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One of the problems in studying marginal surrounding of the syllabic centre is creating the universal scale of consonants.

Working at the theory of universal syllable structure Joan Hooper tried to find the solution in the existence of two types of marginal consonants; initial syllables, which are in the process of increasing intensity, and final consonants which are in the process of decreasing intensity. Therefore initial consonant is a strong segment and final consonant is a weak segment (Hooper J., 1972). N.S. Archangelskaya, who examined the structure of marginal consonants, also wrote that a number of facts testified that the initial position of consonants in a syllable is a stronger one while a final position is a weaker syllable position.

J. Hooper worked at a universal scale of consonants according to their force, beginning from glides and ending in plosive consonants, tried to construct the universal model of the syllable.

Even one step in creating the universal model of the syllable is very important and the value of J. Hooper's work should not be underestimated.

At present dynamic models of syllables have been worked out for a number of Germanic languages and so far that gives the possibility to control and correct pronunciation of the learners.

The syllable was the object of numerous dialect investigations. It was established that dialects are characterized by specific types of connection between the vowel of the syllable and the following consonant.

5.3. CONTRASTIVE ANALYSES OF SYLLABLES IN ENGLISH AND UKRAINIAN

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

Syllables are purely energetic speech units deprived of frequency characteristics except the inherited individual characteristics of syllabic vowels.

The impulses sent from the cortex cause alternative tension and relaxation of the speech organs: muscles, which in their turn cause the corresponding alterations in the acoustic energy, which is perceived by a human being as speech.

Taking into consideration close connection between the tension of the muscles and the acoustic energy which appear due to the tension of the articulation of the muscles during the process of speaking, it is possible to state that there is no principle difference between the mechanism of syllable division according to the theory of muscular tension and to the acoustic energetic theory. The boundary of syllable division is at the point of the weakest muscular tension and at the smallest degree of acoustic energy.

Thus, the point of syllable division between the first and the second syllables of a four syllable word of the structure CV|CV is between the glide of the first syllabic vowel and the beginning of the following consonant, e.g.

English: *better* [be | tq];

Ukrainian: *сало* [CA | JIO].

In a two-syllable word there may be two consonants between the vowels (CVC|CV). Syllable division is at the point between the weak end of the consonant, preceding the syllabic vowel of the first syllable, and the following weak beginning of the consonant of the second syllable.

The syllable division may occur between two vowels: CV|VC. In this case it is between a weak glide out of the preceding vowel of the first syllable and a weak glide of the second vowel.

The main principle of syllable division is universal and does not differ in different languages. But the rules of syllable division depend upon the phonetic structure of the language and therefore they may vary in different languages, in English and Ukrainian as well.

A general rising-falling form of the acoustic energetic impulse with a short rising part and considerably longer falling part becomes somewhat modified in different speech units due to the positions of the word stress in a phonetic word, due to the place of emphatic or emotional sentence stress in a sense-group or a phrase, etc.

At present the problems of syllabic theory continue to be elaborated.

Experimental investigations with the help of special computer programmes made it possible to examine the nature of syllables more thoroughly, to reveal the essence of cooperation of duration and intensity – components of the main acoustic feature of the syllable – the total acoustic energy.

Experimental data received on a vast statistically reliable material of oral speech on a number of Germanic languages proved that the syllable is realised in different spheres: phonological, physiological (articulating, auditory) and acoustic.

Articulatory and acoustic characteristics of a syllable ensure its perception in oral speech.

Syllable in perception is a minimal undividable perceptual unit over time. The results of the perceptual analysis, taking into consideration the time of reaction, connected with the perception of a syllable and its parts, made it possible to assert the units of primary perception on sensory level are not phonemes but their combinations – syllables.

Elaboration of syllabic models with the support of visual and auditory aspect made it possible to control and correct the pronunciation of the learners on the level of syllables.

Elaboration of dynamic models of syllabic structures was necessary for the training of syllables and the succession of syllables with the help of technical means of education.

Linguists have long observed that many phonematic and phonetic phenomena are sensitive to the inherent weight – some syllables are treated as heavier in weight than others (Jacobson R., 1931; Allen F., 1973 and others).

Thus, in many languages closed syllables (CVC) and the syllables containing long vowels (CV:) as well as syllables with many marginal consonants in its structure (CCVCC) are perceived as heavier than open syllables with short vowels, than syllables having one or two marginal consonants.

M. Gordon argued against the standard assertion that phonetic weight criteria varied from language to language. Survey of weight-sensitive phenomena showed the very opposite. Weight criteria are often universal for different languages and non-universal for different processes in a given language. For example, there exists a difference between weight-sensitive phenomena of English stress system and tone system. Several examples given in recent literature, showed that peculiarities of syllable and tone weight are the same in many languages.

A rather widespread idea that the phonetic weight is specific in different languages and is not linked to a definite phonetic process proved to be wrong. As a result of extensive typological survey of syllabics of approximately four hundred languages made M. Gordon to suggest that weight is not changed from language to language, as it was predicted in most contemporary theories.

Weight is more closely linked to the particular phonetic process in different languages.

Phonology and phonetics play a role in cross-linguistic variations in weight criteria.

The nature of weight is connected with the syllable auditory loudness, which in its turn is an acoustic stimulus of intensity over time, i.e. total energy, which is the main acoustic characteristic feature of a syllable.

The survey of some theories of syllable production and division given in the book is not exhaustive. Though many theories exist not all the problems of syllabic theory are solved.

Having examined various theories of syllable formation and production R.K. Potapova came to the conclusion that all the diversity of conceptions might be divided into two main types. The explorers of the first group define the syllable in the terms “part” – “a single whole” or “element” – “structure”. They analyze syllables from the sounds they consist of to the syllable as a whole, as a structured unit of speech, i.e. from bottom to top. The representatives of the second group analyze syllables from the syllable as a whole, as a structure and proceed to elements, the sounds the syllable consists of, i.e. from top to bottom.

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