

THE VARIABILITY OF TRANSCODING AND TRANSFORMATIONS OF THE EPONYM PROPRIAL COMPONENT IN THE INTERLINGUAL TRANSITION

BY

Stehnička Liubov^{1*}, Kiyko Svitlana², Shkolna Nataliia³,

¹Bukovinian State Medical University, Chernivtsi, Ukraine

²Yuriy Fedkovych Chernivtsi National University, Chernivtsi, Ukraine

³Ivano-Frankivsk National Technical University of Oil and Gas, Ivano-Frankivsk, Ukraine



Article History

Received: 06/02/2023

Accepted: 09/02/2023

Published: 11/02/2023

Corresponding author:

Stehnička Liubov

Abstract

Choosing the standard of eponym, which is an international layer of vocabulary, it is necessary to comply with criteria such as consistency, accuracy, uniqueness, reflexivity, the absence of an intermediary language, normativity, etc. But despite its versatility, when transferring an eponym from one language to another, its proprial component is often subject to certain changes. Such changes arise due to the variability of transcoding and transformation of the proper name, caused not only by the features of the recipient's language, but also by the anthropocentric character of the lexicography, which relies on certain experience and existing developments. The transcoding itself is often used when translating international realities; it can convey content as briefly as possible preserving the form. The main methods of proper name transcoding are transliteration and transcription. In addition to transliteration and transcription, eponyms undergo mixed and adaptive transcoding. As for transformations, such interlanguage transformations of the proper name can be made using graphic, grammatical and phonetic transformations. During the transition of proprial vocabulary from one language to another, such graphic transformations as the variable use of apostrophe, hyphen, capitalization, and diacritical marks are traced. Grammatical transformations are present in the form of permutations, substitutions, addition, deletions, and complex transformations. Manifestations of phonetic transformations occur by assimilation, dissimilation, epenthesis, dieresis, elision, palatalization, haplology and substitution. Lexical transformations are a quite rare phenomenon, and still can be traced in the form of generalization and substantiation, which are inherent in the main appellative component of eponym. Whereas, demetaphorization, interhyponymic transformation (replacement of realia) are possible manifestations of lexical transformations of the proprial component.

Keywords: eponym, variability, transcoding, transformations, interlingual transition.

INTRODUCTION

The general purpose of terminology is to ensure that the process of creating and using terminological names is more manageable and facilitates the rationalization of professional communication. The construction and standardization of new terms is a linguistic interference that involves artificial interference with the natural development of the language, first of all in its vocabulary, with the introduction of corresponding changes and innovations there

(Panko 1994:6). Such an artificial selection of forms and variants is carried out in order to select the most successful variant and to approve it as a standard. Despite the fact that eponyms are an international vocabulary layer that is equally understandable in different languages within the terminology of medicine, these terminology units also have undergone certain transformations, which led to the presence of parallel forms.

The purpose of our study is to identify the transformations experienced by the eponyms during the interlanguage transition. The objectives of the study are: identifying the main types of transcoding, analyzing interlanguage transformations, and tracing the adaptation of the proprial component of the eponym to the language rules of the recipient language. The subject of the study are the eponyms of the English clinical terminology.

Material and methods

We have analyzed 1600 units selected from the *English-Ukrainian Dictionary of Clinical Eponymous terms* compiled by L. Stehniiska and S. Kiyko. A comprehensive qualitative analysis of the proprial component of the eponym was carried out using the comparative method and the matching method, in particular, in the framework of the English and Ukrainian languages.

Results

Transcoding. In our study, we have considered such methods of proper name transcoding as transliteration and transcription. Transliteration as a formal transformation of the letters of the original term using the alphabet of the translation language constitutes 224 units (14%) of the sample. Transcription, i.e., interlingual transcription, as a formal phonemic transformation of the original lexical unit, encounters in 848 units (53%) of eponymous terms. Mixed transcoding, which combines transcription and transliteration, are represented in 528 units (33%) of the sample. In addition to transliteration and transcription, eponyms undergo mixed and adaptive transcoding. Adaptive transcoding, namely adaptive endings, is found in 1296 units (81%), which is to adapt only certain aspects to the phonetic and grammatical structure of language, for example, adding inflection -a to the surname component in the formation of the genitive case of masculine nouns of the second declension with zero ending.

Transformation. The streamlining of English clinical eponymous terminology has led to the following transformations of eponyms: 1) graphic transformations are present in 512 units (32%) of the sample, which are manifested in the variable use of hyphens, diacritical marks, and capitalization; 2) phonetic transformations are found in 336 units (21%), including palatalization, epenthesis, dieresis, elision, hapology, and substitution; 3) grammatical transformations of eponyms constitute 624 units (39%), including permutation, substitution; 4) lexical transformations are detected only in 128 units (8%), which contain the replacement, addition, concretization and generalization of concepts and interhyponymic transformation, i.e., the replacement of realities due to the influence of cultural and associative factors (See Figure 1.).

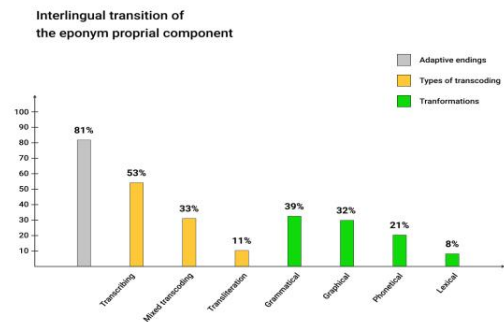


Figure 1. Quantitative findings present changes in the eponym proprial component resulted from interlingual transition

Discussion

Transitioning proper names from one language into another is generally recognized as a significant problem in mapping source language phonemes or graphemes into the target language. The problem of translation transformations and standardization of terms is highlighted in the works by E. Skorokhodko (2002, 2006), T. Kyiak (1989, 2006), V. Karaban (2011), A. Dyakov et al. (2004), V. Komissarov (1973,1978), L. Barkhudarov (1975), Ya. Retsker (2007), and others. Machine transliteration of proper names have been addressed extensively in works of K. Knight (2007), K. Knight and J. Graehl (1998), Al-Onaizan et al. (2003), L. Jiang et al. (2007), Zhao et al. (2007), D. Matthews (2007), etc.

1. Eponym transcoding

Interlingual interference belongs to complex lexical-semantic transformations that occur in the terminological system of modern English as a result of linguistic contacts affecting the evolution of its terminological corpus [Pomirko, Dudok 2016:9]. Since language is a system where everything is interconnected, the process of interference determines a certain reorganization of its phonetic, grammatical, or lexical systems, when foreign language elements enter the language (Dudok 2017:130). Such an artificial selection of forms and options is carried out in order to choose the most successful option and approve it as a standard. Linguistic interferences are caused by the anthropocentric nature of lexicography and often cause variability of forms, in particular in the codification of the proprial component of the eponym, which complicate the entry of the eponym in the dictionary. Such linguistic adaptation of eponyms requires time and effort since the proprial component of the eponym often undergoes changes during the language transition. Despite the fact that eponyms are an international layer of vocabulary, equally understood in different languages within medical terminology, these terminological units have also undergone certain transformations, which has led to the present of parallel forms. The graphical and sound ways of transferring foreign-language proper names, that is, transliteration and transcription within a given language, can, as quickly as possible, convey content with the preservation of the form. Traditionally, transcoding is considered to be a translation method, which is carried out by transferring the sound or graphic form of the source language to the means of the alphabet of the language of translation. Such a way of transmitting information is quite reliable

in the translation of international realities since it prevents their misinterpretation. The main types of transcoding are transliteration and transcription, which in turn may be subject to mixed and adaptive transcoding.

1.1. Transliteration is a formal conversion of the letters of the output lexical unit using the alphabet of the translation language. The basic requirements for transliteration were formed by O.O.Reformatskyi, including internationality, unambiguity, reversibility, and controllability, which will ensure "one hundred percent reproduction of the transliterated unit in original writing without any distortion" (Dyakov 2004:142). For unambiguous and standardized reproduction of foreign names, the Cabinet of Ministers of Ukraine adopted Resolution No. 55 "On the normalization of the transliteration of the Ukrainian alphabet using the Latin alphabet" in 2010, according to which the transliteration of Ukrainian names (surnames and geographical names) is carried out in accordance with the Latin alphabet with unified transliteration rules (Resolution 55). Regarding the reproduction of foreign language proper names in the Ukrainian language, the main rules are set out in the Ukrainian spelling rules, which, in 2018, were updated and filed for consideration by the Ukrainian National Commission on Spelling Rules (Ukrainian orthography (draft for discussion), 2018:128). Also, in order to arrange the exoticisms that filled the Ukrainian language, the following principles of transliteration standards were developed and approved: consistency, accuracy, unambiguity, recurrence (recovery after re-transliteration), absence of an intermediary language, traditionality (consideration of phonetic and graphic traditions of the language), normativity (compliance with current standards), coding (lack of diacritics for computer shipment) (Vakulenko 2012:337).

Having analyzed the eponyms in the English clinical terminology, it was found that some of the surnames had been transmitted into the recipient language using transliteration, such as *Balo disease* – *хвороба Бало*, *Banti disease* – *хвороба Банті*, *Luria classification* – *класифікація Лурія*, etc. The doubling of consonants was preserved and could be traced in practically all names, such as *Abbe operation* – *операція Аббе*, *Arroyo sign* – *симптом Арройо*, *Vaccelli sign* – *ознака Баччеллі*, *Bassini operation* – *операція Бассіні* and others. Besides, doubling of the vowels, in particular *Aaron sign* – *симптом Аарона*, *Aarskog-Scott syndrome* – *синдром Аарског-Скотта*, *Aase syndrome* – *синдром Аазе*, which, in our opinion, is also a consequence of transliteration because long and short vowels (phonemes) are not specific for the Ukrainian language. And only a small part of the eponyms lost this doubling, such as *Alagille syndrome* – *синдром Алажіля*, *Alezzandrini syndrome* – *синдром Алезандріні* and others, probably due to transcription or because of the recommended character of doubling consonants according to Ukrainian spelling (Ukrainian orthography, 2015). Thus, with the transfer of the proper name into the Ukrainian language, there is a variation in the

doubling of consonants and vowels, since according to the rules of the Ukrainian spelling, doubling of consonants does not occur in proper names, and such transliteration is recommended for the proper names. It is assumed that transliteration of proprial vocabulary has a sociolinguistic character and changes according to the current rules and norms of the recipient's language, which observance will contribute to the arrangement of eponyms in clinical terminology.

1.2. Transcribing, i.e., interlanguage transcription is a formal phonemic transformation of the original lexical unit (Alekseeva 2004:220). The inherent feature of transcribing is the variability of transcriptions due to the evolutive nature of transcripts (Mondada, 2007:810). A significant number of eponyms has undergone transcription, since the digraphs, diphthongs, and letter combinations inherent in other languages are not typical of the Ukrainian one, and the transfer of the proper names will altogether lead to cacophony. Examples of transcription are eponyms such as *Graefe syndrome* – *Грефе синдром*, *Beckwith syndrome* – *синдром Беквіта*, *Schede operation* – *операція Шедє*, *Bouillaud symptom* – *симптом Буїо*. The striking consequence of transcribing are two identical surnames of different origin, such as *Brown-Sequard syndrome* (named after French physiologist Charles E. Brown-Séquard, 1817-1894) – *синдром Броун-Секара* and *Brown-Symmers disease* – *синдром Брауна-Сіммерса* (named after American physician D. Brown, 1879-1952). When transferring the proper name from one language to another, transcribing is quite common practice, since transliteration can change the eponym out of all recognition, as in the case of *Ewing sarcoma* – *саркома Евінга/Юінга*, that will lead to erroneous medical interpretation. In addition to transliteration and transcription, eponyms undergo mixed and adaptive transcoding.

1.3. Mixed transcoding is considered a combination of transcription and transliteration, in which the sonority of the name is preserved with the doubling of letters, for example, *Dennie sign* – *симптом Денні*, *Pellegrini-Stieda syndrome* – *синдром Пеллегріні-Штіда*, *Trousseau syndrome* – *синдром Труссо* and others.

In its turn, **adaptive transcoding** is transcoding, which only slightly adds to the phonetic and grammatical structure of the language. We believe that the example of the adaptive transcoding is adding an ending **-a** to the last name component of the eponym. In the Ukrainian language, such a flexion is typical of a genitive case of the masculine gender nouns of the second declension that end with a consonant (zero ending), for example, *Perlman syndrome* – *синдром Перлмана* or *Behr syndrome* – *синдром Бера*, or the final vowel is mute, e.g., *Fox-Fordyce disease* – *хвороба Фокса-Фордайса* or *Duchenne disease* – *хвороба Дюшена*. If the proper name ends in a vowel, then it is preserved without adding a characteristic ending, which can be seen in the following examples: *Heiley disease* – *хвороба Хейлі*, *Mondini deafness* – *глухота Мондіні*, *Patau syndrome* – *синдром Патая*.

In addition, as it follows from the above examples, the ending *-a* is added to all surname components of the eponym. It should be noted that in the Ukrainian language when the genitive case of women surnames is created, the ending *-a* is not added, and accordingly, we have the following results: *Frey syndrome – синдром Фрей* and *Holt-Oram syndrome – синдром Голт-Орам*. Besides, the eponyms that come from common names, such as *Shevron osteotomy – Шеврон остеотомія*, also have no adaptive ending. Also, an adaptive transcoding can be observed in the surnames with *-uï* ending, which, when the genitive case is created, acquire an adjectival ending *-ozo*, as in the following surnames: *Babinski sundrome – синдром Бабінськозо* and *Biernacki sign – симптом Бернацькозо*. Thus, the interlanguage transition of the eponyms is performed using transliteration or transcription and often experiences mixed and adaptive transcoding. Selection of the eponym standard should be based on the phonetic and grammatical structures of the language taking into account the term's euphony and gender anthropocentrism.

2. Eponym transformations

In general, transitions are interpreted as inter-language transformations by rearranging the source text or by replacing its elements in order to achieve translation adequacy and equivalence to preserve the functional effect of the message (Vinogradov, 2001). Actually, there is no single classification system for transformations, as well as a list of translation techniques that belong to transformations. As for eponyms, the desire to streamline clinical terminology led to certain graphic, grammatical, and phonetic transformations of its proprial component.

2.1. Eponym graphical transformations

Graphical transformations are changes that do not differ in hearing but are visualized only in writing. This study reveals the manifestations of graphical transformations in the variable use of apostrophes, dashes, diacritical marks, and the capitalization of the proprial component of the eponym.

The **apostrophe** in English is an exclusively graphic sign that does not denote sound. Despite the notion that within the medical terminology, it should be abandoned, the apostrophe is still used to create a possessive case or to denote a misspelled letter, such as *Gaucher's disease* and *D'Amato symptom* respectively. The use of the proper name without apostrophe has become standard practice in two- and multi-component eponyms, and there is still no consensus on the feasibility of using a possessive form of eponym with one proprial component. Despite the decision of anatomist to stop using the apostrophe, which was adopted in 1974 during a conference at the American Institute of Health, synthetic forms are still used in such authoritative sources as *A New Dictionary of Eponyms* by Morton S. Freeman and *Medical Eponyms* by Andrew J. Lee. *Dorland's Illustrated Medical Dictionary* is the golden path and presents both forms, while in the 2nd edition of the *Stedman's Medical Eponyms dictionary*, the terminology units are given without the apostrophe.

Despite the fact that the issue of the use of apostrophe remains at the stage of discussion and studying, there is a tendency towards a gradual decrease in the use of the synthetic form of the possessive

case presented in various recommendations. For example, according to the standards developed by the American Medical Association Manual of the Style, when arranging research material on medical topics, it is advisable to use the possessive case with those eponyms named after the person who described or discovered, all the others should be used without apostrophe. Also, for the graphic standardization of eponyms, certain rules for the apostrophe abandonment are suggested, in particular, in the following cases: the proper name ends with *ce, s, z*; the next word after the proper name begins with the letters *c, s, z*; one surname includes two words; the eponym contains two or more surnames; the definite or indefinite article is used before the name (Iverson, Christiansen, Flanagan et al., 2007:778). In addition, the US National Institutes of Health (NIH) and the World Health Organization have called on the medical community to refrain from using the possessive case to reduce the misconceptions that researchers were ill with this disease. The ongoing debate on the use of apostrophes led to a number of studies into the prevalence of eponyms with and without apostrophe (Ayesu, 2018). In particular, the study on the use of two *Down syndrome* and *Down's syndrome* graphic forms in printed and electronic sources in 1998 and 2008 was carried out (Jana 2009) and their frequency of use was compared. During the first and the second stages of the research, there was a tendency in the works of European scholars towards a steady gradual decrease in the use of the possessive form of the eponym in favor of a non-possessive form, whilst, in American publications, only the use of the '*Down syndrome*' option was revealed. Whereas, the *National Down Syndrome Society* and the *National Down Syndrome Congress* supported the use of *Down syndrome* eponym instead of *Down's syndrome*, arguing that the main value of the possessive case is to indicate affiliation with someone or something, while the syndrome does not belong to anyone (The National Down Syndrome Congress. A press statement). We support the aspiration of scholars to abandon the use of apostrophes, which will facilitate the standardization of terminology and will help avoid misunderstanding, as in the case *Gower sign* and *Gowers syndrome*, where both terms are named after Sir William Richard Gowers (1845-1915), the English neurologist, and the different spelling of the surname is caused by the different use of the apostrophe. It is also worth mentioning that the same tendency is observed in surnames ending with *-s*, such as: *Isaacs syndrome*, *Isaac's syndrome*, *Isaacs' syndrome*, and *Abrams heart reflex*, *Abrams' heart reflex*, *Abram's heart reflex*. We believe that the absence of the apostrophe does not affect the meaning of the term, since its own name performs a descriptive and attribute function, and does not indicate an affiliation with anyone.

Hyphen is a graphic sign "used to connect words that are more closely linked to each other than to the surrounding syntax and to avoid ambiguity" (WHO style guide 2004:21). In medical terminology, the hyphen is used in multicomponent eponyms to differentiate the number of memorized scholars. The eponyms containing two or more surnames, in accordance with the norms of the Ukrainian spelling, are written through a hyphen, which clearly indicates the number of surnames, such as *Koerber-Salus-Elsching syndrome* or *Werdnig-Hoffmann disease*. Yet, this is not the only

principle of using the hyphen, the use of which depends on the language of the recipient.

As an example, we will consider eponyms *McLeod syndrome* – *синдром Мак-Леода* and *MacCune-Albright syndrome* – *синдром Мак-Кюна-Олбрайта* respectively. Such variable use of the graphic sign is conditioned by the linguistic rules of the Ukrainian language, according to which the particles *Ван-, Мак-, Сан-, Сен-*, which precede the surnames and at the same time are their integral part are written through a hyphen. But we can also observe the following forms like *Маклеод* and *Маккензі*, which probably appeared earlier. The following eponyms *Brown-Sequard syndrome* та *Helweg-Larsen syndrome* also suggest a list of the names of scientists and does not indicate a double surname. Due to the inflection of the Ukrainian language, the distinction of a two-component family name is possible due to the genitive case endings, *синдром Броун-Секара* and *синдром Хельвег-Ларсена*. In addition, in two-component eponyms, which are used without a hyphen, there is a tendency to use the name and surname: *Corino de Andrade disease* – *хвороба Коріно де Андраде* or *Parkes Weber syndrome* – *синдром Паркса Вебера*. The random use of the hyphen may lead to misinterpretation and confusion in other languages, which can lead to errors in the study of the term etymology, as in the following examples: *Braxton Hicks contractions* and *Braxton-Hicks contractions* (named after English physician John Braxton Hicks 1823-1897). It should be noted that polycomponent eponyms, such as the *Fitz-Hugh-Curtis syndrome*, require a preliminary study of etymology, since only the ending of the last component of this term *синдром Фітц-Х'ю-Куртіса*, clearly indicates one person. But this eponym is named after two doctors: *Fitz-Hugh* and *Arthur Hale Curtis*. Thus, the graphic transformations of the eponym are possible due to the variation in the use of a hyphen which does not always differentiate the number of persons in the eponym but may indicate a double surname or part thereof, and its absence indicates mostly the name and surname of the person involved in the appearance of the nosologic unit.

Capitalization of the surname component. Since the main feature of the proper name is writing it with capital letters, it is quite obvious that all names and surnames in interlanguage transition will retain capitalization. Still, certain graphical transformations arise from the variable writing of particles or articles such as *de, da, van, von,* and others that are part of the surnames. A significant part of the surnames containing function words are subject to graphic changes, as in *Da (da) Costa syndrome* – *синдром Да (да) Коста* or *De (de) Morsier syndrome* – *синдром Де (де) Морсьє*. We assume that variable capitalization is the result of the presence of an intermediary language for which such particles are alien. Since English is often the intermediary language, then, because of the binariness of the English version of the eponym, there is no single Ukrainian variant. In order to arrange eponyms writing a proper name with a lowercase or uppercase letter must coincide with the source language, regardless of valid rules that vary within each recipient language and are often subject to updates and changes.

Diacritic marks, such as umlaut, acute, grave, and others, used to denote a special pronunciation of letters, often disappear or simply are lost during the interlingual transitions. Such transformations are the result of the absence of the above-mentioned symbols in the recipient language and are perceived as alien and incomprehensible. Besides, they create difficulties in transferring information through online media, since the keyboards do not contain them. We consider that preserving the diacritic marks in writing, such as *Böök syndrome* or *Behçet syndrome* is not obligatory, because while transferring such eponyms into another language, these phonetic features are taken into account when transcribing the terms.

2.2. Phonetic transformations

Phonetic transformations are understood as phonetic changes that affect the pronunciation or system of sound structures. The phonetic changes can be both general (caused by a certain rule, under which changes occur in each word of the language for which certain conditions are met) and individual (occur for one word or a group of words). Typically, these changes are designed to simplify the pronunciation of sound combinations. The phonetic transformations include assimilation, dissimilation, epenthesis, elision, haplology, compensating elongation of vowels, sandhi, and others. Having analyzed the eponyms of English clinical terminology, we have found that in the interlingual transition, in particular from English to Ukrainian, the following below transformations are present.

Palatalization or, softening of consonants, which is characteristic for surnames of French or German origin. In the transition to the Ukrainian language, consonant softening is transmitted through a soft sign or iotated vowels, for example *Klippel-Weil sign* – *симптом Кліппеля-Вейля* or *Ullrich Feichtiger syndrome* – *синдром Ульріха-Файхтігера*. Sometimes palatalization is absent as in the following example: *Leriche syndrome* – *синдром Леріша*. The absence of palatalization in this term is the result of the occasional choice of transcoding or the lack of the iotated vowel that transmits a phoneme [льо].

Assimilation is the phonetic change in which one sound becomes like another one, or two sounds become closer to each other. The example of assimilation can be the adaptation of not only neighboring deaf and sonorous consonants but also vowels, in particular [i] with hushing sounds in the Ukrainian language they assimilate into [u], as in *Schilder disease* – *хвороба Шильдера*; *Schiller test* – *тест Шиллера*; *Schimmelbusch disease* – *хвороба Шимельбуша*.

Epenthesis is a sound insertion between two adjacent ones. The example of epenthesis is the appearance of sound [i] at the coincidence of two vowels, as in eponyms *Heerfordt-Waldenström syndrome* – *синдром Геєрфордта-Вальденстрема* or *Rothmann-Makai syndrome* – *синдром Ротманна-Макаї*, which makes pronunciation easier.

Diaeresis is the opposite process to epenthesis, that is, loss of sound. In interlingual transition, the loss of consonant sounds can be observed in the following eponyms: *Schultz-Charlton test* – *Шульца Чарлтона*, *Purtscher retinopathy* – *ретинопатія*

Пурчера; Schöpf-Schulz-Passarge syndrome – синдром Шон-Шульц-Пассаржа. We assume that the loss of sounds takes place due to the assimilation of sounds or the accumulation of consonants that which complicate the pronunciation.

Elision is the omission of one or more sounds (such as a vowel, a consonant, or a whole syllable) in a word or phrase. Such phonetic changes are present in the names with articles like *D'Amato symptom* and *d'Espine sign*, and in the surnames with *Mc (Mac)* in the following eponyms: *McLeod syndrome* or *McKenzie syndrome*.

Haplology is a contraction of the word by omission of one or more similar sounds or syllables. Such a kind of phonetic transformation is present in the eponyms *Letterer-Siwe disease – хвороба Лемтєпера (Лемтера)-Сіва, Graham-Little syndrome – синдром Грехема (Грема)-Літла or Ehlers-Danlos syndrome – синдром Елерса-Данлоса (Данло)*, which presumably are manifestations of euphony.

Substitution is a replacement of a foreign sound by the own one in borrowed words. An example of such a replacement is the use of an autochthonous letter *Ū* in the foreign surnames as in the following example *Goltz syndrome – синдром Гольтца*. The use of the apostrophe, which denotes a hard pronunciation in writing, can be also considered as a substitution, e.g. *Bjornstad syndrome – синдром Б'єрнстада*. Phonetic transformations are present even in the form of an internal at morpheme boundaries, sandhi as in the last name *Köhler disease – хвороба Келлера*. Thus, it is possible to explore phonetic transformations in the presence of a spelling variant, which is not always the only one and depends on a direct interlanguage transition or an existing intermediary language. In addition, phonetic transformations, in particular in the Ukrainian language, is a consequence of the improvement of the spelling norms that undergo changes and amendments, and the desire of the term euphony.

2.3. Eponym grammatical transformations

Under grammatical transformations is understood “the kind of translation transformations that consist in replacing during the translation of grammatical forms and structures of the original language units with formally non-equivalent forms and structures of the language of translation while preserving meaningful correspondence between them” (Semionov 2005:72). V. Karaban suggests to distinguish between five main types of grammatical transformations: permutation (transposition), substitution (replacement), addition, extraction, and complex transformation (Karaban, 2001).

Transposition is the grammatical transformation that changes the order of words in a phrase or sentence. The main manifestation of such a permutation in the Ukrainian language is the sequence of proper and general names use. This order of words is exactly the opposite of the English version of the interlingual transition: *Thorn syndrome – синдром Торна or Felty syndrome – синдром Фелті*. Regarding the sequence of proper names in polycomponent eponyms, then, as a rule, the order of surnames corresponds to the years of life of the scientist, that is, the successive contribution of every scholar into a particular study, for example: *Shwachman-Bodian-Diamond syndrome* (H.Shwachman (1910-1986),

M.Bodian (1912-1994), L.K. Diamond (1902-1999)). Yet, the order of words in the eponym is not fixed, therefore, the names during transition to the other language are often the subject to permutation, such as *Gee-Heubner-Herter-disease – хвороба Гі-Гертера-Гейбнера*.

We assume that the main reasons for such variability are the mellifluousness of the term or the priority of the scientist in the study. In our opinion, it is expedient to use the order of surnames according to the years of life of the scientist, or the years of appearance of the invention and its gradual improvement by researchers.

Addition is the grammatical transformation of the target language sentence structure when new elements non-existent in the source language appear in the target language text in accordance with the requirements of the structural adequacy, e.g. *DiGeorge syndrome – синдром Ді Джорджі or Polhemus-Schafer-Ivemark syndrome – синдром Шафера*. We believe that there are several reasons for this type of grammatical transformation, including the difference between the grammatical rules of the recipient's language, difficult pronunciation, or if the number of surnames increases as a result of the improvement of the discovery that is not yet known to the general public.

Substitution is the change of the grammatical category to which the source language unit belongs. These type of transformation falls into a number of sub-types depending on the grammatical categories that are substituted. The possible manifestation of the substitution is the transition of the auxiliary part of speech into an independent one, as in the eponym *Le Fort amputation – Лефора ампутація*, which is probably due to the occasional choice or faux-pas word. Besides, in the interlingual transition, the adjective, as one of the ways of creating a possessive case, can be transformed into a noun, e.g.: *Hippocratic nail – ніготь Гіпнократа or Pickwickian syndrome – синдром Піквіка*.

Omission is the reduction of the elements of the source eponym considered redundant from the viewpoint of the language of translation structural patterns and stylistics. This transformation at the grammatical level is caused by the differences in the grammatical structures of English and Ukrainian. An example of the omission is the transition of the analytical form of the eponym, where the preposition *of* is omitted: *angiokeratoma of Mibelli – ангиокератома Мібеллі or ash dermatosis of Ramirez – попелястий дерматоз Раміреса*.

Complex transformation includes two or more grammatical transformations as in the following eponym: *the diabetic Charco foot syndrome – синдром діабетичної стопи, Abadie sign of tabes dorsalis - симптом Абаді* where both transposition and omission are present. Consequently, in the interlingual transition, the eponyms undergo grammatical transformations, which are the result of the adaptation of eponyms to grammatical rules of the recipient language, and the desire for sonority and simplification of pronunciation.

2.4. Eponym lexical transformations

Lexical transformations are considered the various kinds of changes in the lexical elements of the original language during the

translation in order to adequately convey their semantic, stylistic, and pragmatic characteristics, taking into account the norms of the language of translation and the traditions of the language of translation culture (Karaban 2001:39). T. Levitskaya and A. Fiterman distinguish lexical transformations, which include the replacement and addition, concretization and generalization of concepts (Levitskaya, Fiterman 1963:56). Regarding eponyms, the differentiation (the original word is replaced by the word with "narrower semantics" in the target text) or generalization (the replacement by the word with a broader meaning) is inherent, as a rule, in the appealing component of the eponym, e.g.: *Bekhterev spondylitis* – *хвороба Бехтерева* (Bekhterev disease) and *Otto-Chrobak pelvis* – *хвороба Омто-Хробака*. The appellative component is subject to substitution, which occurs through the adjacent notions of the sign (subjective sign of the disease) and the symptom (objective sign of the disease), as in *Amoss sign* – *симптом Амосса* or *Stellwag sign* – *симптом Штельвага*. As for the proprial component, only its replacement can be observed, e.g.: *Naegeli-Franceschetti-Jadassohn syndrome* – *синдром Негелі-Блоха-Ядасона*. Also, during the transition from one language to another the eponym can be subjected to an interhyponymic transformation, that is, the replacement of realities. Such an example is *синдром Плюшкина* (the Gogol's character, known primarily in the post-Soviet space), which in all other countries is more commonly known as the *Diogenes syndrome*. There are examples when the substitution occurs through demetaphorization, that is, replacing the metaphor with its antipode: *Niikawa-Kuroki syndrome* – *синдром Кабуки*. We assume that the lexical transformation in the form of replacing surnames arises due to certain realities, i.e., their absence in the language of the recipient or pronunciation difficulty with the foreign language terms.

Conclusion.

When transferring from one language to another, the eponyms are often subject to certain changes that lead to the appearance of variation forms. The presence of such binary variants is due to changes in the spelling rules of the recipient language, which are often supplemented and refined. The transcoding variability is also facilitated by the absence of a reciprocal and unambiguous correspondence between the transliteration marks and the graphs of the original, which in turn cannot provide a 100% possibility of the reciprocal transfer of the transliterated record. Furthermore, the terms undergo a certain adaptation to the phonetic and grammatical rules, in particular, in the Ukrainian language, which leads to the phonetic and lexical, and grammatical transformations of the surname in the eponym and, as a result, to the emergence of its binary forms. The emergence of various forms is also the result of applying the intermediary language, English, as the language of international communication, as well as anthropocentric character of lexicography.

References

1. Alekseeva, I. (2004). Introduction into Theory of Translation. Moscow: Academia. (in Russian)
2. Al-Onaizan, Yaser; Germann, Ulrich; Hermjakob, Ulf; Knight Kevin; Koehn, Philipp; Marcu, Daniel; Yamada, Kenji. (2002). Translation with Scarce Bilingual Resources. *Machine Translation*, 17: 1–17.
3. Ayesu, Kwabena; Nguyen, Brenda; Harris, Stephanie; Carlan, Steve S. (2018). The case for consistent use of medical eponyms by eliminating possessive forms. *J Med Libr Assoc.* 2018 Jan; 106(1): 127-129. doi: 10.5195/jmla.2018.284 PMID: PMC5764578
4. Barkhudarov, Leonid. (1975). Language and translation. Questions in the general and specialized theory of translation. Moscow: MO. (in Russian)
5. Dudok, Roman. (2017), Interlingual processes of interference in English terminological system. *Terminological Bulletin*, 4: 129-135. (in Ukrainian)
6. Dyakov, Oleksandr; Kyiak, Taras; Kudelko, Zoia. (2004), Fundamentals of the term formation: semantic and sociolinguistic aspects. Kyiv: Academia. (in Ukrainian)
7. Iverson, Cheryl; Christiansen, Stacy; Flanagan, Annette, et al. (2007). *AMA manual of style: a guide for authors and editors*. 10th ed. New York, NY: Oxford University Press.
8. Jana, Narayan; Barik Sukumar; Arora, Nalini. (2009). Current use of medical eponyms – a need for global uniformity in scientific publications. *BMC Med Res Methodol.* 2009; 9: 18. doi: 10.1186/1471-2288-9-18.
9. Jiang, Long, Zhou, Ming; Chien, Lee-Feng; Niu, Cheng. (2007). Named entity Translation with web mining and transliteration. *Proceedings of the 20th International Joint Conference on Artificial Intelligence*, 1629–34.
10. Karaban, Viacheslav. (2001). Translation of scientific and technical literature. Vinnytsia: Nova Knyha. (in Ukrainian)
11. Knight, Kevin. (2007). Capturing practical natural language transformations. *Machine Translation*, 21(2): 121-33.
12. Knight, Kevin; Graehl Jonathan. (1998). Machine transliteration. *Computational Linguistics*, 24 (4): 599-612.
13. Komissarov, Vilen. (1973). A word on translation. Moscow: MO. (in Russian)
14. Komissarov, Vilen. (1978). Issues of translation theory in foreign linguistics. Moscow: MO. (in Russian)
15. Kyiak, Taras. (1989). Linguistic aspects of terminology. Kyiv: UMK VO. (in Ukrainian)
16. Kyiak, Taras; Ohui, Oleksandr; Naumenko, Anatolii. 2006. The theory and practice of translation. Kyiv: UMK VO. (in Ukrainian)
17. Levitskaya, Tatiana; Fiterman, Ada. (1963). Theory and practice of translation from English into Russian. Moscow: The Foreign Languages Publishing House. (in Russian)
18. Matthews, David. (2007). Machine Transliteration of proper names. Master's Thesis, University of Edinburgh, Edinburgh, United Kingdom.

19. Mondada, Lorenza. (2007). Commentary: Transcript variations and the indexicality of transcribing practices. *Discourse Studies* 9(6). 809–821.
20. Panko, Tamila; Kochan, Iryna; Matsyuk Halyna. 1994. Ukrainian terminology. Lviv: Svit. (in Ukrainian)
21. Pomirko, Roman; Dudok, Roman. (2016). Language interference in formation of social and political terminology. *Visnyk of the Lviv University*, 23: 3–9. (in Ukrainian)
22. Retsker, Yakov. (2007). The theory of translation and translation practice. Moscow: R. Valent. (in Russian)
23. Semionov, Arkadiy. (2005). Main guidelines of the general theory of translation. Moscow: RUDN. (in Russian)
24. Skorokhodko, Eduard. (2002). Modern English terminology. Kyiv: UILM. (in Ukrainian)
25. Skorokhodko, Eduard. (2006). Term in a scientific text. Kyiv: Logos. (in Ukrainian)
26. Stehnitska, Liubov; Kiyko Svitlana. (2019). English-Ukrainian dictionary of clinical eponymous terms. Chernivtsi: Yuriy Fedkovych Chernivtsi National University.
27. Vakulenko, Maksym. (2012). On scholarly principles of forming the Ukrainian Latin alphabet as an international code. *Language and society*, 3: 333–343. (in Ukrainian)
28. Vinogradov, Venedikt. (2001). Introduction to theory of translation. Moscow: Institute of General Secondary Education RAO. (in Russian)
29. Zhao, Bing; Bach, Nguyen; Lane, Ian; Vogel, Stephan. (2007). A Log-linear Block Transliteration Model based on Bi-Stream HMMs. *Proceedings of NAACL HLT*, 364–371.
30. Resolution No. 55. (2010). Available at: <http://zakon.rada.gov.ua/laws/show/55-2010-%D0%BF>
31. The National Down Syndrome Congress. A press statement. Available at: <https://www.imdsa.org/Resources/Documents/About/Language.pdf>
32. Ukrainian orthography (draft for discussion). 2018. Available at: <https://mon.gov.ua/storage/app/media/gromadske-obgovorennya/2018/08/15/novoi-redaksii-pravopisu.pdf>
33. Ukrainian orthography. Kyiv: Naukova Dumka, 2015.
34. WHO style guide. (2004). World Health Organization. Available at: http://www.ianphi.org/documents/pdfs/toolkit/who_style-guide.pdf