T. A. Brovchenko, T. N. Yablonskaya

## CONTRASTIVE ANALYSIS OF SYLLABLES IN ENGLISH AND UKRAINIAN

В данной статье проводится контрастивный анализ слогов в английском и украинском языках. Сопоставляя слоги английского и украинского языков, авторы приходят к выводу, что сущность основных принципов слогообразования и слогоделения одинаковы в обоих языках. Различия обусловлены разной фонематической структурой английского и украинского языков, а также особенностями положения активных органов артикуляции при произнесении звуков.

Ключевые слова: слог, звуки, слогообразование, слогоделение, произношение.

У статті проводиться контрастивний аналіз складів в англійській та українській мовах. Зіставляючи склади англійської та української мови, автори доходять висновку, що сутність основних принципів складоутоворення та складоділення є однаковими для обох мов. Відмінності зумовлені різною фонематичною структурою англійської та української мов, а також особливостями положення активних органів артикуляції nid час вимови звуків.

Ключові слова: склад, звуки, складоутворення, складоділення, вимова.
In this article the contrastive analysis of syllables in English and Ukrainian is being carried out. Comparing English and Ukrainian syllables, the author arrives at the conclusion that the nature of the main principles of formation and division of syllables is the same in the two languages. The differences are determined by the phonematic structure specific features in the English and Ukrainian languages as well as by the peculiarities in the position of the active articulating organs in pronouncing sounds.

Key words: syllable, sounds, formation of syllables, division of syllables, sounds pronunciation.

Nowadays greater and greater attention is paid to the syllable in the practical study of foreign languages.

In studying pronunciation of a foreign language it is to be taken into consideration that the correct pronunciation of syllables is as important as
pronunciation of sounds. A syllable consists of sounds, but the syllable is the first undividable unit of speech.

Contrastive study of the syllables of the English and Ukrainian languages will help to understand the differences existing between syllables in English and Ukrainian to know special features of the formation of the syllables, the peculiarities of syllable division and will also help to avoid mistakes in a foreign language etc.

The syllable is a universal primary minimal undivided basic phonetic unit of speech.

This definition of the syllable is universal for all the syllabic languages.
Units of primary perception on sensory level are not speech sounds but syllables. The syllable in perception is a minimal undivided unit over time.

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 - sense-groups, phrases, subphrasal unities and the speech unit of the highest level - the text.

Syllables as well as other phonetic phenomena are sensitive to weight, many marginal consonants are perceived as "heavier" than others in many languages.

Weight is linked to the particular phonetic phenomenon in different languages, remains stable and is not changed from language to language.

The first attempts to examine syllables were made before our era by Ancient Greeks in connection with their interest in the problems of rhetoric and versification.

Experimental investigations of the problems of the nature of the syllable, its structure, the division of words into syllables appeared at the beginning of the 20th century due to the first laboratories of experimental phonetics opened in Paris, St. Petersburg and other countries and cities of the world. At present experimental investigations of the nature and structure of the syllable continued with the help of modern acoustic devices and special computer programmes.

Various theories of syllable formation and syllable division exist. One of the first was the so-called expiratory theory, according to which each syllable is accompanied by an uninterrupted act of exhalation. The experimental data showed that several syllables might be pronounced within one act of exhalation and the expiratory theory considered to be wrong because it was experimentally proved that in many cases two or more syllables were pronounced within one act of exhalation.

Rather spread was sonority theory, according to which the main feature of the syllable is sonority, the stressed syllable forms a peak of sonority. The variations of the sonority of the vowels in different in the word made it difficult to define the boundaries between the syllables.

The theory of muscular tension was elaborated by P. Roudet, M. Grammont and others and completed by L. V. Shcherba, according to whom sounds in connected speech are pronounced with alternative intensification of intensification and slackening of muscular tension. Each peak of intensification forms a syllable. L. V. Shcherba's concept about the three forms of the syllables helped to solve the problem of the syllable division.

One of the latest theories of syllabic formation is the energetic theory. According to this theory a syllable was defined as a single portion of energy [2:25], as a minimal portion of energy [3:17].

The energetic theory does not deny the theory of muscular tension. There exists a direct connection between the muscle tension of the organs of speech impulses of energy as any nerve and muscular process causes energetic process.

The energetic theory is rather widespread and acknowledged by numerous linguists, but still the nature of the syllable impulse was not quite clear and required further investigations.

In the second half of the 20th century phonetic experimental investigations applying electronic devices made it possible to affirm that syllables are created by a complex impulse of acoustic energy, a coordinated action of two components - intensity and duration [1:8]. Any of the components can change the volume of the total energy.

Experimental data proved that the main acoustic characteristic feature of the syllable was total energy - intensity over time.

The share of the two components of total energy - intensity and duration is different in English and Ukrainian as it depends upon the phonematic system of the language.

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.

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 as it is the result of the smallest muscular tension.

The main principles of syllable formation and division are universal, i. e. similar in all the syllabic languages but the rules of syllable forma-
tion and the division of words into syllables may be different in different languages.

Having affirmed positively the universal nature of articulatory mechanism of syllable formation and division, G. P. Torsuyev drew attention to the existence of language peculiarities in the sphere of phonematic structure of the syllables, in the set of the types and subtypes of syllables, in the rules of syllable division in different languages.

As stated above the main universal principle of syllable division is that a word in divided into syllables at the point of the smallest degree of tension of the articulating organs and consequently, the smallest values of acoustic energy, is identical in all the syllabic languages and in English and Ukrainian as well.

It is known that L. V. Shcherba's concept of three forms of consonants helped to realize practically the problem of syllable division [4,5].

Besides the main rules of syllable division being general for English and Ukrainian there exist some peculiarities in the division of words into syllables in each of the two languages.

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

The English sounds [p], [k] in the words party ['pR tl], keen [kJ n].
The Ukrainian sounds [ $\Pi^{\prime}$ ], [ $T^{\prime}$ '] in the words nізно [ ${ }^{\prime}$ 'IЗНО], тільки [Т'ІЛ'КИ].
The strong-beginning consonants (the beginning of the consonant is stronger than its end) form the end of the syllable both in English and Ukrainian.

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

The Ukrainian [Ш], [P] in the word nowmap [ПОШТАР].
The strong-beginning/strong-end form (the so-called "two-peak" consonants) are met at the border between two consonants, between two syllables.

Examples are found in such English words as:
dissatisfy [dls'sx tlsfal];
disserve [dls'sE:v];
dissever [dls'sevq];
unnatural [An'nx tSrql], etc.
"Two-peak" consonants also occur at the junction of words, e. g. thin knife [TIn 'nalf];
wide deck [wald 'dek], etc.
In Ukrainian two-peak consonants occur only at the junction of words.
Examples are found in such Ukrainian words as:
хліб бери [ХЛІБ БЕРИ];
він ніс [BIH HIC].
Consonants with a strong-end begin a new syllable.
Consonants with a strong-beginning end a syllable.
In English a less sonorous sound generally combines with a more sonorous one following it, e.g.
idle ['aldl];
cable ['kelbl].
The rules of syllable division are numerous in English and Ukrainian, but the exceptions are more numerous.

The main rules of the division of a word into syllables are the following:

1. In words with a consonant between two vowels, the consonant usually joins up with 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 also joins up with the following vowel rather often, but not so frequently as in English, e.g.

English
father ['fR Dq];
reader ['r] dq];
never ['nevq];

Ukrainian
батько [БАТ'KO]; вітер [BITEP];
півень [ПIВЕН'].
2. 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 ['In:sekt];
abstract ['x b:strx kt];
napkin ['nx p:kln].
In Ukrainian in 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 dividing the syllables in Ukrainian may be between the preceding vocalic centre and the following consonant, e.g.

окремо [ОКРЕМО]; структура [СТРУКТУРА]; функція [ФУНКЦ’ЈА];
but: горки [ГОРКИ];
прогресія [ПРОГРЕСІЈА];
достовірність [ДОСТОВІРН'ICT'].
In Ukrainian syllable division often lies between the sounds most contrasting in their sonority. Thus, in the words бігти [БІГТИ], візник [BIЗНИK] the syllable division is between [I] and [Г], [T] and [3] as the difference in sonority between them is greater than that between $[\Gamma]$ and the following sound [T] or between [3] and the following sonant [H].

Many students whose native language is Ukrainian often find it difficult to observe the rules of syllable division in English.

Thus, in the Ukrainian word горки [ГОРКИ] the syllable boundary lies between the vowel $[\mathrm{O}]$ and the consonant $[\mathrm{P}]$, i.e. the sound $[\mathrm{P}]$ begins a new syllable and therefore it has a strong-end.

In the English word napkin ['nx pkIn] the syllable boundary lies between the consonants $[p]$ and $[k]$. This means that $[p]$ 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: ['nx pkIn], i.e. to pronounce [p] with a strong-end while in such cases it has a strong-beginning in English.

1. In compound words as well as in words with prefixes and suffixes the pront of syllable division is between the national word of compounds, after prefixes and before suffixes both in English and Ukrainian, e. g.

English
teaspoon ['ti:spu:n];
tablecloth ['telblkIOT];
unknown [An'nVqn];
homeless ['hVqmiqs];

Ukrainian
самоскид [САМОСКИД];
теплохід [ТЕПЛОХІД];
нехристь [НЕХРИСТ’];
підкреслювати [ПІДКРЕСЛ'УВАТИ].

The point of separation of words into syllables depends to some extent to the quality of the adjoining sounds and the phonetic and grammatical structure of the language.

Learners of English should pay special attention to correct pronunciation of speech sounds within a syllable.

The length of English syllabic vowels at the end of an open syllable [E:, H, R , L ] as well as the vowel [J] should be obligatory, observed in English oral speech.

The English vowel [ x ] is pronounced as a long sound in the positions before a sonant or before a voiced consonant. Thus, positional length of the vowel [X] should be observed too.

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. The difference in the articulation of English sounds the syllable consists of should be observed. The position of the lips is different in English and Ukrainian. The lips in pronouncing English sounds are more tense and pressed to the teeth. Even rounded vowels are pronounced without protrusion of the lips.

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.

There exist some syllable structural differences in the English and Ukrainian languages.

There is a close connection between the sounds within the syllable.
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.

All the mistakes in the structure of the syllables, rules of syllable division, mispronunciation of sounds making a syllable, in the phonetic base of the foreign language, etc. lead to the appearance of the so-called accent.

Accent peculiarities in the pronunciation of the foreign language, by which it is possible to recognize a foreigner, appear under the influence of the articulatory base of the native language of the speaker. Most often accent is hidden in the peculiarities of pronunciation of syllables and the sounds they consist of.

Information about a foreign accent might be noticed in mispronunciation of sounds that do not exist in the native speech of the listener, e.g. the consonants [T, D], the vowel [E:]; pronunciation of long English vowel sounds [J], [E:], [H], [L ], [R ] as short vowels though the length of the vowels is phonematically relevant in English. Other equally important are often
peculiarities on the level of syllables which are not observed by the learners: the positional length of the English [x] before the nasal sonants and voiced consonants; the pronunciation of English constrictive sonant $[r]$ as a rolled consonant; absence of aspiration of English [p, t, k] at the beginning of stressed syllables and others.

Foreign accent is one of the main problems in teaching a foreign language. The most difficult task in learning pronunciation is to get rid of a foreign accent.

There are numerous cases when despite a good command of the foreign language and good pronunciation of the learner, the listener, whose native language is English, will catch a note of something foreign in the speech of a person, whose mother tongue is not English. In most cases accent is explained by the specific articulation base of the native language and is caused due to the errors in the structure of the syllables and violation the rules of syllable division, due to mispronunciation of sounds and sound combinations constructing the syllables.

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 characteristic features of the structure of the syllables and articulation of sounds the syllables consist of.

Contrastive analysis of English and Ukrainian syllables makes it possible to observe that the nature of the main principles of formation and division are the same in the two languages. There exist a difference in the rules of correlation of two components of the total energy - 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 the peculiarities of the position of the active articulating organs in pronouncing sounds, which constitute the syllables in English and Ukrainian.

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

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