

Lecture 4. The Syllable

- The Functions of Syllables in English.
- Theories on Syllable Formation and Division.
- The Structure of Syllables in English.

Words are articulated in syllables.

In phonetics, the **syllable** is a **group of sounds** that are pronounced together. The syllable is one or more speech sounds forming **a single uninterrupted unit of utterance** which may be a commonly recognized subdivision of a word or the whole of the word.



The problem of the syllabic structure of words has two aspects:

1) syllable formation,

2) syllable division/separation.

- **Articulatorily**, the syllable is the minimal articulatory unit of the utterance.
- **Auditorily**, the syllable is the smallest unit of perception: the listener identifies the whole of the syllable and after that the sounds which it contains.
- **Phonologically** it is a structural unit which consists of a sequence of one or some phonemes of a language in numbers and arrangements permitted by the given language. Phonologically it performs **three functions**.

The constitutive function

Syllables constitute words through the combination of their stress- loudness, duration-length, pitch-tone.

The distinctive function


The difference in the place of a syllabic boundary differentiates the meanings of the words and phrases.

E.g. *a 'name - an aim; kids 'kin - kid 'skin; my 'train - might 'rain*

The identificatory function

The listener can understand the exact meaning of the utterance only when the correct syllabic boundary is perceived.

E.g. *peace talks* - *pea stalks*



There have been suggested several **theories** to explain the **mechanism of syllable formation** and **syllable division** in different languages.

The chest pulse or breath puff theory

The first theory in chronological order which has now been **practically abandoned**.

According to this theory, syllables are formed by *breath-puffs*. At present this theory is considered as **not scientifically grounded**; it has been proved experimentally that speakers take a new breath at the end of a syntagm and **no increase of breath force necessarily accompanies every syllable**.

The relative sonority theory or the prominence theory

It is based upon the fact that each sound has a **different carrying power** which is based on their **sonority**. The sonority of a sound is its **relative loudness** compared to other sounds, everything else (pitch, etc.) being equal.

The creator of this theory, the Danish linguist **Otto Jespersen**, has proved that the least sonorous sounds which have the least carrying power, are those for which the mouth is closed (voiceless oral stops), while the most sonorous sounds are those for which the mouth is wide open (low vowels).

All other sounds are ranked in between these two extreme points of the **sonority scale** (from the highest degree to the lowest):

- Low vowels (a:, o, ...).
- High vowels (i:, i, ...)
- Semivowels (j,w)
- Liquids (l, r)
- Nasals (m, n, ŋ)
- Fricatives (voiced) (v, z, ð)
- Fricatives (voiceless) (f, s, θ)
- Oral stops (voiced) (b, d, g)
- Oral stops (voiceless) (p, t, k).

By this theory the syllable is treated as **the combination of a more sonorous sound with a less sonorous one**. All the sounds with the greatest degree of sonority (*vowels and sonorants*) are at the **peak of the syllable**, by which the syllable may be marked as a unit, because the **rest of the sounds surrounding the peak cling to it**.


The sonority theory helps establish the number of syllables in a word, but it's difficult to find the syllable boundary using this syllable as it doesn't explain the mechanism of syllable division.

The muscular tension theory

It was put forward by the French linguist **Michaëlle Grammont** and supported and further developed by the Russian linguist **Lev Volodymyrovych Scherba**.

Academician Lev Volodymyrovych Scherba explained syllable formation by muscular tension impulses and three types of consonants.

In speaking, muscular tension impulses follow one another. Each impulse has its strongest point (*the peak of prominence*), and its weakest prominence (*the valley of prominence*). Valleys of prominence correspond to points of syllabic division.



The end of one syllable and the beginning of the next one can be ascertained by determining the **type of consonants** which take part in forming the syllables.

Consonants may be pronounced:

- **initially strong** – the beginning of a consonant may be more energetic, while the end may be weaker;
- **finally strong** – the beginning of the consonant may be weak, and its end -more energetic;
- **geminate** or **double** – both the beginning and the end are energetic with a weakening of muscular tension in the middle, acoustically, they give the impression of two consonants.

The more energetic part of a consonant is attached to a vowel, so that initially strong consonant occurs at the end of a close syllable, while finally strong consonant occurs at the beginning of a syllable.

This theory again does not give a complete explanation of the syllable division mechanism.

Different languages have different kinds of syllable structure. In English the syllable is formed:

- By any vowel alone or in combination with one or more consonants – not more than three preceding and not more than four following it,
e.g. are /ɑ:/, street /stri:t/, sixths /sɪksθs/.
- By word final sonorants immediately preceded by a consonant, e.g. rhythm /'rɪðm/,
garden /'gɑ:dən/.

The English sonorants /j/ and /w/ are never syllabic since they are always syllable-initial.

Syllable

Rhyme

Onset

Nucleus/Peak/Center

Coda

/pl

ɑ:

nt/

The structure of English syllables can be summarized as follows:

- Many syllables have one or more consonants preceding the **nucleus**. These make up the **syllable onset**: *me, so, plow*.
- Many syllables have one or more consonants, following the nucleus. They make up the **syllable coda**. They are traditionally known as closed syllables: *cat, jump*.
- The combination of nucleus and coda has a special significance, making up the **rhyming property** of a syllable.

Structural types of syllables are:

- Fully open V – or, are
- Fully closed CVC – fat, CCVC – place,
CVCC – fact, CCCVCC – street,
CVCCC – facts, CVCCCC – sixths
- Covered at the beginning CV – too, CCV – spy,
CCCV – straw
- Covered at the end VC – on, VCC – act,
VCCC – acts

The structure of English syllables can be summarized as follows:

- Many syllables have one or more consonants preceding the **nucleus**. These make up the **syllable onset**: *me, so, plow*.
- Many syllables have one or more consonants, following the nucleus. They make up the **syllable coda**. They are traditionally known as closed syllables: *cat, jump*.
- The combination of nucleus and coda has a special significance, making up the **rhyming property** of a syllable.

Syllables can be also designated by:

- **the position in the word**

from the beginning – **initial, medial, final**

from the end – **ultimate, penultimate, antepenultimate**

- **the position in relation to the stress**

pretonic, tonic, posttonic

Any syllable that is not tonic is called **atonic**.

tremendous	/trə	'mend	əs/
initial		medial	final
antepenultimate		penultimate	ultimate
pretonic		tonic	posttonic