

Intonation and prosody

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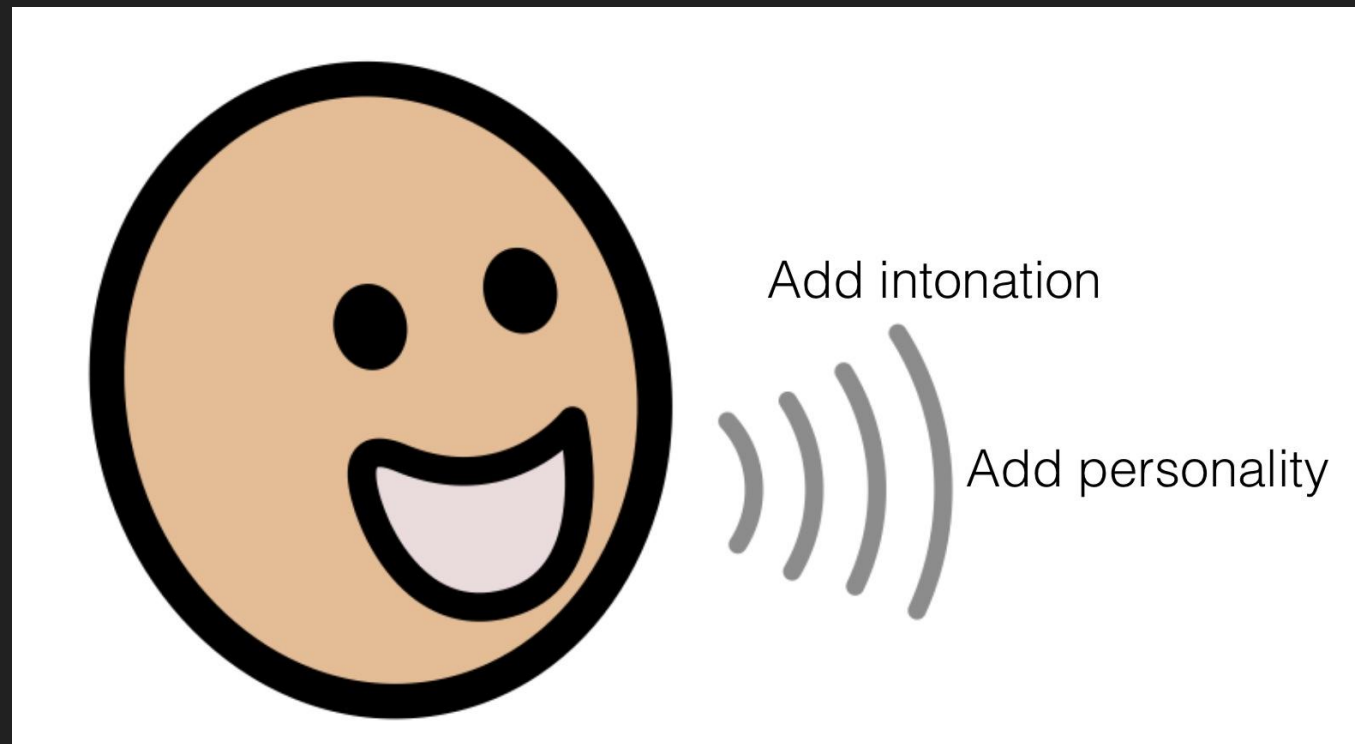
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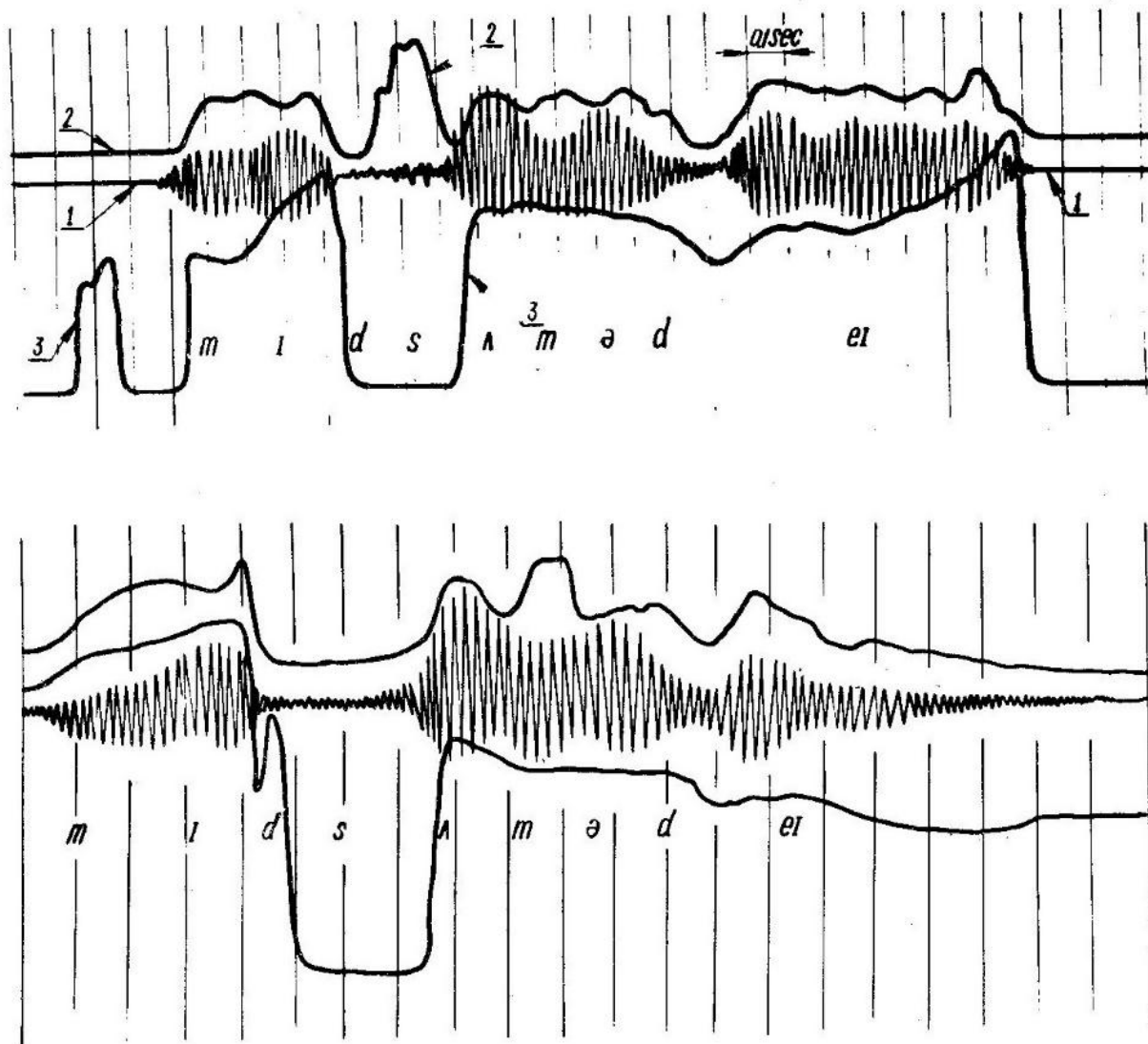
Phonemes, syllables and words, as lower – level linguistic units, are grouped by various prosodic means into a higher unit – the utterance!

Every concrete
utterance,
alongside of its
phonemic and
syllable
structures has a
certain prosodic
structure, or
intonation.



Most Soviet phoneticians define intonation as a complex unity of **speech melody, sentence stress, tempo, rhythm and voice timbre** which enables the speaker to express his thoughts, emotions and attitudes towards the contents of the utterance and the hearer. **Speech melody, sentence stress, tempo, rhythm and timbre** are all components of intonation. These are perceptible qualities of intonation.

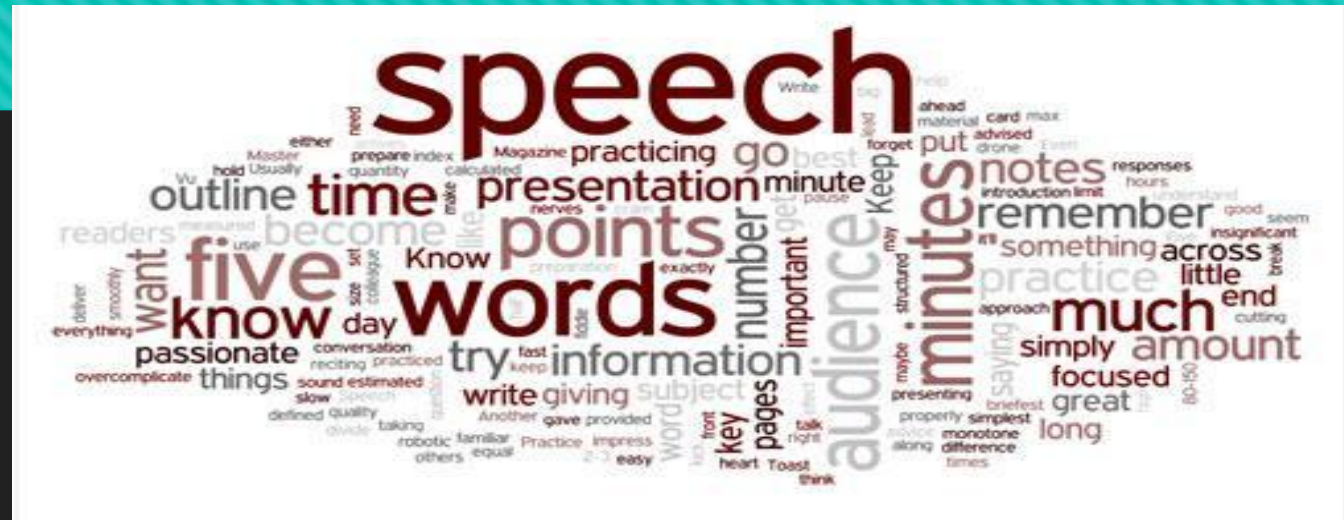




Acoustically, intonation is a complex combination of varying fundamental frequency, intensity, and duration

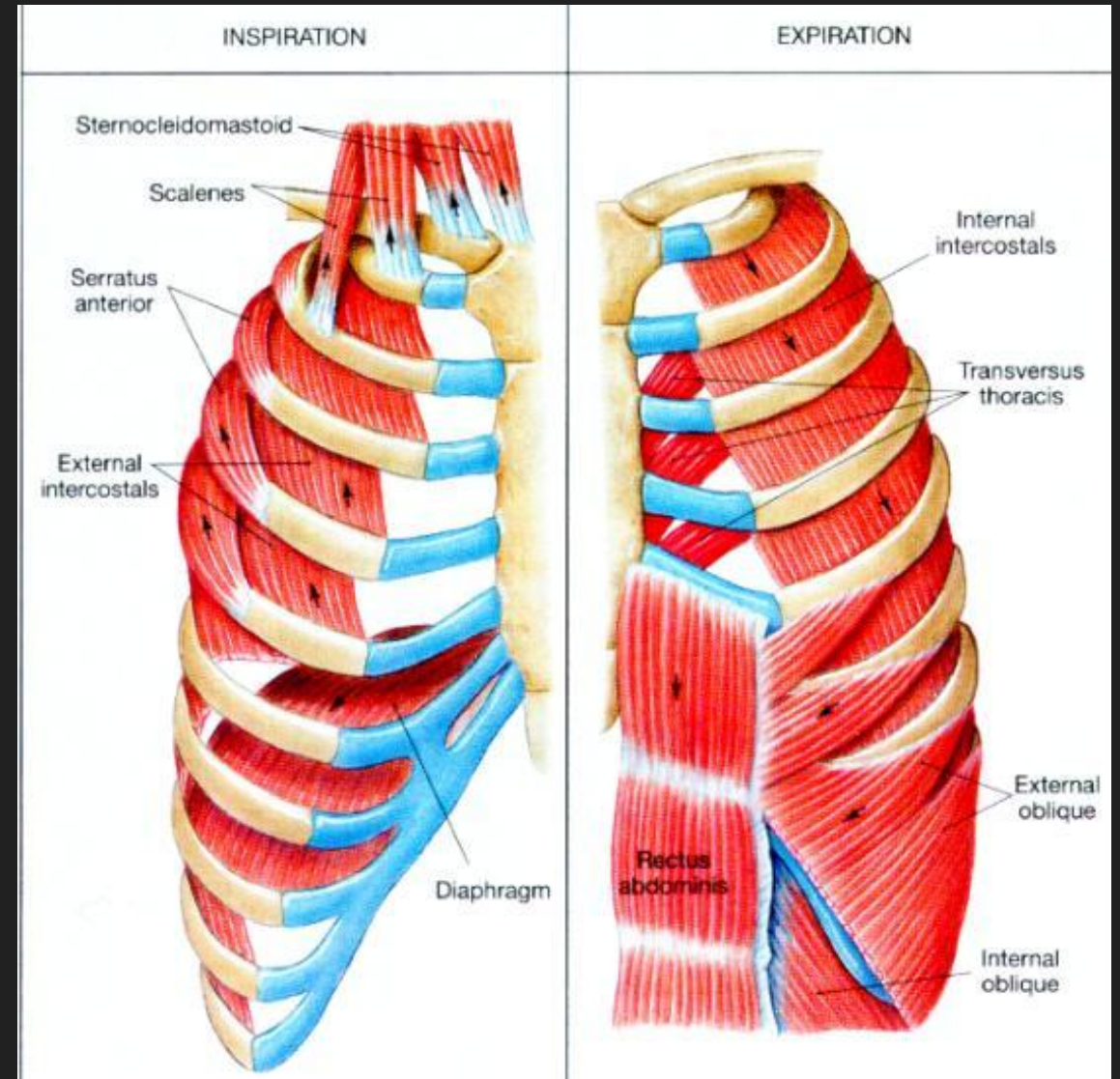
Fig. 10. Intonograms of "Midsummer day?" and "Midsummer day." 1 - wave forms of sounds; 2 - envelope amplitude of intensity; 3 - curve of fundamental frequency.

Speech melody is primarily related with fundamental frequency, tempo – with duration. But there is no one-to-one relation between any of the acoustic parameters and such components of intonation as stress and rhythm.



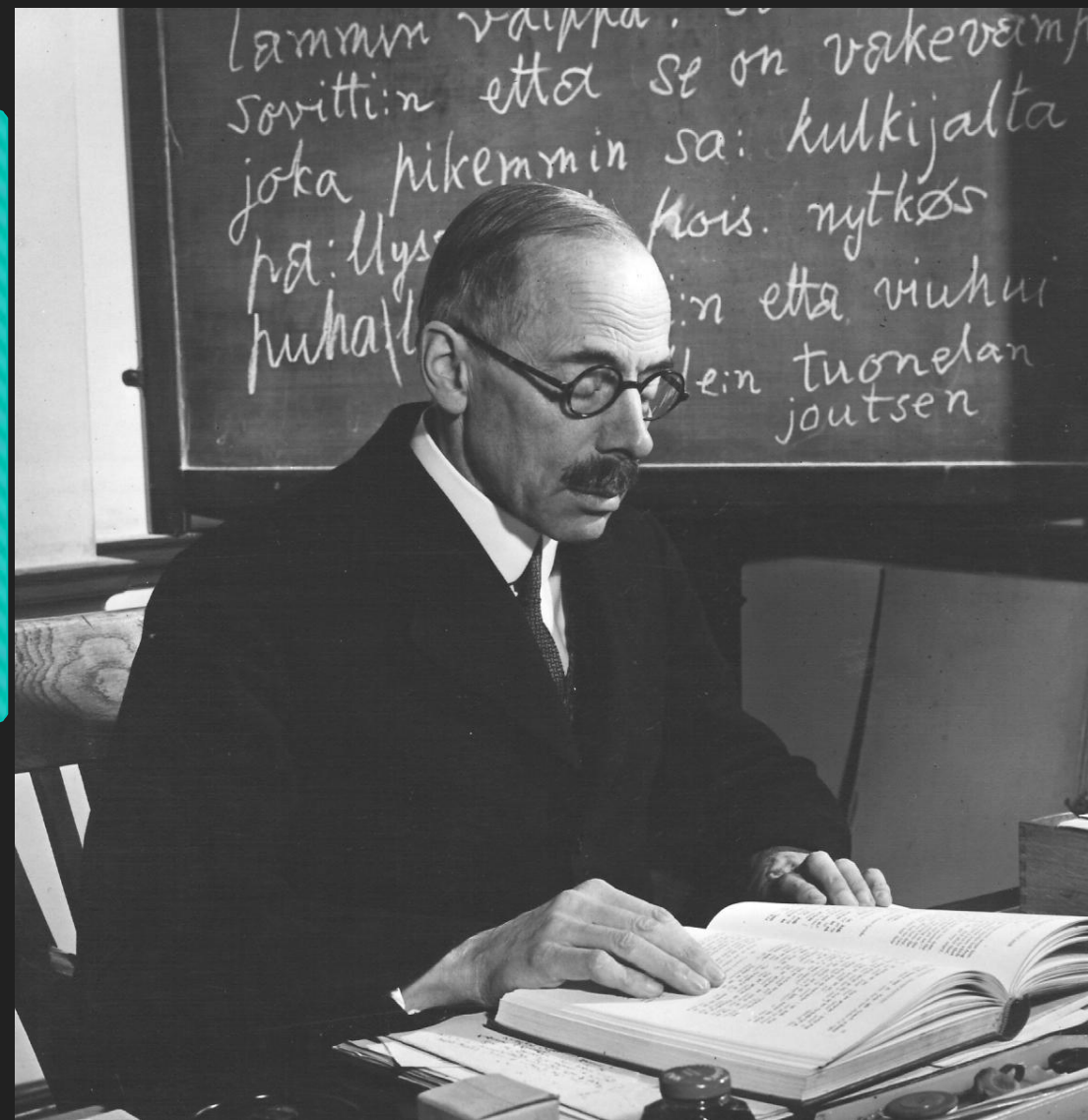
On the articulatory, or production, level intonation is also a complex phenomenon. In the production of speech melody the subglottal, laryngeal and supraglottal respiratory muscles regulate the subglottal air – pressure, which makes the vocal cords vibrate. An increase of subglottal pressure raises the pitch of the voice, and its decrease lowers the pitch.

There is no single mechanism to which the production of stress can be attributed. Electromyographic studies of the activity of the internal intercostals shows that bursts of intercostal activity correlate with the nuclear stress of the utterance. But physiological correlates of different degrees of stress haven't as yet been established.



The definition of intonation given above is a broad definition. It reflects the actual interconnection and interaction of melody, stress, tempo, rhythm and timbre in speech.

David Jones writes: «Intonation may be defined as the variations which take place in the pitch of the voice in connected speech, i.e. variations in the pitch of the musical note produced by the variations of the vocal cords.»



Alongside of term «intonation» the term «prosody» is widely used. «Prosody» and «prosodic» denote non-segmental phenomena, i.e. those which do not enter into the system of segmental phonemes

Some phoneticians apply the term prosody and prosodic only to the features pertaining to the syllable and phonetic word, or rhythmic unit and oppose prosody to intonation.

Whatever the views on the linguistic nature of prosodic phenomena, the phonic substance of prosody is regarded by all phoneticians as the modifications of fundamental frequency, intensity and duration. The most complicated and unsolved problems of prosody are the interaction between its acoustic properties, their functioning in speech and their systematization.

Jakobson says that the prosody is one of the most difficult and controversial problems of modern linguistic studies.



Questions:

1) Give the definition of intonation

2) Who has studied the intonation?

Thank you for your attention!