

CHAPTER 5

SYLLABICS

5.1. INTRODUCTION

The syllable is a primary minor basic unit of speech. Being joined with each other, speech sounds serve as structural material, as “bricks” for syllables. A syllable is a sequence of speech sounds joined together to form a solid undividable stable primary speech unit of segmental level.

In every human language oral speech can be divided into syllables. The first speech unit pronounced by a baby is a syllable. In any language children and adults can divide speech into syllables and perceive them.

The central part of the syllable is a pitch or syllabic sound.

Pitch sounds are syllable-forming (syllabic) sounds, all other sounds are non-syllabic. The capacity of a sound to form a syllable depends mainly upon the degree of its sonority.

A.L. Trakhterov states that a primary condition, necessary for the formation of a syllable, is the presence of a tonic element, i.e. a vowel or a stable sonant.

The syllable-forming capacity of the tonic element depends upon the joint action of three heterogeneous, but mutually connected factors. They are: width of the air-passage, the intensity of the vibration of the vocal cords and the duration of the optimum phase (Трахтеров А.Л., 1956).

The tonic element of the syllable, its nucleus is usually a vowel in most languages. But in some languages under some conditions the nucleus may be a sonant too. A syllable may consist of a single vowel or of a vowel and consonants. Consonants preceding or following the syllabic vowel are called marginal. The number of marginal consonants may be different, but in most languages it is from one to seven.

The vowel is the main syllable-forming element of the syllable. The presence of consonants is not essential, a syllable may exist without consonants, and the presence of syllabic vowel or other vocalic element is the only condition necessary

for the existence of a syllable. Consonants may precede or follow the syllabic vowel. The cohesion between the vowel and the syllables is rather close.

A syllable taken separately has no meaning of its own, but when syllables are in words, which have elementary meaning, denoting things, actions, qualities, etc., syllables become potentially meaningful (Торцыев Т.П., 1950).

A syllable perception is an active process of decoding of a speech wave.

In the process of perception the syllable is the field of tension of sounds segments, which is treated independently of their semantic significance. Speech perception is an active process of a speech wave detecting which is determined by articulatory base and linguistic experience of the listener (Потапова Р.К., 1997).

The results of psycho- and neurolinguistic as well as neuropsychological investigations made it possible to differentiate the two types of syllables mentioned above – open and closed.

From the phonological point of view the open syllable may fall under the category of the main type of syllables (Потапова Р.К., 1997).

As stated above the syllable is a complex psycholinguistic, psychophysiological and acoustic process.

Acoustically a syllable is an impulse of energy due to the increase of the organs of speech muscle tension and the tension of the muscles between the ribs with the corresponding articulation of sounds as a result of psycholinguistic and neurolinguistic processes.

The main acoustic parameter of the syllable is the so-called total energy (W_{tot}) – a joint action of two components – intensity and duration. The share of each component of total energy depends upon the phonetic structure of the language and may differ in different languages, though the main acoustic parameter – the total energy remains unchanged in all the syllabic languages (Бровченко Т.А., 1971).

A syllable may consist of only one vowel, but such cases are rare and usually the syllabic vowel in the syllable is accompanied by consonants – preceding or following central vowel of the syllable. Such consonants are called marginal.

The structure of syllables, especially of the marginal consonants, is in the centre of interests of many scientists (Torsuch V.P., Zlatoustova L.V., Bondarko I.V., Gordina M.U. and many others).

In most languages syllable-forming sounds are vowels and less often sonants.

In English not only vowels but some sonants may become syllabic under certain conditions. The English sonants [ŋ], [l] become syllabic when they are at the end of word and are not preceded by a vowel, e.g.

	<i>Syllabic</i>	<i>Non-syllabic</i>
garden	[ˈgɑ:dŋ]	[ˈgɑ:dqŋ]
arrival	[qˈrɑlv]	[qˈrɑlvq]
woollen	[ˈwu:lŋ]	[ˈwu:lqŋ]

The sonant [m] becomes syllabic in very rare cases, e.g.

	<i>Syllabic</i>	<i>Non-syllabic</i>
madam	[ˈmɔdm]	[ˈmɔdqm]
film	[fɪlm]	—

The final sonant [ŋ] becomes syllabic in exceptional cases as a result of progressive assimilation when [ŋ] is preceded by the backlingual consonants [k], [g], e.g.

English: bacon [beɪkŋ].

The sonants [w], [r], [j] are never syllabic in English.

There are two main types of syllables both in English and Ukrainian. Open syllables are those, which end in a vowel; close syllables are those, which end in a consonant, e.g.

Open syllables

<i>English</i>	<i>Ukrainian</i>
or [L], more [mɔ:]	а, у, ця, ва га, іти
artificially [R tɪ ˈfɪ Sɪ ɪl]	

Close syllables

<i>English</i>	<i>Ukrainian</i>
art [Rt]	ок ремо, об щити, факт
mistress [ˈmɪs trɪs]	
objective [Pb ˈGek tɪv]	

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 preceding or following the syllabic vowel consonants.

Thus, it was suggested to distinguish four types of syllables instead of two – open and close. They are:

1. Absolutely open (v), i.e. consisting of one syllable-forming vowel. For example: English *or* [L], Ukrainian *a* [A].

2. Absolutely closed (cvc), i.e. consisting of a vowel, surrounded by consonants, e.g. English *class* [klɪRs], *shame* [ʃeɪm]

3. Partially open, shielded at the beginning (cv), i.e. consisting of a vowel with one or several preceding consonants, e.g. English *sky* [skaɪ], *gay* [geɪ].

4. Partially closed, shielded at the end (vc), i.e. consisting of a vowel with one or several following consonants, e.g. English *ask* [ɹsk] (Потапова Р.К., 1997).

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, sense-groups, 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 taken absolutely into the integrated syllable and 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.

The syllable uses the following suprasegmental level of sense-group (syntagma), which is the first semantically and prosodically organized unit of speech.

The child grows and grows 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. 5.1).

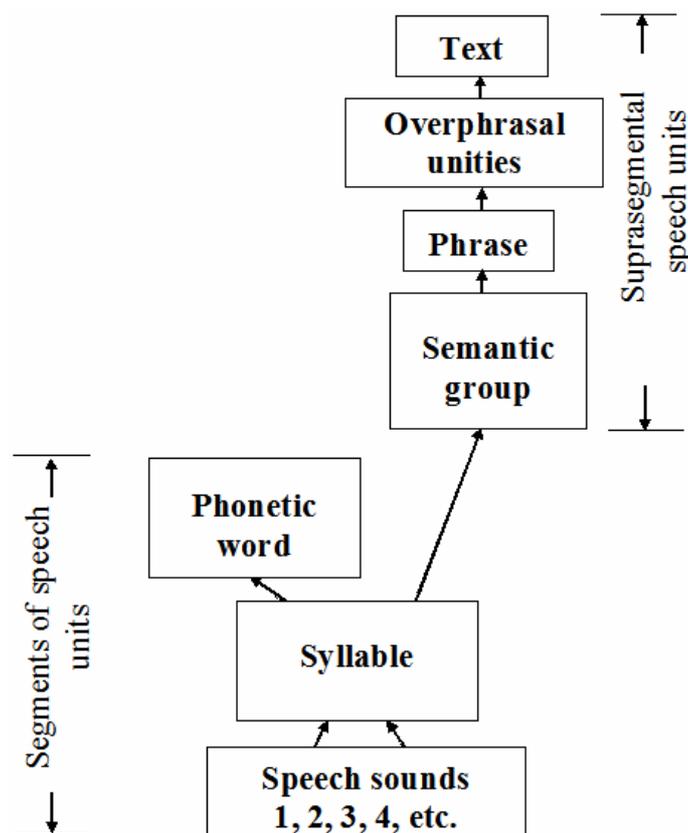


Fig. 5.1. The scheme of the integrating function of the syllable