend*ance,* independ*ence,* exist*ence;* act*or,* creat*or,* conduct*or,* advis*er;* planetar*ium,* auditor*ium,* sanator*ium;* art*ist,* scient*ist,* lingu*ist,*

In Ukrainian, Greek and Latin roots or bases are frequently combined with native or adapted word-formation means, especially affixes, to create new words. This blending process is particularly visible in scientific, technical, and abstract vocabulary, much of which was coined during the 19th–20th centuries as part of national language development.

Productive Slavic suffixes such as *-ість*, *-ик*, *-ува-ти*, and others are attached to Latin and Greek roots. For example: Ukrainian word *активність* is formed from Latin base *activus* and Ukrainian suffix *-н-ість* which means "activity"; Ukrainian word *демократія* is formed from Greek base *dēmokratía* and another Ukrainian *демократ* is created using the same base but different suffix *-ат* which means "democrat" (person); Ukrainian *інформувати* is formed from Latin base *informare* Ukrainian suffix *-ува-ти* which means "to inform"; Ukrainian модернізувати is formed from Latin base *modernus* and Ukrainian suffix *-ізува-ти* which means "to modernize".

Morphologically, borrowings in English often retain the Latin or Greek plural forms (e.g., *bacterium - bacteria, criterion - criteria, phenomenon - phenomena, octopus - octopi* (though also *octopuses*), *syllabus - syllabi, cactus - cacti, alga - algae, datum - data, curriculum - curricula, analysis - analyses,* although in modern usage there is a tendency to unify them according to the general model of English grammar, especially in informal speech (for example, *cactuses* along with *cacti*). In the Ukrainian language, such words acquire a familiar morphological paradigm in accordance with the grammatical categories of gender, number, and case. There is a complete integration into the declension system: *бактерія - бактерії, критерій - критерії, криза - кризи, феномен - феномени, аналіз - аналізи, склад - склади,* which allows lexemes to function organically in the syntactic structures of the Ukrainian language.

In the semantic dimension, Latin and Greek borrowings are usually part of the terminological vocabulary, retaining a highly specialized meaning. However, in the process of use, the meaning of some of them expands and they become more widely used. At the same time, sometimes the semantics of borrowing can be partially changed or narrowed in the recipient language. This phenomenon is observed when a word in a new language environment begins to function in a narrower context than in the source language [2, p.79].

In English, in particular, Latin and Greek loanwords often retain elements inherent in the original languages, allowing them to function as terms in specific scientific or cultural contexts. And although English actively simplifies the phonetic structure of some words to make them easier to pronounce, it still allows us to preserve many of

the characteristic features of the sound system inherent in Latin and Greek. One such example is terms used in medicine or law, where Latin roots can be found that retain their phonetic form and meaning even centuries after they entered English. For example: *agenda; affidavit* which literally means "declared under oath"*; bona fide* literally means "in good faith", it is often used in legal or administrative documents to confirm authenticity [8], [5]. The opposite meaning is *mala fide*, which means "dishonest"; *de facto; de jure; ex officio* is a Latin phrase that literally means "out of duty" and "in the performance of his duties". The phrase *"ex officio"* describes a person who performs certain functions through his or her official position; *Post Factum; Post Scriptum.*

Greek roots are often used to create neologisms and new words in modern English and Ukrainian. This is especially evident in medicine, where Greek roots are used to describe new diseases, procedures, and technologies, such as: *telemedicine* (Engl.) or *телемедицина* (Ukr.) which originated from Greek *τῆλε* – which means "far" and *ἰατρική* - "medicine"; *Telegram* (Engl.) or *Телеграм* (Ukr.) referring to a cloud-based messenger for mobile devices and computers that allows users to exchange text, voice, and video messages, as well as files of various formats.

As for morphological changes, there is a certain unification of loanwords in both languages. In English, there is often a tendency to simplify the morphology of words, in particular in the plural or cases, which corresponds to the general rules of English grammar: in addition to *bacterium - bacteria, forum - forums* (instead of *fora*), *curriculum - curriculums* (instead of *curricula*), *appendix - appendixes* (instead of *appendices*), *memorandum - memorandums* (instead of *memoranda*) are often used, *medium - mediums* (instead of *media* in some meanings), *aquarium - aquariums* (instead of *aquaria*), *millennium - millenniums* (instead of *millennia*), *campus - campuses*, *vertex - vertexes* (instead of *vertices*), *index - indexes* (instead of *indices*). At the same time, in Ukrainian, due to its more developed declension system, Latin and Greek borrowings are integrated in accordance with Ukrainian grammatical norms, where cases and genders play an important role. In the process of incorporating Latin and Greek loanwords in the Ukrainian language, they acquire morphological

characteristics typical for the Ukrainian language. For example: *активність* (ж.р.) – *активності, активністю, активності* (мн.); *демократія* (ж.р.) – *демократії, демократією, демократію, демократії* (мн.).

As for the comparative analysis, we acknowledge that Latin loanwords in English and Ukrainian have similar historical roots, but their adaptation to each of these languages is carried out through different linguistic processes, due to differences in the grammatical structure of each language. At the same time, English tends to retain most Latin borrowings in their original form. Another important feature is that English often does not require grammatical changes, while Latin and Greek borrowings retain their non-derivative form, making their use more universal and convenient in professional and academic contexts.

The Ukrainian language, in turn, due to its grammatical structure, which differs significantly from English, requires a deeper adaptation of Latin and Greek borrowings.

In the Ukrainian language, Latin and Greek borrowings often undergo changes in grammatical forms, such as cases or genders, which is not possible in English due to its less developed case system. Borrowed Latin words in Ukrainian are adapted to the requirements of grammar and declined by gender and number, as is typical for Ukrainian.

Conclusions. The Latin and Greek borrowings in both English and Ukrainian go through a complex process of adaptation, which can be traced in grammatical system of the both languages. This process is an integral part of the evolution of languages, and its results reflect the interaction of cultures and languages, enriching the lexical composition of each language. Borrowings illustrate the contribution to specialized vocabulary made by Latin and Greek. Many of these words and expressions continue to be used in various contexts today, reflecting the historical and linguistic connections between Latin, Greek, English, and Ukrainian. The study of such borrowings provides a deeper understanding of how languages adapt to new social and cultural conditions, preserving their uniqueness while integrating new elements that contribute to their development and enrichment.

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Abstract. This study presents a comparative analysis of Latin and Greek loanword integration into English and Ukrainian. While both languages share common historical roots of borrowings, their integration processes differ due to grammatical structures. English often retains the original form of loanwords, with minimal grammatical adaptation, especially in professional contexts. Ukrainian, by contrast, adapts borrowings more deeply, applying changes in case, gender, and number. These differences reflect broader linguistic and cultural dynamics. The analysis highlights how both languages evolve by integrating classical elements, enriching their vocabulary while maintaining grammatical integrity.
Keywords: integration, Latin and Greek borrowings, Ukrainian and English

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