

7. Phonetics and phonology – basic units. Transcription.

The concrete auidial manifestation of language is speech. Speech can be broken down into minimal segments called speech sounds.

Speech is a stream of sounds which form a continuum. When we listen to the speech continuum we notice that some segments of the continuum sound indetical and they repeat in different places of the continuum.

e.g. Tono nos

A speech sound is a unit of speech having certain articulatory, acoustic, and auditory characteristics. Speech sounds are only those vibrations, which constitute a system of elements which can be organized into higher units called words.

Can be grouped into two main groups: vowels and consonants.

A vowel

- is a sound in the production of which there is no obstruction to the flow of air as it passes from the lungs.

A vocoid

- is a vowel in its phonetic sense without considering any functional criteria.

A consonant

- is a speech sound produced by a partial or complete obstruction of the air stram by any of various constrictions of the speech organs.

A contoid

- is a consonant in its phontec sense without considering any functional criteria.

When we investigate the concrete speech sounds of a given language from the point of view of their function, we find out that only a certain limited number of sound elements can cause a change in meaning of words.

The sounds that can change the meaning of the word are called **phonemes**. A phoneme is then a set of speech sounds with the same distinctive function in a given language. It's the smallest constructive linguistics unit which may bring about a change in meaning. They are abstract units. 2-nd degree abstraction.

Allophones – can be defined as a group of phones with certain very similar articulatory, acoustic and auditory characteristics. Made from purely material point of view. 1-st degree of abstraction. They are not unique – can be repeatedly reproduced.

Phonetics

- is a branch of linguistics concerned with the study of speech sounds and their reproduction, transmission, reception, description, and representation by written symbols.
- non-lingustic phonetics – concerned with physiologica + acoustic + psychological fenomenan and processes
- the basic elements of the phonetic analysis are both *phones and allophones*.

In phonetic research, **two basic methods** can be found:

a. subjective – based od direct observation carried out by our senses, mainly eyesight and hearing.

b, experimental – make use of specially designed apparatuses (laryngoscope, X-ray, tape recorders, computers)

Phonetics can be divided into 3 principal sub-branches:

1. *articulatory (organic) phonetics* – is concerned with:

- a, the organs of articulation
- b, the production of speech sounds
- c, the description and classification of speech sounds

2. *acoustics* is concerned with:

- a, the acoustic properties of speech sounds – it analyzes sound from the point of view of fundamental frequency, intensity, wave structure (quality) and duration (quantity)
- b, the transmission of speech sounds – it describes how sound waves are transmitted between the mouth and the ear
- c, the description and classification of speech sounds – it describes and classifies the sounds from the point of view of their acoustic properties, i.e. fundamental frequency, intensity, wave structure (quality) and (duration)

3. *auditory (organic) phonetics* is concerned with:

- a, the reception and analysis of speech sounds – it describes how the sound is received by the ear, how it is further modulated and processed by the organs of hearing, and how it is analyzed in the listener's brain
- b, the anatomical and physiological study of the ear – it describes the structure and the function of the ear
- c, the description and classification of speech sounds – it describes and classifies the sounds from the point of view of their auditory perception, e.e. pitch, loudness, auditory impression (quality), and length (quantity).

Phonology

- is a branch of linguistics concerned with the classification of speech sounds from the functional point of view. It studies the abstract sides of sounds of language.
- phonology is concerned with language as a system of abstract elements – **phonemes**, while phonetics deals with the formal representations of concrete sounds – **allophones**, and the concrete sounds themselves – **phones**.

The smallest unit of phonology is the *phoneme*.

Methods of Determining Phonemic Inventories

- phonemic inventory is a set of phonemes found and used in a particular accent and can be determined through:

A, *minimal pair test*

- to determine whether a sound is a phoneme we must find such a word, in which the replacement of the original speech sound by our investigated sound would change the meaning of that word, and we would produce a minimal word-pair:

Cut /c^ht/ - gut /g^ht/

B, *commutation test*

- we look for a set of minimal word-pair in such a way that one phoneme is replaced, if possible, by all phonemes of a given accent:

/p/ contrasted with other phonemes

/p/ - /k/ :par / pɑ:/ - car/kɑ:/

/p/ - /m/ : seep /si:p/ - seem /si:m/

Distinctive features

- is one of the approaches, which originated in the Prague School of linguistics. It is based on the principle that phonemes, though still minimal segments of languages, are not their minimal elements.

The Definition of Transcription

- one of the main problems of the English pronunciation is the fact that the elements of written language – letters, do not correspond to the elements of the spoken language – sounds.

The symbols used most often were the ones taken directly from the Roman alphabet, such as t, d, k, g, m n, l, etc. The rest of the symbols were either invented, taken over from other alphabets, or made up by a combination of the symbols. This whole range of symbols came to be called the **phonetic alphabet**.

Transcription is a special written form of language, where one written element /symbol/ represents one spoken element /sound/, or the abstract representation of the spoken element /phoneme/. It's a method of writing down speech sounds in a systematic and consistent way.

We distinguish two types:

Phonemic Transcription

- is a method of using a system of symbols which represent the set of phonemes of a particular language, following the rule 'one phoneme – one symbol'.
- phoneme transcription symbols are enclosed in slant brackets / /

Simple phonemic transcription follows these principles:

1. the transcription reflects a functional point of view
2. The minimum possible number of symbols is used
3. using symbols without diacritics
4. long vowels differ from short vowels only by a length mark /the differences in quality are not shown/

/a/ cut

/a:/ far

/ai/ eye

Comparative Phonemic Transcription

- english vowel-pairs do not differ only in length, but also in quality.

- symbols are based on the International Phonetic Alphabet = IPA

- follow this principles:

1. the transcription reflects a functional point of view
2. the minimum possible number of symbols is used

3. using symbols without diacritics
4. long vowels differ from short vowels only by a length mark and different symbol, which reflects different quality.

/ʌ/ cut /ɑ:/ far /a/ eye

The difference between simple phonemic transcription and comparative lies only in the fact that comparative uses, in addition to the length mark, a different symbol for each vowel, which indicates that English vowel-pairs differ not only in length, but also in quality.

Allophonic Transcription

- is a method of using a system of symbols and diacritics to represent the concrete speech sounds produced by a speaker of a particular language.
- we transcribe speech sounds – allophones.
- allophonic transcription symbols are enclosed in square brackets []

Broad Allophonic Transcription

- represents on extreme of allophonic transcription, it is the most simple allophonic transcription, with little detail.
- it represents the actual articulated sounds.
- it is based on these principles:
 1. the transcription reflects a formal point of view
 2. the minimum possible nr. of symbols is used
 3. we use the standard, simple and most frequent IPA symbols
 4. the symbols are without diacritics

Narrow Allophonic Transcription

- is the most detailed sort of allophonic transcription
- it is based on these principles:
 1. the transcription reflects a formal point of view
 2. we use as many symbols as necessary
 3. the symbols are modified by diacritics

8. Physiological and acoustic aspects of speech.

The organ which we use in communication are called organs of articulation or articulators, and they can be divided into **four main groups**:

A, respiratory organs / lungs, trachea/

B, phonatory apparatus /vocal folds/

C, resonators /pharyngeal, oral and nasal cavities/

D, modulating organs /mandible, lips, teeth, tongue, alveolar ridge, palate, uvula/

Respiratory organs

- the main source of energy for the production of the speech sound comes from the lungs. Depending on the way the air is released from the lungs, we distinguish between these airstream mechanism.

1, pulmonic – use the energy coming from the lungs

A, egressive – the airstream is pushed out from lungs

B, ingressive – the airstream is breathed in /hí/

2, non-pulmonic – clicks

Phonatory apparatus

- within larynx there are two thick flaps of muscle which look rather like a pair of lips and they can be brought to be together or parted through muscular tension = this organ is called the vocal folds.

- the opening between the vocal folds is known as the glottis.

- the glottis can assume these different positions of openness:

a, wide apart – the glottis is open. This occurs during breathing and when producing voiceless consonants.

b, loosely together – the glottis is slightly opened. Occurs during the production of the voiceless glottal fricative /h/.

c, loosely together and vibrating – the glottis is slightly opened and the air is passing through it causes vibration. All voiced sounds are produced this way.

d, tightly closed – the glottis is firmly closed. We produce glottal stop.

Resonators

- the airstream coming from the lungs can leave the pharynx in one of these 3 ways.

a, the soft palate is lowered slightly and the air escapes both through the oral cavity and nasal cavity – sounds produced in this way are called nasalized sounds → e.g. french vowels

b, the soft palate is lowered and the air escapes through the nose only because there is a complete obstruction made somewhere in the mouth – sounds are called nasal → e.g. English /m, n, ŋ/

c, the soft palate is raised and the air escapes only through the mouth. The sounds are called oral → all English sounds, except of nasal consonants.

Modulating organs

The passive modulating organs:

- *teeth* – made with the tongue touching the front teeth = dental sound / f, v/

- *alveolar ridge* – between the top front teeth and the hard palate = alveolar sounds /l, t, d, n, s, z/
- *hard palate* – between the alveolar ridge and the soft palate = palatal sounds /j/

The active modulating organs

- *tongue* – has five parts /tip, blade, front, back, root/
 - the muscular tension of the tongue is an important factor in the articulation of speech sounds. According to this factor: vowels are divided into tense (/i:/, /u:/ etc.) and lax (/ɪ/, /ʊ/ etc.)
- consonants are divided into fortis (/p/, /t/ etc.) and lenis (/b/, /d/ etc.)

- *mandible* – can influence the openness of speech sounds
- *lips* – can be pressed together = bilabial (b,p,m)
 - sounds made by lips touching the teeth = labiodental
- *soft palate or velum* - determine the quality of sounds (oral, nasal), produced by the tongue touching the velum = velar sounds
- *uvula* – sounds formed by a vibration of the uvula against the back of the tongue = uvular

Acoustic Aspect of Speech

Sound waves

- is the wave created by compressing and expanding the air particles carrying sound
- when the air comes out of the oral cavity, the vibration we hear can be of two types:

- a, regular /periodic/ vibration
- b, irregular / aperiodic/ vibration

Regular vibration

- is produced by the vocal folds, providing that they are vibrating at a constant frequency and with constant intensity. Such periodic vibration manifest itself as a periodic wave.
- periodic waves consist of wave patterns that periodically repeat themselves. These waves can be of 2 types:

1. *simple* → relatively rare, almost non-existent in the domain of naturally produced sounds. Can be shown as simple sine waves.
2. *complex* → wave in which several sine waves are combined into one single wave. Produced by the vocal folds.

Irregular vibration

- manifests itself as an aperiodic wave. Aperiodic waves don't show a regular, periodic pattern. They are composed of a large nr. of sine waves of different frequency and intensity and there is no repetition of any pattern, no regularity.

All sounds produced during speech consist of complex periodic and/or aperiodic waves.

The sounds which consist of periodic waves are called tones, the sounds which consist of aperiodic waves are called noises.

1. vowels and sonorants /m, n, ŋ, l, r, j, w, ŋ/ are produced by regular vibration – tones
2. voiced obstruents /b, d, g, dz, v, z, δ, z /are produced by both regular and irregular vibration – tones + noises

3. voiceless obstruents /p, t, k, ts, f, θ, s, z, h/ are produced by irregular vibration only
- they consist of noises only

Acoustic Properties of sounds.

- every sound can be examined from the point of view of these 4 acoustic properties:

1. frequency

- technical term and it refers to the nr. of complete repetitions /cycles/ of variations in airpressure occurring in one second. It is the nr. of cycles that occur in one second. The shorter the cycles, the higher the frequency. The unit of frequency is the Herz – Hz. The human ear is capable to hearing from 20 Hz to 20 000 Hz. A male voice may have an average pitch level of about 120 Hz. This means that in a male voice there are 120 complete cycles of compressing and expanding of the air particles in one second because the vocal fold make 120 complete opening and closing movements in 1 sec.
Pitch is a listener's subjective perception of the height of the tone. The important factor is the pitch range of individual speaker.

2. intensity

- is the amount of energy which is carried by a sound wave. The intensity is usually measured in decibels which is abbreviated to dB. Intensity relates to amplitude of vibration. The bigger the amplitude of a wave, the higher the intensity. Intensity is the term used in acoustic phonetics and it corresponds to loudness, which is an auditory term.

3. quantity /duration/

- is the duration of the vibration of a particular sound. Duration is an acoustic term. In auditory phonetics, it corresponds to length.

We have 2 categories of length:

- a, *absolute phonetic duration*, which is a measurable property
- b, *functional phonological /linguistic/ length*, which can bring about a change in meaning of the word.

4. quality /wave structure/

- depends on many factors. When vocal folds vibrate, they produce a complex, but regular, vibratory motion. The result of this vibration is a glottal tone /it is called glottal because it is formed in glottis/. The glottal tone is a complex waveform.

A spectrogram – is a graphical analysis of a sound. It's a picture of a complex waveform decomposed into a set of simple sine waves with different frequencies and amplitudes.

Auditory Aspects of Speech

- the incoming signals are first received by the ear. The main function of the ear is to collect aural stimuli, to analyze them partially, and to transmit them to the brain for further processing. It is mainly the left hemisphere of the brain that is responsible for controlling our language functions- more specifically there are 3 main areas:

1. *Wernicke's area* – responsible for our understanding of the received signal. The signal is broken down into the smallest functional units of speech – phonemes, and then reconstructed into higher units – syllables, words, sentences..

2. *Broca's area* – here the reply to the original signal is formulated and constructed into words.

3. *Motor area* – the formulated and constructed signal is sent to here. It is responsible for the actual physical articulation of the reply.

One of the problems in the sound recognition is the fact that a listener's analysis of vocal stimuli is conditioned by the sound inventory of his own language. An English speaker, for instance, is accustomed to a complex vowel system consisting of twelve vowels. Therefore he is perfectly capable of distinguishing between words *set* and *sat*. A Slovak listener, however, who does not have the sound /æ/ in his inventory, is likely to put it into the category of some other, acoustically similar sound, e.g. /a/ or /e/.

9. English vowels (monophthongs, diphthongs). Basic differences between Slovak and English.

Vowel is a sound in the production of which there is no obstruction to the flow of air as it passes from the lungs.

We have two main types:

- *pure v.* = *monophthongs*

- *gliding v.* = *diphthongs*

Monophthongs

- is a term used in phonetic classification of vowel sounds on the basis of their manner of articulation: it refers to a vowel (a pure vowel) where there is no detectable change in quality during a syllable.

In production of diphthongs there is a noticeable change in the quality, that is, there are two recognizable vowel sounds in a diphthong.

Definition and classification of vowels

Phonetic definition:

A vowel is also defined as a speech sound produced by the relatively free passage of breath through the larynx and oral cavity. They are voiced and are oral resonant sounds.

Phonological definition:

Vowels are those units which function at the center of syllables.

Description of vowels can be done according to:

1, the length of the vocal fold vibration

a, short

b, half-short

c, long

2, the position of the soft palate

a, oral – when the soft palate is raised

b, nasalized – when the soft palate is lowered

3, the shape of the lips (or lip-rounding)

a, rounded /u:/

b, spread /i:, æ /

c, neutral /ɪ, e /

4. the part of the tongue which is raised

- according to the horizontal movement of the tongue

a, front

b, central

c, back

5. the position of the mandible and the height of the tongue

- the mandible, or lower jaw, can assume different degrees of openness. Based on the degree of openness, we distinguish four different vowel types:
 - a, close /i:/
 - b, close mid / ɪ: /
 - c, open-mid /e /
 - d, open / ɛ: /

6. the muscular tension of the tongue

- a, tense
- b, lax

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English: has 12 different tongue positions

Slovak: only 6 tongue positions – Slovak speaker normally distinguishes and uses only 5) / æ/ is not normally stressed)

Cardinal vowels

- devised by Daniel Jones
- are a standard reference system, and people being trained in phonetics have to learn to make them accurately and recognize them correctly. With cardinal vowels you are learning about the range of vowels that the human vocal apparatus can make, and also learning a useful way of describing, classifying and comparing vowels.

Cardinal vowels can be divided into

1. *primary cardinal vowels* – they are extremes of vowel quality – they sound strange and exaggerated
2. *secondary cardinal vowels* – can be made by alternating the primary cardinal vowels in terms of lip rounding.

The length of English Vowels

Phonologically we have:

1. short v.
2. long v.

sit – seat /ɪ - i:/ don – dawn /ɒ- ɔ: /
cut – cart /ʌ - ɔ:/ bet – bat /e -æ/

Special attention should be paid to the sound / æ/ which, compared to the length of the rest of English vowels, is sometimes classified as neutral, that is, neither short nor long.

Phonetically:

The real length of English vowels depends on the type of sounds following them.

We have 4 types:

A, voiceless consonants decrease the length of short and long vowels:

s.v. = sot [sɒt] l.v. = sort [sɔːt]

B, voiced consonants do not influence the length of short and long vowels

s.v. = sod [sɒd] l.v. = sword [sɔːd]

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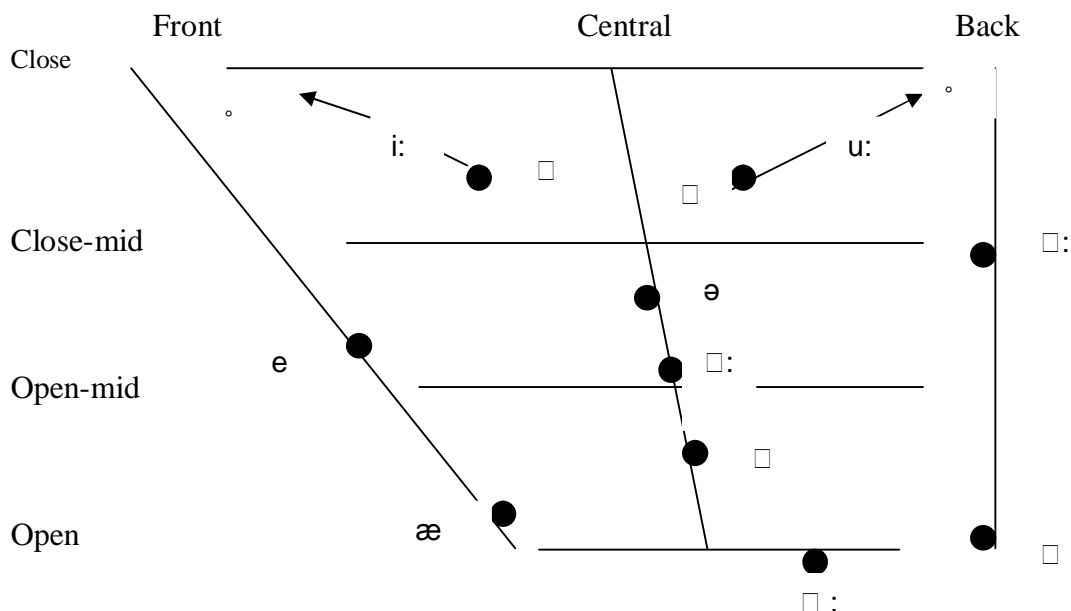
Short vowels are never found in the word-final position in stressed syllables. There is no such word in English, that would end with / æ / or / ɪ:/ , or any other short vowel.

In Slovak: following consonant doesn't influence the length of vowel. We distinguish between two lengths, whether phonologically or phonetically.

The total duration of the short vowel + a voiced consonant equals the total duration of the short vowel + a voiceless consonants. The same applies to long vowels.



The Description of English Distinctive Vowels



Vowel /ɪ/

example: in, pin, happy

- is pronounced with a part of the tongue nearer to centre than to front, the lips are loosely spread, the tongue is lax

Vowel /i:/

example: eve, eat, fee

- the front of the tongue is raised to a height, the lips are spread, the tongue is tense
- tends to be slightly diphthongized

Vowel /e/

example: any, let, breath

- the front of the tongue is raised between the close-mid and open-mid positions, the lips are loosely spread

Vowel /æ/

example: act, back, rash

- the mouth is slightly more open than for /e/, the front of the tongue is raised, the lips are neutrally open

Vowel /ɜ:/

example: other, duck, enough

- is articulated with a considerable separation of the jaws and with the lips neutrally open, the centre of the tongue is raised just above the fully open position
- it never occurs in the word-final position

Vowel /ɔ:/

example: aunt, bath, car

- is articulated with a considerable separation of the jaws and the lips neutrally open

Vowel /ɒ/

example: odd, fog, because

- is articulated with wide open jaws and slight, open lip-rounding

Vowel /ɔ:/:

example: all, call, law

- is articulated with medium lip-rounding, the back of the tongue is raised between the open-mid and close-mid positions
- it occurs in all positions in words

Vowel /ʊ/

example: oops, look, butcher

- is pronounced with a part of the tongue nearer to centre than to back, the lips are closely but loosely rounded

Vowel /u:/

example: ooze, fool, through

- is a close back vowel
- the lips tend to be closely rounded
- it occurs in all positions in words

Vowel /ə/

example: above, woman, colour

- has a very high frequency of occurrence in unaccented syllables
- the tongue may be slightly more raised and retracted
- this type of vowel is usually called **schwa**

Vowel /ɜ:/:

example: earn, serve, fur

- is articulated with the centre of the tongue raised between close-mid and open-mid, the lips are neutrally spread

-

!!!

In English: we have 12 distinctive vowel

In Slovak: we have only 11 vowels (no schwa a □)

In English: /e:/ doesn't exist

In Slovak: /ə/ /□:/ don't exist

Diphthongs

Phonetic definition:

- is a complex speech sound beginning with one vowel sound and moving to another vowel or semivowel position within the same syllable.
- is defined as a combination of two vowels in one and the same syllable.

Phonological definition:

1. closing diphthongs ending in /□/ /a□/ /e□/ /□ □
2. closing diphthongs closing in /□/ /a□/ /ə□/
3. centring diphthongs ending in /ə/ /□ /əeə/ /□ /ə

The Length and Prominence of English Diphthongs

When the first part of the diphthong is longer and more prominent, the diphthong is said to be **falling (descending)** - /a□/, /□ □

When the second part of the diphthong is longer and more prominent, the diphthong is said to be **rising (ascending)** - /□ /ə

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English: falling diphthongs – 1-st element is more prominent

rising diphthongs – 2-nd element is more prominent

there are 8 distinctive diphthongs

Slovak: diphthongs are only rising = the 2nd element is more prominent (ia, ie, iu, ô)

there are only 4 distinctive diphthongs

E. diphthongs are reduced (shortened) when followed by a voiceless consonant and non-reduced when followed by a voiced consonant or standing in the word-final position.

It's usually the first element of the diphthong that is influenced by the following sound.

When a diphthong is reduced, both elements have approximately the same length. When a diphthong is non-reduced, usually the first element sounds much longer than the second element.

The Description of English Distinctive Diphthongs

Diphthong /e□/

example: eight, make, day

- the lips are spread
- it occurs in all positions in words

D. /a□/

ex: ice, mine, fly

- starting point may be similar to the articulation used in RP /ɪ/
- the lips change from neutral to a loosely spread position

D. /ɪ ɪ/

ex: oil, noise, ploy

- the lips are neutral for the first element, changing to neutral for the second

D. /ə ɪ/

ex: old, toast, flow

- the lips are neutral for the first element, but have a tendency to round on the second element. The starting point may have a tongue position similar to that described for /ɪ:/

D. /a ɪ/

ex: out, sound, now

- the lips change from a neutrally open to a weakly rounded position

D. /ɪ /ə/

ex: fierce, dear, eerie

D. /eə/

ex: airway, carefree, dare

D. /ɪ /ə/

ex: urdu, cruel, sure

Triphthongs

Phonetic definition:

- a triphthong is a glide from one vowel to another and then to a third, all produced rapidly and without interruption.

Phonological definition:

- a triphthong is a unit of sound functioning as the centre of syllable

Triphthong /eɪ /ə/

ex: player, layering, greyer

T. /aɪ /ə/

ex: iron, society, fire

T. /ɔɪ /ə/

ex: oy, joyous, employer

T. /əɪ /ə/

ex: mower, lowering, slower

T. /aɪ /ə/

ex: hourglass, coward, flower

10. English consonants

Phonetic definition:

- is a speech sound produced by a partial or complete obstruction of the air stream by any of various constrictions of the speech organs.

Phonological definition:

- those segments which, in a particular language, occur at the edges of syllables.

!!!

English: 24 distinctive consonants

Slovak: 27 + ř, ľ, ĺ

there are no such phonemes as / □/ and / ð/

The quality of E. consonants influences the real acoustic length of preceding vowels, whereas in Slovak, no dramatic influence of this type can be heard.

Consonants can be described from different points of view. This usually involves *characterization according to:*

a, source of energy: pulmonic/non pulmonic (no involvement of the lungs)

b, the direction of the airstream: egressive (breath out)/ingressive (breath in)

c, the vocal fold activity: voiced sounds (active)/voiceless (inactive)

d, the position of the soft palate:

- oral sound (soft palate is raised, the airstream is released through the mouth only)
- nasalised sound (soft plate is lowered slightly, the airstream is released both through the oral and nasal cavities)
- nasal sound (soft palate is lowered and the oral passage is blocked completely, the airstream escapes solely through the nasal cavity).

e, the place of articulation:

- organs of articulation can make different contact at different places
 1. bilabial – the upper and lower lips make contact, e.g. /p, b, m/
 2. labiodental – the lower lip and the upper teeth make contact, e.g. /f, v/
 3. dental – the tongue makes contact with the upper teeth / θ, ð/
 4. alveolar – the tongue makes contact with the alveolar ridge /t, d, l, n, s, z/
 5. post-alveolar – the tongue makes contact with the rear part of the alveolar ridge /r/
 6. palato-alveolar – the tongue makes contact with the alveolar ridge and hard palate, / ʃ, ʒ, tʃ, dʒ /
 7. palatal – the tongue makes contact with the hard palate, /j/
 8. velar – the back of the tongue makes contact with the soft palate (velum) /k, g, ŋ/
 9. uvular – the back of the tongue makes contact with the uvula, /r/
 10. glottal – the vocal folds are narrowed and make friction without vibration, /h/

f, the manner of articulation:

- the degree of closure
 1. complete closure: plosives /p, b, t, d, k, g, □/
affricates / ʃ, ʒ /

- | | |
|--|--|
| | nasals /m, n, ŋ/ |
| 2. intermittent closure | trill – slovak long [r:]
tap – slovak /r/ |
| 3. partial closure | lateral - /l/ |
| 4. narrowing | fricatives /f, v, s, z, θ, ð, h, ʃ, ʒ, ʒ/ |
| 4. narrowing without friction – approximants | /j, w, r/ |

g, the presence or absence of the noise component

- can be classified according to their noise component.
- 1. obstruents (plosives, fricatives and affricates) - consonants during the production of which there is audible noise component
- 2. sonorants (nasals, laterals and approximants) – the consonants during the production of which there is no audible noise component

h, the articulating organ:

- depending on the active articulating organ used, we distinguish these classes:
- 1. labial:
 - a, labial
 - b, labiodental
- 2. lingual:
 - a, apical /d, t/
 - b, laminal /s, z/
 - c, pre-dorsal /j, tʰ, dʰ, ŋ/
 - d, post-dorsal /k, g, ŋ/
 - e, radical /ɹ/
- 3. glottal /h/

ch, the muscular effort:

- a, lenis c. – voiced consonants which tend to be articulated with little muscular effort
- b, fortis – voiceless consonants which are articulated with relatively strong muscular effort

i, the possible length:

- you can continue making them without interruption as long as you have enough air in your lungs – continuants /nasal, lateral, fricative and trilled c./

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English: no consonants have the status of long sounds

Slovak: phonologically, there are no long consonants in Slovak. Phonetically, there are two official long allophones [r:] [l:]

j, the amount of high-frequency energy:

- some consonants have more acoustic energy at high frequencies – sibilants /s, z, ʃ, ʒ, ʒ, ʒ/

The Description of English Distinctive Consonants

Plosives

- there are six distinctive plosive consonants in English /p, t, k, b, d, g/ and the glottal plosive [ʔ]. The term plosive comes from the fact that this type of consonant produces plosion, which is the escape of the compressed air from the mouth. Plosive consonants are sometimes called stops, because during their articulation they form complete obstruction in the mouth and stop the airstream issuing from the lungs.

Their production consists of 3 main phases

1. closure phase
2. hold phase
3. release phase – during the release the escape of air produces an audible noise - plosion
4. post-release phase – this additional puff of air is called aspiration.

English plosives can stand in 3 positions in words:

1. word-initial position
 - all plosive consonants in English standing in the initial position produce plosion, e.g. part, boat...
 - voiceless plosives produce stronger plosion than voiced plosives. Voiceless plosives /p,t,k/ in stressed initial position followed by a vowel or diphthong are accompanied by aspiration – symbolised by a small raised [^h]. When these plosives are followed by /l, r, j, w/, the aspiration is manifested as devoicing of /l, r, j, w/. Voiceless plosives preceded by /s/ in a stressed position, e.g. stone, spy, sky, lose their aspiration.
 - voiced plosives are never aspirated.
2. word-medial position
 - the pronunciation of English plosives in medial positions depends on the presence or absence of the primary stress and also on the preceding and following sounds. All plosives in the stressed medial position produce audible plosion and all voiceless plosives are aspirated or devoice the following /l, r, j, w/. Voiced plosives preceded by /s/ in stressed medial position, e.g. respect /rɪˈspekt/, lose their aspiration.
3. word-final position
 - the plosion of all E. plosives in the final position, e.g. stop /stɒp/ is very weak and often not audible. Voiced plosives standing finally have very little voicing.

The process of plosion of English plosives can be realized in many different ways. The main division is according to the direction of the release, which can be done either through the nasal passage – **nasal plosion** or through the oral cavity – **oral plosion**.

Nasal plosion:

Bilabial plosives /p, b/

e.g. /p/ - peace, apple

/b/ - bin, able

Both /p/ and /b/ have the same place and manner of articulation. The soft palate is raised and the obstacle to the airstream is formed by the lips. When the air behind the closure is released, an audible noise – plosion is produced. Generally, plosion produced by /p/ is stronger than that of /b/. The only difference between /p/ and /b/ is voicing - /p/ is voiceless and /b/ is voiced.

Alveolar plosives /t,d/

e.g. /t/ - tip, attack

/d/ - dim, red

The manner and place of articulation is identical for both. The soft palate is raised and the obstacle to the airstream is formed by the closure made between the tongue and the alveolar ridge. When the compressed air behind the closure is released, an audible noise – plosion - is produced. /t/ is aspirated in stressed initial and medial positions followed by vowels, diphthongs or triphthongs. /d/. The only difference between /t/ and /d/ is voicing - /t/ is voiceless and /d/ is voiced.

Velar plosives /k, g/

e. g. /k/ - kind, acre

/g/ - gain, eager

The place and manner of articulation is identical. The soft palate is raised and the obstacle to the airstream is formed by the closure made between the tongue and the soft palate. When the compressed air behind the closure is released, an audible noise – plosion- is produced. /k/ is aspirated in stressed initial and medial positions followed by vowels, diphthongs or triphthongs. The only difference between /k/ and /g/ is voicing - /k/ is voiceless and /g/ is voiced.

Glottal plosive [ʔ]

This glottal plosive is not a distinctive consonant but it's very frequently used.

The obstruction to the airstream is formed by the closure of the vocal folds. The production of one sound is abruptly stopped by closing the glottis, and after a short period of silence, another sound continues suddenly. It is classified as neither voiced nor voiceless.

Affricates

There are two distinctive affricate consonants in English. /tʃ/ /dʒ/.

- they are rather complex consonants. They begin as plosives and end as fricatives.

To consider them affricates:

1. they must be homorganic – made with the same articulators

2. distribution

a, regularly occur in all positions in words

b, in an intervocalic position they should behave like simple consonants, e.g. pitches, pitiful, aged.

Palato-alveolar affricates /tʃ/ /dʒ/.

e.g. /tʃ/ just, urgent

/dʒ/ change, feature

The soft palate is raised and the obstacle to the airstream is formed by a closure made between the tongue and alveolar ridge and the palate at the same time. /tʃ/ may be slightly aspirated in all positions where /p/, /t/, and /k/ are. The difference between them lies primarily in voicing - /tʃ/ is voiced /tʃ/ is voiceless.

Fricatives

There are nine distinctive fricative consonants in English:

/f/, /v/, /s/, /z/, /h/, /θ/, /ð/, /ʃ/, /ʒ/

In the articulation of a fricative consonant, two organs are brought and held sufficiently close together for the escaping airstream to produce friction. They are characterised by a noise component. All of them except /h/ can be found in all positions in words. There is no word that would end with /h/.

Labiodental fricatives /f, v/

e.g. /f/ fight, after

/v/ very, over

The soft palate is raised and the lower lip makes contact with the upper teeth. The escaping air produces friction. The difference between them lies primarily in voicing - /v/ is voiced /f/ is voiceless.

Dental fricatives / θ, ð/

e.g. / θ/ thick, method

/ ð/ this, other

The soft palate is raised and the tip to the tongue touches the edge of the upper teeth. The difference between them lies primarily in voicing - / ð / is voiced / θ / is voiceless.

Alveolar fricatives /s, z/

e.g. /s/ some, concert

/z/ zoo, easy

The soft palate is raised and the tip and blade of the tongue makes light contact with the alveolar ridge. The air escapes through a narrow groove between the tongue and alveola and creates friction. The difference between them lies primarily in voicing - / z / is voiced / s / is voiceless.

Palato-alveolar fricatives /ʃ, ʒ/

e.g. /ʃ/ sheep, ashore

/ʒ/ genre, pleasure

The soft palate is raised and the tongue makes contact with the alveolar ridge and the hard palate at the same time. The escaping air creates friction. The pair is produced with the same manner and in the same place of articulation. The difference between them lies primarily in voicing - /ʃ / is voiced /ʒ / is voiceless.

Glottal fricative /h/

e.g. huge, hot, behave

The place of articulation of this consonant is glottal. This means that the narrowing that produces the friction noise is between the vocal folds. /h/ always takes on the quality of the following sound, which is most often a vowel.

Nasals

There are 3 distinctive nasal consonants in English: /m/, /n/, /ŋ /

- the soft palate is in its lowered position, allowing an escape of air into the nasal cavity and giving the sound the special resonance provided by the naso-pharyngeal cavity. All nasal consonants are continuants. They belong among sonorants and all of them are voiced.

Bilabial nasal /m/

e.g. mother, summer

The lips form a closure similar to that of /p/ or /b/, the soft palate is lowered, so the air escapes through the nasal cavity. /m/ is a voiced consonant.

Alveolar nasal /n/

e.g. no, dinner

The tongue touches the alveolar ridge and forms a closure similar to that of /t/ or /d/. The soft palate is lowered and the air escapes through the nasal cavity. /n/ is a voiced consonant.

Velar nasal /ŋ/

e.g. singer, anxious, hang

The back of the tongue touches the velum and forms a closure similar to that of /k/ or /g/. The soft palate is lowered and the air escapes through the nasal cavity /ŋ/ is voiced.

Laterals

There is only one distinctive lateral consonant in English /l/.

A lateral c. is one in which the passage of air through the mouth does not go in the usual way along the centre of the tongue instead, there is complete closure between the centre of the tongue and the part of the roof of the mouth where contact is to be made. There are several varieties of /l/ in E. but for practical purposes it is sufficient to distinguish two – clear [l^h] and dark [ɫ].

Lateral /l/

e.g. leap, glad, kill

The soft palate is raised and the tip of the tongue is in contact with the alveolar ridge. The air escapes along both sides of the tongue.

Approximants

There are 3 distinctive approximants in English: /r/, /j/, /w/

During the production of a. the airstream escapes through a relatively narrow opening in the mouth without any significant friction. All approximants are voiced.

Post-alveolar approximant /r/

e.g. rat, very, arrive

Voiced post-alveolar a. – the soft palate is raised and the tip of the tongue is held, without contact, close to the back part of the alveolar ridge. The airstream escapes freely, without friction.

Palatal approximant /j/

e.g. yard, music

The soft palate is raised. The tongue assumes the position for a close-mid or close vowel and moves immediately into the position of the following sound. The lips are neutral or spread. /j/ may be devoiced when preceded by /p/, /t/, /k/, or /h/ in stressed syllables, e.g. pew, tune...

Labial-velar approximant /w/

e.g. wait, twice, swim

The soft palate is raised. The tongue assumes the position for a close-mid or close vowel and moves immediately into the position of the following sound. The lips are rounded.

11. Combination of sounds and their problems. Assimilation, elision, linking. Basic differences between English and Slovak.

Assimilation

- the quality of the phonemes of the word depends on the type of the surrounding sounds and they style of the speaker. In informal style and with increased tempo of speech, one or more sounds can change their acoustic qualities. A variation withing the same phoneme, and only a new subsidiary member of the same phoneme is produced. Sometimes the change is so dramatic that a completely different phoneme is formed

- 1. allophonic assimilation**
- 2. phonemic assimilation**

Allophonic assimilation

- it refers to a particular acoustic realisation of a sound in a particular phonetic context. It is the use of a particular allophone in a particular word, where the choice of the allophone is conditioned by the phonetic environment of the word.
- any allophonic change occuring within the word caused by the presence of the neighbouring sound(s) will fall into this group. Here are the most imp. categories:
 1. place of articulation:
 - post-alveolar
 - dental
 - labio-dental
 - advanced
 - retracted
 - velarized
 2. voicing
 3. lip rounding
 - spread
 - rounded
 4. nasalization

Phonemic assimilation

- involves a change of the phoneme into antoher. It is defined as the process of replacing a sound by another sound under the influence of a third sound which is near to it in the word or sentence. It´s a change of one or more phonemes into a different

phoneme under the influence of the neighbouring sounds. It's most likely to occur in rapid, casual speech, and it mostly affects consonants.

Division:

1. *historical and contextual* – (e.g. picture /'pɪktʃɪr/ - /'pɪkə/ the consonants / t/ and /j/ coalesced into one: /ɪ/

contextual – occurs in rapid casual speech where one or more phonemes change into another phoneme under the influence of the neighbouring sound.

e.g increase /ɪn'kri:s/ - /ɪŋ'kri:s/ the consonant /n/ changed into /ŋ/ under the influence of /k/.
2. *progressive* – a phoneme changes into a different phoneme under the influence of the preceding sound. This type of a. is not very frequent.

e. g. dogs /dɒgz/ - the consonant /s/ changed into /z/ under the influence of the preceding /g/ which is a voiced sound.
3. *regressive* – a phoneme changes into a different phoneme under the influence of the following sound. It can be found frequently, both within the word and at word boundaries.
 1. the consonant /t/ followed by any of the following consonants /p, b, m/ assimilates to /p/. The consonant /t/ followed by any of the following consonants /k, g/ assimilates to /k/.

e.g. /tp/ @/pp/@/p/: footprint /'fʊtprɪnt/ → /'fʊpprɪnt/ → /'fʊprɪnt/
 2. the consonant /d/ followed by any of the following consonants /p, b, m/ assimilates to /b/. The consonant /d/ followed by any of the following consonants /k, g/ assimilates to /g/.

e.g. /dp/ @/bp/: tadpole /'tædpə/ @ /'tæbpə/
 3. the consonant /n/ followed by any of the following consonants /p, b, m/ assimilates to /m/. The consonant /n/ followed by any of the following consonants /k, g/ assimilates to /ŋ/.

e.g. /np/ @/mp/: gunpoint /'gʌnpɔɪnt/ @ /'gʌmpɔɪnt/
 4. the consonant /s/ followed by any of the following consonants / ɪ, ʌ, ɒ / assimilates to / ɪ / .

e.g. /sɪ/ → / ɪ ɪ / → / ɪ ɪ /: misshippae /mɪs'ʃeɪp/ → /mɪ ʃeɪp/ → /mɪ ʃeɪp/
 5. the consonant /z/ followed by any of the following consonants / ɪ, ʌ, ɒ, j / assimilates to /ɪ/

e.g. /zɪ/ → / ɪ ɪ /: /'kwɒzə/ → /'kwɒ ɪə/
 6. the sequence of consonants /nt/ followed by any of the following consonants /p, b, m/ assimilates to /mp/. The assimilation is then followed by elision of /p/ leaving only /m/. The sequence of consonants /nt/ followed by any of the following consonants /k, g/ assimilates to /ŋk/. The assimilation is then followed by elision of /k/, leaving only / ŋ/.

/tnp/ → /mpp/→/mp/: front-page /,frʌnt'peɪt/ → /,frɒmp'peɪt/ → /,frɒm'peɪt/
 7. the sequence of consonants /nd/ followed by any of the following consonants /p,b,m/ assimilates to /mb/. The assimilation is then followed by elision of /b/, leaving only /m/. The sequence of consonants /nd/ followed by any of the following consonants /k,g/ assimilates to /ŋg/. The assimilation is then followed by elision of /g/ leaving only /ŋ/.
4. *coaselcent* – it's a process of coalescing of two sounds into one.

We distinguish two types:

1. assibilation – a specific kind of assimilation which results in acquiring a sibilant pronunciation by the sound or sound-group which originally did not contain it.
 - a, /dj/ → /dʒ/ e.g. assiduous, due
 - b, /tj/ → /tʃ/ e.g. actual, tune
2. transsibilation – a consonant containing a sibilant sound is replaced by another – new one
 - a, /sj/ → /ʃ/ tissue, issue
 - b, /zj/ → /ʒ/ visual, azure

Differences between E. and S.:

1. **both allophonic and phonemic assimilations produce different results in the two languages, which is mostly due to the possible sound environments and sequencing.**
2. **the presence of aspiration in E. causes allophonic assimilation of some sounds – this is not possible in Slovak.**
3. **the devoicing of word-final voiced consonants is usually partial in E. but complete in S.**
4. **in Slovak, regressive assimilation involving voicing within the word also occurs in slow speech, which is something not found in E.**
5. **there is no progressive phonemic assimilation in S.**

Similarities:

- **coalescence assimilation in both E. and S. occurs usually in informal colloquial speech.**

Linking

Linking is a process known to occur mainly in connected speech, but it can also be found within the word. A term used in phonology to refer to sound which is introduced between linguistic units, usually for ease of pronunciation.

Depending on the type of vowels involved, we insert one of these three linking sounds - /r/, /j/ or /w/

Linking /r/

- when a word ends with any of the vowels /ɔ:/, ɔ:/, ɔ:/, ə/ or diphthongs /ɔə/ /eə/ /ɔə/ and the last or penultimate letter (except for the word final sequence – rə) (far - /f ɔ:/), the linking /r/ is inserted between this word and the following word, if the following word begins with a vowel.
e. g. far away /, f ɔ: rə weɪ/
- when the word ends in a vowel /ɔ:/, ɔ:/, ə/ or a diphthong /ɔə/ and the last or penultimate letter of the word is not r) except for the word final sequence -ra), the linking /r/ is inserted between this word and following word if the following word begins with a vowel. This type of linking /r/ is called **intrusive /r/**.
e.g. /r ɪ ɪ n(d) t ɪ a n ə / - Russia and China

Linking /j/

- when a word ends with any of the vowels /ɪ, i:/ /a/ /e/ /ɔ/ /ɪ/ a slight /j/- link is inserted between this syllable and the following syllable, if the following syllable begins with a vowel.

e.g. pretty eyes - /'prɪtʃaɪz/

Linking /w/

- when a word ends with the vowel /u:/ /a/ /ə/ a slight /w/ - link is inserted between this syllable and the following syllable, if the following word begins in a vowel
e.g. two eyes /, tu: w aɪz/

Elision

- is the omission of sounds. Can be historical, but elision that occurs in present E. is contextual.

What influence elision:

- increased tempo of speech
- sound's quality
- it's position in the word
- quality of the neighbouring sound
- speaker's style

Elision of the vowels:

1. of the penultimate syllable of simple and derived (sound) words contains the vowels /ɪ/ or /ə/ and it's preceded by a syllable with primary stress, /ɪ/ and /ə/ tend to be elided
e.g. possible /'pɒsɪbl/ → /'pɒsbl/
2. if a pre-penultimate syllable of simple and derived words contains /ɪ/ and /ə/ and it's preceded by a syllable with the primary stress, /ɪ/ and /ə/ tend to be elided.
/'dɪf(ɪ)k(ə)lt/
3. words ending in /ɪər/ have a tendency to drop either /ɪ/ /ə/ /r/
/'sɪæŋk(ə)r/
4. the initial sequence /c+ 'ə+l/ and /c+ 'ə+r/ tend to drop the vowel /ə/ in rapid speech, and the primary stress is moved to the beginning of the word
/kə'rekt/ - /'krekt/
5. the word initial sequence (c^c + ə'+c) tends to drop the vowel /ə/ in rapid connected speech and the primary stress is moved to the beginning of the word.
/f(ə)'netks/ - /'fnetks/

Elision of consonants

1. the initial sequence /ɪ:/ + /c/ tends to drop the consonant /l/ in rapid speech.
/ɪ:(l)red/
2. word medial and final → consonant cluster. /nt+c/, /nd+c/, /st+c/, /ft+c/ tend to drop the consonants /t/ and /d/.
/læn(d)l:d/
3. word final consonant cluster tend to be reduced in rapid connected speech

Elision of both vowels and consonants

- the word final sequences /rɪr/ tend to be reduced to /r/

Differences between S. and E.

S:- it occurs only at the morpheme boundary and results in reduction of the number of syllables.

- the contextual elision is much less frequent than in E. and in Slovak it occurs mainly in consonant clusters.

E. – it occurs both within the word and at the word boundary.

- the contracted form he's /hi(:)z/ results in elision of both vowels and consonant. Nothing like this happens in Slovak.

13. The forms and functions of English intonation. Basic differences between E. and S.

Intonation may be defined as the variations which take place in the pitch of the voice in connected speech.

Forms of intonation:

Tone : is a distinctive pitch level of a syllable. We recognize 5 different tones in E.:

1. falling tone /fall/glide-down/: \ yes
2. rising tone /rise/glide-up/: / yes
3. level tone /level/: — yes

4. combine tone: falling – rising /fall-rise/dive/: $\searrow \swarrow$ yes
 rising- falling /rise-fall/: $\swarrow \searrow$ yes

The syllable which carries a tone is called a tonic syllable. It has a high degree of prominence and it carries a stress called tonic stress. Tonic syllable may be accompanied by other components forming a sequence called tone unit. Tone unit may consist of only 1 syllable in it's smallest form.

The simple tone unit consists of 4 components:

1. pre-head: consists of all unstressed syllables preceding the tonic syllable or the head.
eg. in an – *pre-head* \ hour
2. head: is all that part of a tone unit that extends from the 1st stressed syllable up to (but not including) the tonic syllable. If there is no stressed syllable preceding the tonic syllable there can't be a head .
eg. less than an – *head* \ hour.
3. tonic syllable: the central component of a tone unit. It carries tonic stress.
eg. \ hour
4. tail: consist of syllables between tonic syllable and the fone unit.
eg. \ Look at it / What *did you say?*

A simple tone unit can contain of all 4 components:

On my – *pre-head* way to the – *head* \ sta – *tonic.s* tion – *tail*

On my way to the station.

Pitch behaviour within the tone unit

when there's no tail following tonic syllable the moment of the tone isn't completed on the tonic syllable but it's carried over the syllables on the tail.

If there's a tail of 2 or more syllables the normal pitch movement is for the pitch to fall of the tonic syllable and to remain low until the last stressed syllable in the tail. The pitch than rises from that point up to the end of the tone unit.

e.g. I might buy it.

\searrow

If there's no stressed syllable in the tail, the rise happens on the final syllable.

e.g. Most of them

\searrow \swarrow

The functions of Intonation

There are 4 functions:

1. attitudinal
2. stress
3. grammatical
4. discourse

The attitudinal function

The process of expressing feelings, emotions, or attitudes is a very complex one. The expression of feelings, emotions, or attitudes may be genuine or artificial. We also express them differently with different people.

The tone, pitch range, key, pause and loudness form the basis of intonation in E. with rhythmicity and tempo closely related.

1. Fall

- finality, definiteness: 'That's the 'end of the\ news.
- strong commands: 'Take your 'feet off the\ chair.
- exclamations: 'Good\ Heavens

2. Rise

- encouraging: It , won't / hurt
- grumble: I , didn't / hurt you. (So why make all that fuss?)
- tag-questions after commands: \Come over , here / will you?

3. fall-rise

- uncertainty, doubt: It's \ / possible.
- requesting: , Can I \ / buy it?
- polite or pleading command: \ / Shut the ' window.

4. rise-fall

- surprise, impression: You were / \ first!
- challenging: Well, you damn well / \ ought to!

5. level

- boredom, disinterest, routine: Have you ever been in prison? No
- listening, enumerating: - one, - two, - three

The stress function

a, neutral – the tonic stress (focus) is usually placed on the last content word in the utterance

b, emphatic

c, contrastive – when we want to contrast certain words – lexical/grammatical (That book is mine, not yours)

The grammatical function of intonation

1. fulfilling the function of the comma – as a short pause or may be indicated by the preceding tone-unit
2. signaling the declarative/interrogative/imperative sentence type
 - a, declarative – using falling tone, when one part of the sentence is more important - *fall-rise*
 - b, interrogative – mostly rising – Y/N + echo Q..= alternative /coffee or tea? /- *rising-falling*
 - wh-questions – falling toner
 - tag-questions – certainty / uncertainty
 - c, imperative – commands

The discourse Function of Intonation

- a term used in linguistics to refer to a continuous stretch of language larger than a sentence
- the most important factor influencing the placement of the tonic stress in discourse is the information content of the words out of which the discourse is composed.
- the situational context plays an important role in intonation.

The differences between E. and S.

- 1. fall-rise and rise-fall are usually not found within one syllable in Slovak.**
- 2. Fall-rise is never used in Slovak questions. Rise-fall expressing surprise or big impression in E. doesn't have the same function in S.**
- 3. Slovak sentences usually begin with a stressed syllable, because words in Slovak have stress placed on the first syllable. in E. often stay with one or more unstressed syllable, and this influences not only rhythm, but also intonation. That is why S. sentences often start with a high pitch which is placed on the stressed syllable, unlike in E. , where the pitch of the initial unstressed syllables is usually low.**

10. English stress and rhythm, strong and weak forms. Basic differences between E. and S.

Word stress

- is the relative degree of force used in pronouncing the different syllables of a word.
- it's an articulatory phenomenon
- when we stress a syllable, we usually increase the loudness and the length of the vowel/s/, or we change the pitch of the vowel/s/s in some way.

Stress is the process of conscious change of these 3 phenomenon:

1. pitch – the change of it and it's height are important factors in distinguishing the stressed word from the unstressed one.
 - a, kinetic stress – based on the pitch movement
 - b, static stress – the stress without the pitch movement
2. loudness – stressed syllables are often perceived to be louder and in many cases they may be so
3. quantity – /the length of syllable/. Long vowels and diphthongs are generally more prominent than short ones.

Types of word stress

- a degree of syllable prominence. Depends on pitch, loudness, length, quality.

We distinguish between:

- a, a high degree of prominence – primary stressed syllables
- b, a medium degree of prominence – secondary stress syllables
- c, a low degree of prominence - no stress /unstressed syllables/

Primary stress

- is the increase of loudness and length and the variation of pitch of the syllable, which together with inherent sonority of the syllable gives the syllable a high degree of prominence
- we indicate it by means of a small vertical mark 'placed high up before the syllable it refers to
- can be placed on any syllable
- if the word consists of one syllable only, it's not placed
- not more than 1 primary stress in the word

Secondary stress

- is the increase of loudness and length and the variation of pitch of the syllable, which together with inherent sonority of the syllable gives the syllable a medium degree of prominence
- we indicate it by means of a small vertical mark , placed low down before the syllable it refers to
- can be placed on any syllable
- if the word consists of one syllable only, it's not placed
- not more than 2 secondary stress in the word

Stress influence on the clarity of vowels

1. *direct* – can be seen on the syllables carrying either primary or secondary stress. Such syllables always contain a clear, non-obscured vowel, that is, any other vowel than /ə/.
2. *indirect* – can be seen on the syllable following or preceding the syllable carrying primary stress. Here are 2 basic rules:
 - a, the vowels /ɪ/ and /ʊ/ of the final syllable carrying the primary stress tend to be obscured to /ə/.
e.g. mistake - /mɪ'steɪk/ - /mə'steɪk/
 - b, the vowels /ɪ/ and /ʊ/ of the syllable following the syllable with the primary stress tend to be obscured to /ə/.
e.g. clarity - /'klærət/ - /'klærət/

Stress pattern of the word

- the stress pattern is free, it means that the primary stress can be placed on any syllable of the word.

It's based on these factors:

- whether the word is simple or complex
- the gram. category of the word
- the nr. of syllables in the word
- the quality of vowels in the syllable

Variation of words stress

In E. there is a nr. of words which can have more than 1 stress pattern. These words are divided into two 2 groups:

1. words with identical spelling, meaning, word class and with different stress pattern:
adult → / ə'dʌlt/ - /'ædʌlt/
2. words with identical spelling and with different meaning, word class, stress pattern
minute → /'mɪnɪt/ - /maɪ'nju:t/

Variation of phonemic structure

There are cases in E when 1 word can be placed in 2 (ore even more) different ways without any change in stress pattern. Sometimes different pronunciation represents 2 different word classes. Sometimes there are mere variations of the same word.

e.g. economical - /, i:kə'nɒmɪkl/ vs. /, ekə'nɒmɪkl → doesn't bring any changes

e.g. advice - /əd'vaɪs/ = noun – advise / əd'vaɪz/= verb

Sentence stress

- is the relative degree of force given to the different words in a sentence. The placement of stress within the sentence depends on the relative importance of the words of that sentence.
- the more important a word is, the stronger is it's stress.
- the most important words are usually content words (full lexical words- nouns, verbs, adjectives, some adverbs) and sentence stress is usually placed on these words.

We distinguish between primary and secondary sentence stress.

1. **primary** – force is on the content words which carry most importance
2. **secondary** – force is usually on the content words of less importance, the word carrying neither primary nor secondary stress are considered to be unstressed (mainly function words)

Shift stress

- with some words, however, this fixed stress pattern is relative. it's mainly words where the primary stress is preceded either by secondary stress or by an unstressed syllable.

Two rules:

1. when a word where the primary stress is preceded by the secondary stress, is followed by a word with the primary stress on the first or on the second syllable, the primary stress of the first word is shifted to the first syllable and is reduced to secondary stress
2. when a word where the primary stress is preceded by an unstressed syllable, is followed by a word with the primary stress on the first syllable or on the second syllable, the primary stress of the first word is shifted to the first syllable and is reduced to secondary stress.

Differences between E. and S.

English: there are 3 degrees of syllable prominence – unstressed, with secondary stress and with primary stress

Slovak: there are also 3 degrees of syllable prominence but with less prominence

English: the placement of stress in E. is free, there's not an universal pattern

Slovak: there is a certain stable stress pattern, the primary stress is always placed on the first syllable

English: the stress is placed on content words

Slovak: it's not necessarily placed the stress on content words

English: can distinguish one word from another

Slovak: the stress pattern is stable

Rhythm

English speech is said to be rhythmical. It belongs to the so called stress-timed language – it is claimed that the stressed syllable recur at regular intervals of time, regardless general rule of E. rhythm is that we take an equal amount of time from one stressed syllable to the next, ie. that English rhythm has an isochrony based on stresses.

Basic rule of English rhythm:

- there is a tendency towards taking an approximately equal period of time between one stressed syllable and the next.

A rhythm unit is a unit containing a stressed syllable plus all the following unstressed syllables up to (but not including) the next stressed syllable.

Cases when the strict rhythm is kept:

- when counting /one, two, three..)
- when the speaker is expressing irritation/sarcasm

Borrowing rule

- a syllable with reduced vowel „borrows time“ from any immediately preceding syllable containing a full vowel.
- reduced vowels are /ə/, which is always unstressed, and unstressed /ɪ/ and /ʊ/. Stressed /ɪ/ and /ʊ/ and all remaining vowels are considered full.

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English: E. speech has rhythm

Slovak: the rhythm is based on the nr. and the type of syllables within words. The rule is that syllable with long vowels should not follow each other within one word. A diphthong in Slovak counts as a long vowel = rhythmical law.

E: the length of syllables in E. is ruled by stress

S: no such influence can be detected. S. is therefore called a syllable-timed language.

Strong and weak forms

- in English, function words that is: prepositions, conjunctions, determiners, pronouns, auxiliary verbs and some adverbs) are usually pronounced in their weak form
- during the change of the function word from its strong form to its weak form, any of the following 3 phenomena can take place:

1. reduction of length: to /tu:/ - /t (:)/ - /tu/
2. obscuration of vowels: at /æ̃t/ - /ət/
3. elision of sounds: /h□m/ - /(h)□m/-□m/

Exeptions and further rules:

1. reduciton of lenght

- a, when the word 'some' functions as determiner, it is usually reduced to /s(ə)m/, it may usually be omitted without destroying the structure of the sentence
- b, when the word 'some' functions as a pronoun it occurs in its strong form /s□m/
- the ommision of this type of the word 'smae' changes the meaning or destorys the structure of the sentence
- c, when the word 'some' stands at the end of the sentence it is always in its strong form

2. obscuration of vowels

- a, when the word 'that' functions as demonstrative pronoun or an adverb, the strong form /ðæt/ is used
- b, when it functions as a relative pronoun or conjunction the weak form that is used / ðət/

3. elision of sounds

- a, most of function words standing in the final position in the sentence keep their strong form, even though they are not necessarily stressed.
e.g. /'w□t ə ju: 'l□: f□ŋ æt/
- b, function words /he, him, her, them, us/ can have a weak form even when standing in the final position in the sentence
e.g. /tel (h)□m/
- c, function words: be, do, me, she, to, who, you retain their strong form at the ond of the sentence but their lenght may be rerduced
eg. /a□ d□(:) /
- d, when we contrast or compare 2 or more pronouns, or 2 or more prepositions, these pronouns and prepositions retain their strong form
e.g. / ðə, letə wəz 'frɒm (h)□m, n□t 'tu(:) (h)□m/
- e, auxiliary verbs shall, will retain theri strong from when standing at the beginning of the sentence
- the rest of auxiliary verbs may retain their strong form at the beginning of the sentence, although the weak form is more common
e.g. /, w□l ju(:)'help mi(:)/
- f, when a function word is being cited or quoted, the strong form is used
e.g. /ju(:) □ dnt, p□t 'ænd ət ði(:) 'end ə□ ə séntəns/
- g, when a function word is given stress for the purpose of emphasise, the strong form is used.
/ju(:)'m□s(t), g□v mi(:), m□: , m□n□/