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## CONTRASTIVE ANALYSES OF SYLLABLES IN ENGLISH AND UKRAINIAN

Работа посвящена сопоставительному анализу основных характеристик слогообразования и слогоделения в английском и украинском языках. Рассмотрены типологически сходные, универсальные и кон-кретно-языковые черты слоговой структуры в двух неблизкородственных языках.

Ключевые слова: контрастивный анализ, слогоделение, слогобразование, типологически сходные, универсальные и конкретно-языковые характеристики.

Робота присвячена зіставному аналізу головних характеристик формування та делімітації складів в англійській та українській мовах. Розглянуто типологічно подібні, універсальні і конкретно-мовні особливості складової структури у двох неблизько-споріднених мовах.

Ключові слова: контрастивний аналіз, склодоподілення, формування складів, типологічно подібні, універсальні та конкретно-мовні характеристики.

The research is devoted to the problem of contrastive analysis of principle characteristics in syllable division and formation in English and Ukrainian. The typological, universal and specific features of syllable structure in the two languages are regarded.

Key words: contrastive analysis, syllable division, syllable formation, typological, universal and specific characteristics.

Nowadays great attention is paid to the syllable in theory of philology and practical application of theoretical knowledge. It is connected with the progress made in solving the problems of artificial intellect, machine translation, etc. In this respect the pronunciation regularities of a language and the syllables structure and its functional variability are of primary importance [1-3].

It's well known that a syllable is the first undividable unit of speech. Contrastive study of the syllables in English and Ukrainian is aimed at finding the differences existing between syllables the languages under analysis, the peculiarities in syllable structure and syllable division and the syllabic typology in the compared languages.

The universal nature of articulatory mechanism of syllable formation and division gives rise to the problem of language peculiarities in the sphere of phonematic structure of the syllables, in the set of the types and subtypes of syllables, in the stability of syllable division rules in different languages. As stated above the main universal principle of syllable division can be formulated as follows: a word is divided into syllables at the point of tension smallest degree in the articulating organs and, consequently, the smallest values of acoustic energy, is identical in all the syllabic languages as well as in English and Ukrainian.

A syllable may consist of only one vowel, but such cases are rare and usually the syllabic vowel in the syllable is accompanied by the so-called marginal consonants - the ones preceding or following central vowel of the syllable. The structure of syllables, especially those including the marginal consonants, is in the centre of interests of many scientists.

In most languages syllable-forming sounds are vowels and less often sonants. It refers to English and Ukrainian where not only vowels but some sonants may become syllabic under certain conditions. The English sonants [ n ], [1] become syllabic when they are at the end of a word and are not preceded by a vowel, e.g. garden, arrival, woollen.

The sonant [ m ] becomes syllabic in very rare cases, e.g. madam, film.
The final sonant [ n ] becomes syllabic in exceptional cases as a result of progressive assimilation when $[\mathrm{n}]$ is preceded by the backlingual consonants [k], [g], e.g.: bacon.

The sonants [w], [r], [j] are never syllabic in English.
There are too main types of syllables both in English and Ukrainian. Some linguists for scientific purposes suggested to single out more than two types of syllables, taking into consideration not only the final sound, but the number of consonants preceding the syllabic vowel or following it.

Thus, it was suggested to distinguish four types of syllables. They are:

1. Absolutely open (v), i.e. consisting of one syllable-forming vowel. For example: English or $[\mathrm{O}]$, Ukrainian $a[\mathrm{~A}]$.
2. Absolutely closed (cvc), i.e. consisting of a vowel, surrounded by consonants, e.g. English class, Ukrainian cmiл.
3. Partially open, shielded at the beginning (cv), i.e. consisting of a vowel with one or several preceding consonants, e.g. English sky, gay, Ukrainian ми.
4. Partially closed, shielded at the end (vc), i.e. consisting of a vowel with one or several following consonants, e.g. English ask, Ukrainian ad.

Syllable is a minimal integrated and integrating unit of speech. On the one hand the syllable is integrated i.e. composed of speech sounds. Speech sounds form and organize a syllable as a linguistic and speech unit. They are the base for the syllable. On the other hand the syllable itself is the base for one segmental unit (phonetic word) and all suprasegmental units, sensegroups, phrases, supraphrasal unities and suprasegmental unity of the highest level - speech.

Being composed of speech sounds, syllables preserve articulatory characteristics of speech sounds and their inherent acoustic characteristics the phonological length of vowels in English, the inherent intensity, fundamental frequency of informant structure of the vowels, etc.

But it should be taken into consideration that the features of the speech unit are not reflected unchanged in the integrated syllable; they may undergo some changes under different linguistic and extralinguistic factors. When the speech unit of a higher level is formed on the basis of a lower speech unit, a syllable retains the characteristics of a lower speech unit to some extent and acquires some characteristics of its own. The syllable may be called the baby of the language. Organized by speech sounds the syllable rises to its first higher level - the segmental level of phonetic word.

The child continues to grow and becomes stronger, and rises to a higher level - he begins to talk. Thus the syllable executes the following suprasegmental level of sense-group (syntagma), which is the first semantically and prosodically organized unit of speech.

The child grows on and on, and becomes a teenager. He becomes clever, his abilities and knowledge grow too and he can do some things himself. The syllable participates in organizing the next higher suprasegmental speech unit - a phrase.

The child becomes an adult. He becomes strong and solid. He can do his work professionally, he can create more complicated things. The syllable takes part in organizing supraphrasal unities - semantic groups of phrases united by sense.

At last the child reaches the top of his development and attains perfection. He is able to create the most complicated equipment and instruments, and operate them. The syllable achieves its main goal. It is involved in organizing the text - the highest unit of speech (fig. 1).


Fig. 1. The scheme of the syllable integrating function
The main rules of syllable division are general in English and Ukrainian; they are enumerated below:

Strong-end consonants (the end of the consonant is stronger than its beginning) at the beginning of a syllable both in English and Ukrainian, e.g.

The English sounds [p], [k] in the words part, keen.
The Ukrainian sounds [П'], [Т'] in the words пізно], тільки.
Strong-beginning consonants (the beginning of the consonant is stronger than its end) form the end of the syllable both in English and Ukrainian, e.g.

The English final [p], [k] in the words cap, peck, the consonant [p] and final $[\mathrm{n}]$ in the word napkin.

The Ukrainian [Ш], [P] in the word nowmap.
Strong-beginning/strong-end form (the so-called "two-peak" consonants) are met at the border between two consonants, between two syllables, e.g. dissatisfy; disserve; dissever; unnatural, etc.
"Two-peak" consonants also occur at the junction of words, e. g.
thin knife; wide deck, etc.
In Ukrainian two-peak consonants occur only at the junction of words. Examples are found in such Ukrainian words as: хліб бери; він ніс.

One of the regular characteristics in syllabic structure of English and Ukrainian is the following: consonants with a strong-end begin a new syllable. Consonants with a strong-beginning end a syllable.

In English a less sonorous sound is generally combined with a more sonorous one following it, e. g. idle; cable.

It has been demonstrated that the rules of syllable division in English and Ukrainian are numerous, but the peculiarities in the languages under discussion are much more frequent. The main ones in the problem of a word division into syllables are the following:

1. In words with a consonant between two vowels, the consonant usually joins the following vowel ( $\mathrm{CV}: \mathrm{CV}$ ) and thus, an open syllable is formed.

In English such a kind of syllable division is met very often in two-syllable words and in syllables with long monophthongs.

In Ukrainian a consonant between two vowels in a word joins the following vowel rather often, but not so frequently as in English, e.g.

English Ukrainian
father; батько;
reader; вimep;
never; півень.
2. In words with a vowel followed by two or more consonants.

In English words, when a vowel is followed by two or more consonants the point of syllable division is often between the consonants (vc:cc), e.g. insect; abstract; napkin.

In Ukrainianin the syllables of the word where the vowel is followed by two or more consonants the boundary is often between the syllables, but not so often as in English. Rather often the point a syllable division in Ukrainian occurs between the preceding vocalic centre and the following consonant, е.g. окремо; структура; функиія;
but: горки; прогресія; достовірність.
3. In sound combinations contrasting with their sonority.

In Ukrainian syllable division often lies between the sounds most contrasting in their sonority. Thus, in the words бігти, візник the syllable division is between $[I]$ and $[\Gamma],[T]$ and $[3]$ as the difference in sonority between them is greater than the one between $[\Gamma]$ and the following sound $[T]$ or between [3] and the following sonant [ H$]$.

Thus, in the Ukrainian word горки the syllable boundary lies between the vowel [O] and the consonant [P], i.e. the sound [P] begins a new syllable and therefore it has a strong-end. In the English word napkin the syllable boundary lies between the consonants $[\mathrm{p}]$ and $[\mathrm{k}]$. This means that $[\mathrm{p}]$ ending the first syllable, has a strong-beginning, while the following [k], beginning a new syllable, has a strong-end.

In such cases Ukrainians are apt to divide the English word into syllables in the wrong way, i.e. to pronounce [p] with a strong-end while in such cases it has a strong-beginning in English.

The distinctive characteristics in sound peculiarities that influence syllable division of the two languages are laid out below.

- In the Ukrainian language length of vowels is phonematically irrelevant. Ukrainian vowels may be prolonged in exceptional cases being in stressed or emphasized syllables.
- Voiced consonants at the end of the final syllables are not devoiced in English, while in Ukrainian they often become voiceless.
- English voiceless consonants [p, t, k] at the beginning of the initial syllables are aspirated. Aspiration as a characteristic feature of consonants does not exist in Ukrainian.
- English sounds are tenser. The English forelingual consonants are usually formed at the alveoli by the very tip of the tongue, the Ukrainian forelingual consonants are formed by the front part of the tongue, excluding the tip at the front part of the palate.
- The English [g] is a backlingual stop consonant while the Ukrainian $[\Gamma]$ is a pharyngeal constrictive consonant, etc.

In English and Ukrainian there exists a close connection of the sounds constructing the syllable, called cohesion. Consonants preceding and following the syllabic centre of the syllable adjoin it rather closely. But the cohesion of the following consonant and the preceding vowel is not so close in Ukrainian as in English.

Investigations of the syllabic theory and practical study of the peculiarities of foreign languages are pragmatically important. It is possible to determine the emotional state of the speakers due to difference in the cohesion of sounds within syllables of different languages. It is possible to determine the nationality of the speaker and to identify the speaker by syllable structure characteristics and sound articulation peculiarities.

Taking into consideration the above-mentioned the following conclusion can be made. The syllable is an integrated and an integrating speech unit. On the one hand it consists of speech sounds, on the other hand it is the base for all the other units of speech. It is creating the segmental speech unit - phonetic word and all the supra-segmental speech units - sensegroups, phrases, sub phrasal unities and the speech unit of the highest level - the text.

The main principles of syllable formation and division are universal, i. e. similar in all the syllabic languages. As to the rules of syllable formation and the division of words into syllables they differ in various languages.

It has been experimentally proved that syllables in Germanic and Slavonic languages are involved in different spheres - phonological, physiological, auditory. Dynamic models of syllabic structure have been elaborated.

Syllables as well as other phonetic phenomena are sensitive to sound quality, certain marginal consonants are perceived as "heavier" than others in many languages. This character is linked to a particular phonetic phenomenon in different languages, it remains stable and does not change in a language.

Contrastive analysis of English and Ukrainian syllables makes it possible to observe that the nature of the main principles of syllable formation and division are the same in the two languages. There exist some difference in the rules of correlation of the two components composing the total energy characteristic - intensity and duration, which defend upon the phonematic structure of the English and Ukrainian languages. There exist some specific features in the structure of syllables, in the rules of syllable division in English and Ukrainian. The energetic syllabic theory defines a syllable as an impulse of energy. The share of the two components of total energy - intensity and duration is different in English and Ukrainian and is closely connected with the phonematic system of the languages. According to energetic theory the boundaries between the syllables in a word and between the words are at the point of the minimal decrease of total energy [1].

There is no principle difference between the mechanism of syllable division according to the concept of muscular tension and the energetic theory - the boundary in both cases is at the energetically weaker point of the syllable chain being the result of the smallest muscular tension.

A thorough contrastive study of English syllables in comparison with those of the native language will help the Ukrainian learners of English to avoid mistakes and acquire perfect pronunciation without any accent.

## references and notes

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