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## INTONATION DIFFERENCES AND SIMILARITIES OF DISCOURSES FROM VERBAL SENTENCES

**Abstract:** *The means of intonation serve to promote the relevance and integrity of the discourse in the real conversation process. Intonation ensures adequate communication in specific communication environments. In the article, we have drawn the results of phonetic analysis of dialogues selected from English for this investigation to determine intonationally similar and distinguishing features of discourses from verbal sentences.*

**Key words:** *intonation, verbal sentences, discourses, experimental-phonetically analysis, “PRAAT” program.*

**Language:** *English*

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### Introduction

Intonation includes speech melody (raising or lowering of the volume), rhythm (the connection of stressed and unstressed syllables), speed of the speech (rapid and slow pronunciation), intensity (strengthening or weakening of breathing), and logical emphasis. Intonation ensures grouping of parts of sentences correctly, and facilitates simple and complex sentences, as well as the relationship of coordination and subordination. Intonation allows you to define logical accents and words. Intonation is modality because it is related to the purpose, motives and desires of the speaker. By the help of intonation information, question and command form of the sentence is determined.

Intonation is primarily a matter of pitch variation, it is important to be aware that functions attributed to intonation such as the expression of attitudes and emotions, or highlighting aspects of grammatical structure, almost always involve concomitant variation in other prosodic features. David Crystal for example says that “intonation is not a single system of contours and levels, but the product of the interaction of features from different prosodic systems – tone, pitchchange, loudness, rhythmicity and tempo in particular” [1].

Intonation is represented not only by the sound material, the prosodic design of the language, but by

the balanced interaction of linguistic and non-linguistic factors in the spoken act as a centralized expression of the communicative semantics of heterogeneous language. Boundary markers of syntagmas were taken as pause, change of melodic contours - manifestation of the characteristic rising - falling movement of the main tone, increasing or decreasing intensity, and variation of the speed of pronunciation at the boundaries of the syntagmas.

One of the important features of the intonation is the organization of the conversation flow. L. V. Sherba notes that “in linguistic variation is the most distinctive tone (melody), the intensity of the sound (the rhythm), the relative length (or quantity), and, finally, from one sentence to the next or to the number of separate sounds, timbre is understood” [2, p.158].

According to him, “some scholars narrow down the concept of intonation to the notion of “speech melody”, except the change of timbre and power [2, p.158].

Intonation, in phonetics, is the melodic pattern of an utterance. Intonation is primarily a matter of variation in the pitch level of the voice. But in such languages as English, stress and rhythm are also involved. Intonation conveys differences of expressive meaning (e.g., surprise, anger, wariness) (3).

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Intonation serves to convey the attitude of the speaker to the expressed opinion. It (intonation – A.G.) passes colorfulness of the human emotions such as joy, sorrow, wonder, ridicule, protest, and so on. According to L. R. Zinder, “it is impossible to say something that is not expressing displeasure, anger, or mockery. In each such emotion, the attitude of the speaker to his or her own discourse is concealed, and such a determination of the nature of the category of modality means that there is no discourse deprived of this language category [4, p.6].

The British investigator Dwight Bolinger presents the peculiarities of intonation by comparing intonation with accent. “Intonation is the inclusive term, referring to all uses of fundamental pitch that reflect inner state. Accent is intonation at the service of emphasis. In the shapes of the profiles it makes certain syllables stand out in varying degrees above others, revealing to our hearer how important the words containing them are to us, and revealing to our hearer how important the words containing them are to us, and revealing also, by the buildup of accents, how important the whole message is” [5, p.3].

Recent research works are dedicated to the role of intonation in discourse. Firstly, what’s discourse? The researcher Jan Renkema in “Introduction to Discourse Studies” presents the meaning of discourse by the reference to the etymology of discourse. “The word stems from the Medieval Latin word “discurrere”, which means “to circulate”. Literally it means “to run to and fro” or “to run on”, like a person who gives a speech and runs on about a topic. A discourse is something that runs from one person to another” [6, p.48].

The scientist Robert de Beaugrande, a well-known researcher on discourse studies has formulated “seven criteria for textuality, that’s, criteria that a sequence of sentences must meet in order to qualify as a discourse: cohesion, coherence, intentionality, acceptability, informativeness, situationality, intertextuality” [6, p.49-50].

The investigators such as David Brazil, Malcolm Coulthard, and Brown, Currie and Kenworth investigate intonation in discourse. The investigators Dafydd Gibbon and Helmut Richter in their work named “Intonation, Accent and Rhythm: Studies and Discourse Phonology” overcomes weakness of traditional studies of intonation in discourse by being prepared to look beyond the tone-group, but it shares with these studies some of the other limitations in its application to discourse. Firstly, it remains atomistic in the sense that it is content to isolate individual features of the intonation pattern (the overall pitch level or the type of nuclear pattern) and to ascribe to them a specific meaning (“new topic”, “known information”, “referring” etc.) without assessing the interrelationships of the features themselves. Secondly, it seeks to identify such a meaning as

something which is external to intonation and to which the intonation pattern refers [7, p.120-121].

In the article, we used the results of phonetic analysis of English-selected dialogues to determine intonationally similar and distinguishing features of discourses from verbal sentences.

The use of dialectic materials in the investigation may be explained by the fact that a major part of a person's speech activity is the preparation for oral communication, which arises in the absence of preparation. Dialogue involvement can be explained by the fact that intonation becomes an important part of discourse and a means of discourse, because the functional load of intonation is more emphasized in pronunciation of discourses.

The importance of experimental studies in the phonetic literature is specially emphasized. In their research, linguists attach great importance to ideas based on the results of experimental studies. Academician L. V. Sherba says, “... the method of experimenting in syntax and lexicography and of course, methodology is particularly productive. Exchanging words, systematically substituting words, changing their order and intonation, without waiting for any writers to use a particular composition or combination will make us observe the differences in the meaning of acquisition. I would say that it is impossible to deal with these areas of linguistics without experimentation” [2, p.32].

In the experiment, the intonation features of one (terminal syntagma) and two-syntagmed (progredient-terminal syntagma) were analyzed.

The pronunciation of both speakers of the language material corresponds to the norms of literary pronunciation. In the experimental and phonetic study of language material, computer software "Praat" was used for obtaining the oscillograms and intonograms, acoustic parameters - time, intensity and frequency of the main tone. The language material intended for experimental-phonetic analysis was first recorded by the language carriers and recorded in the computer memory. Speakers who were pre-familiarized with the experimental materials were not given any information about the purpose of the experimental-phonetic research in the thesis, as it could in some sense have a negative impact on the results of the experiment.

Then language material was presented to auditors. In the first stage of the auditor’s analysis, the status of the discourses involved in the experiment and their soundness were evaluated for compliance with the English pronunciation norms. At the second stage of the auditor's analysis, the intonation features of the formal non-verbal discourses involved in the experimental-phonetic analysis were evaluated. Phonetic-structural features of discourses, syntagmatic substitute of syntactic whole, movement of key tone frequencies in syntagmas, determination of pronunciation rate, dynamics peak, interval

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between syntagmas and so on. are revealed by auditors at this stage,. The following levels of each trait were used to determine the prosodic characteristics of the discourses:

- tone level: low, medium and upper tones;
- tonality range: narrow, medium, wide;
- types of terminal tone: falling, rising, falling-rising, rising-falling, continuous, etc.
- peak volume: low, medium, high;
- realizing speed of discourses: low, medium, high;
- length of intervals: very short, short, medium, long, very long, etc.

The Praat program was developed by P. Boersma and D. Venik of the University of Amsterdam for special phonetic investigations. The software was downloaded from the Internet. The International Phonetic Alphabet (IPA) was used in the transcription of language material. The frequency, intensity, and acoustic marks of the time parameters of the language were obtained using the capabilities of the program. In the linguistic interpretation of the acoustic parameters,

the method developed by F.Y.Vaysalli, professor at AUL was used.

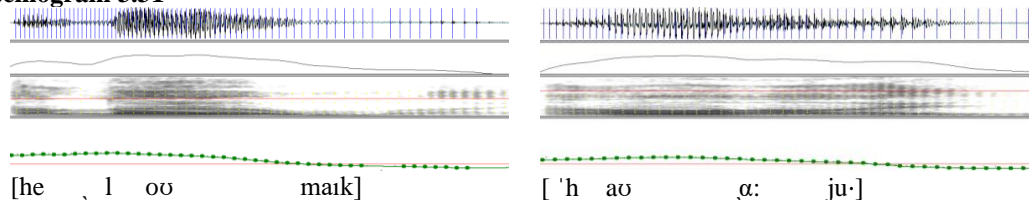
Information about Dialogue participants:

F. Ibadov, 37 years old man with a higher education and his pronunciation corresponds with an American version of English language.

N. Mehtiyeva, 23 years old woman with a higher education, her pronunciation corresponds with an American version of English language.

¡Hello, Mike! ¡How are you? /he ɫoo maik ||'haʊ α: ju:// both of the discourses have a falling intonation outline. Maximum melodicity was recorded at their beginning: the second syllable of the discourse of /he ɫoo maik// is 236 Hz, the first syllable of discourse of /'haʊ α: ju:// is 208 Hz. The minimum frequency in both discourses is 110 Hz and 135 Hz. The weakening of melody in the discourses is directly proportional to the decrease in intensity. The maximum intensity is 79 dB and 78 dB in the first syllables, and the minimum intensity is 56 dB and 69 dB in the last syllable (see oscillogram 3.31).

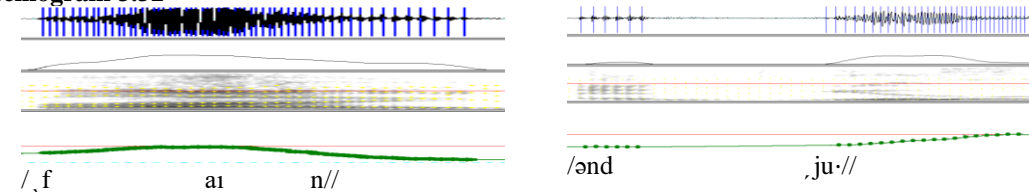
**Oscillogram 3.31**



In the discourse of ¡Fine ... and you? / a question intonation is realized. The maximum frequency for the low-rising intonation outlined discourse (confirmation-question) is 249 Hz for the first syllable and 244 Hz for the last syllable. Minimum frequency

recorded in the conjunction / and / : 136 Hz. Similar views are also reflected in the intensity marks: 75 dB in the first syllable, 67dB in the last syllable, and 63 dB in the conjunction / and / . (see: oscillogram 3.32).

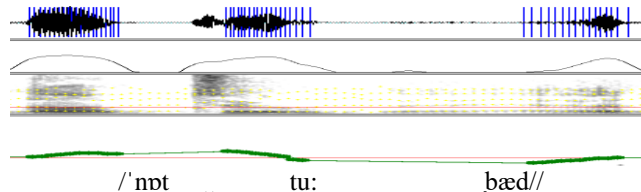
**Oscillogram 3.32**



The average starting frequency (241 Hz) of the discourse "Not too bad" / 'nɒt tu: bæd // is 253 Hz at the middle syllable and 180 Hz at the last syllable.

The intensity marks in the discourse were partially differently realized: 76 dB -74 DV-71 dB (see: oscillogram 3.33).

**Oscillogram 3.33**



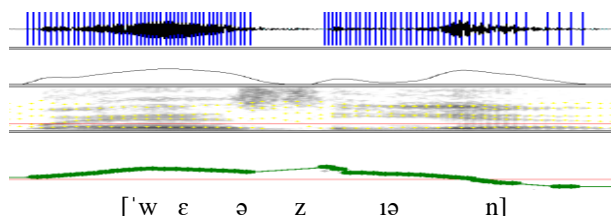
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Falling intonation outline has also been realized in the questioned discourse of ¿Where's Ian?. Key pitch frequencies: 276 Hz - 219 Hz; intensity: 72 dB - 70 dB; time: 141-168 m / s. In this statement, A. M. Peskovski's idea of "compensation principle" is justified: "... the more explicitly any syntactic

meaning is expressed with grammatical means, the less intimate its expression is (even until its complete disappearance), or vice versa. If his expression is strong, then his grammatical expression becomes weak" [8, p.181].

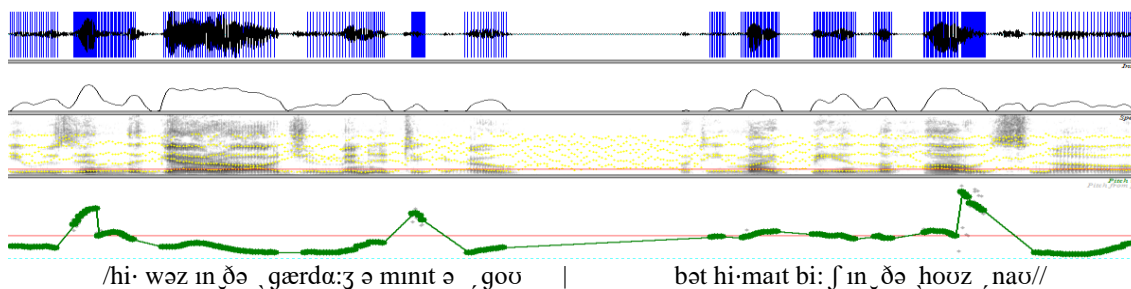
**Oscillogram 3.34**



The frequency of the main tone in two sintagma discourse of "He was in the garage a minute ago but he could be in the house now"/hi· wəz ɪn ðə ,gærdɑ:z ə mɪnɪt ə ,gou | bət hi·mɑ:t bi: ʃ ɪn ðə ˈhəʊz ,nəʊ/ is: in the first sintagma 162–153–273–273–171–168–148–128–130–140–136–132 Hz; in the second sintagma, 192–198–218–196–179–180–196–124 Hz; intensity: 59–62–77–66–73–70–60–67–62–57–60 dB in the

first sintagma; in the second sintagma, 53–55–72–63–63–64–66–74–60 dB; time parameter: in the first sintagma 73-79-63-70-07-138-78-60-65-67-136 m / sec; in the second sintagma, 56 -68-119-96-70-76-160-184 m / s. As it's seen, at the end of both sintagmas, the marks of acoustic parameters are observed to become weaker. (see: oscillogram 3.35).

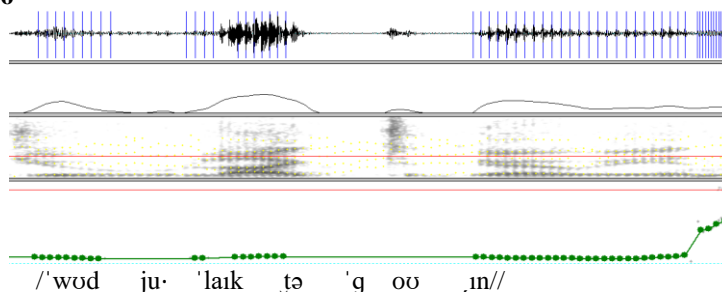
**Oscillogram 3.35**



The intonation of the question was recorded in the discourses of ¿Would you like to go in? /'wɒd ju· 'laɪk tə 'gou ,ɪn// . At the end of the discourse, there is a rise in the outline of the intonation. In the last syllable, the speed is 148 Hz. However, this is not the

case with time and intensive marks. Intensity marks: 62-52-69-54-63-57 dB, time marks are 87-56-115-60-127-78 m / sec (see: oscillogram 3.36).

**Oscillogram 3.36**



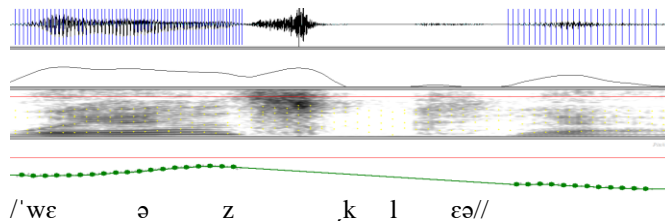
In the discourse of ¿Where's Clare? /'wɛəz ,kleə/ the acoustic parameters indicate the falling intonation outline. Key tone frequency: 302-387-204 Hz,.

Intensity: 76-69-65 dB, time marks are 87-76-120 m / sec (see: oscillogram 3.37).

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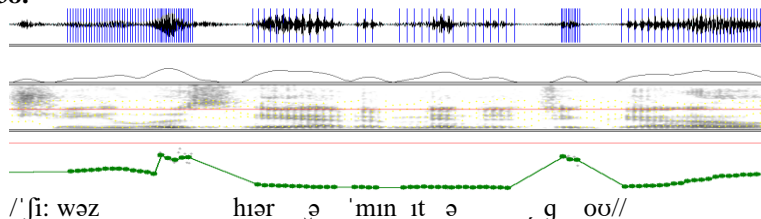
### Oscillogram 3.37



In the discourse of “She was here a minute ago” /ˈʃi: wəz hɪər ə ˈmɪnɪt ə, ɡooʔ/ the frequency of the main tone is: 262-363-148-110-115-110-365-207 Hz,

intensity: 56-69-67-57-64-56-57-66 dB, time marks 84-75-114-55- 50-52-56-174 m / s (see: oscillogram 3.38).

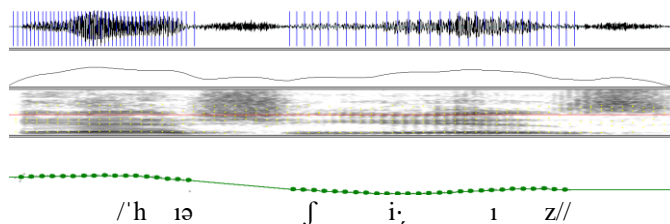
### Oscillogram 3.38.



In the discourse of “Here she is” /ˈhɪə ʃi: ɪz// the frequency of the main tone is 291-143-156 Hz, Intensity: 77-70-73 dB, time marks are 147-110-96 m / sec. The acoustic indicators of the syntagma reflect

the intonation of completeness (see: oscillogram 3.39).

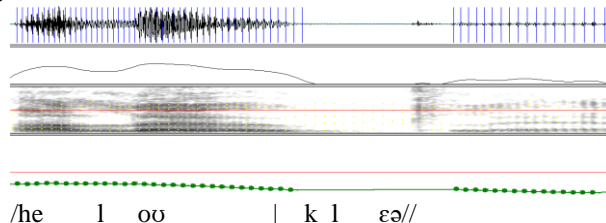
### Oscillogram 3.39.



In the two syntagmed discourse of "Hello, Clare" / hɛləʊ | klɛə // (Hello, Claire) falling intonation outline is observed in both prolegredient and

terminal syntagmas: frequency of key tone: 194-168 Hz; 148 Hz, intensity: 74-78 dB, 57 dB, time tags are 80-160 m / sec, 148 m / sec (see: oscillogram 3.40).

### Oscillogram 3.40.



In the discourses of "Hello" "Did you have a good journey?" /hɛləʊ | ˈdɪd juː hæv ə ˈɡʊd ˌdʒɜːnɪ// the frequency of key tone is 309-287 Hz, 223-304-266-250-262-182-139 Hz , intensity is 71-67 dB, 59-69-

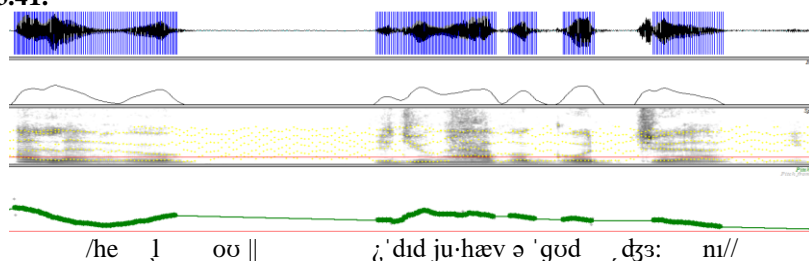
66-66-71-64-51 dB, time marks are 84-248 m / sec; 56-78-60-68-76-126-56 m / sec (see: oscillogram 3.41).



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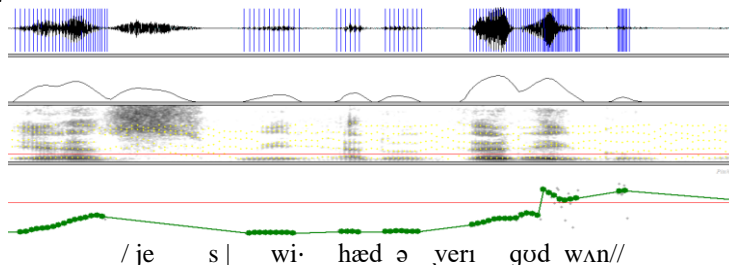
### Oscillogram 3.41.



In the discourse of “Yes, we had a very good one” /jes | wi· həd ə ʋerɪ ɡʊd wʌn// the frequency of the key tone is 244 Hz; 135-143-139-232-373-397-350 Hz, intensity is 73 dB; 59-60-56-69-75-55-52 dB, time marks are 110 m / sec; 73-62-65-82-90-69-76 m

/ sec. As it's seen in the discourse /Jes// falling intonation outline at the end, in the discourse ζ'did ju·hæv ə 'ɡʊd ,dʒɜ: nɪ// Rising intonation outline is realized (see: oscillogram 3.42).

### Oscillogram 3.42



Frequency variations in elliptic discourses are 1.6-2.1 times more than the frequency range of verbal discourses (see: oscillogram 3.31, 3.32, 3.33, 3.34, 3.37, 3.39, 3.40, 3.49, 3.51, 3.52, 3.56).

The similarity between the intonation of the discourses and the verbal sentences is that both of them have a weakening of the key tone and intensity at the end of the terminal syntagmas (in the discourses characterized by the intonation of completeness). In 75% of the terminal syntagmas, the analyzed discourses move towards the end of the intensity. Increasing or decreasing of intensity in the discourse is directly proportional to the falling-rising frequency of the main tone. The minimum indicator of intensity in both types of syntagmas is usually recorded in the last syllable.

Regardless of the communicative type in the analyzed discourses, the outline of intonation is the same - at the beginning, the tone either begins with the middle register or is characterized by maximum reflection. This deviation is almost certainly not observed. An analysis of the language material shows that there is no rise in tone outline at the end of the syntagmas (excluding discourses without question: see: intonogram 3.50, 3.51), or smooth (continuous) tone is not typical or regular tone outline (see: 3.31, 3.34, 3.37, 3.41, 3.45, 3.47, 3.56).

There is no stable correlation between the types and their complementary functions of the intonation outlines of the syntagmas, referring to the acoustic parameters' indicators, that is to say, the prosodic arrangement of discourses with their semantic content

is not advisable. In a dialogue speech, the melodic outline of discourses (replicas) is mostly accompanied by a fall, and in some cases a rise. Taking this factor into consideration, the summit of melodicity is almost characteristic for the stressed syllables in discourse, almost in dialogue. For example: in the discourse of /he ʋəʊ maɪk || 'haʊ α: ju·// (see: oscillogram 3.31), in the discourse of /[he ʋəʊ | klɛə// (see: oscillogram 3.40), in the discourse of /Hello// (see: oscillogram 3.41), in the discourse of /Jes// (see: oscillogram 3.42), in the discourse of [jes] (see: oscillogram 3.52), in the discourse of /jes [i· dʌz// (see: oscillogram 3.55), in the discourse of ɪ'ɡʊd! /'ɡʊd// (see: oscillogram 3.56), in the portion before core, the direction of movement of the tone is smooth, rising in the core, and a sharp fall in the core. Unlike verbal discourses, the tone range for these types of discourses is characteristic, and the melodic peak is localized at the core. In these types of discourses, that is, rising-falling tone outline express a positive state of mind, confidence and determination of the speakers.

Changes in the pronunciation term (length) of syntagmas have revealed the following signs: in compare with progreident syntagma in two syntagmed discourses a weakening of the pronunciation rate in terminal (final) syntagmas are observed, maximum time consumption is seen in nuclear syllables (syllables with syntagma stress drop) (see: oscillogram 3.35; 3.39; 3.44).

In addition, the use of monophthongs and diphthongs in the syllabic structure of words in English does not allow for the precise timing of the

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time parameter, that is, doesn't allow uttering any idea about the exactly expressed communicative determined temporal prosody of intonation-prosody models in English.

The change in the frequency of the main tone is reflected in the melodic outlines of the discourses.

Depending on the nature of the changes tone outlines were defined such as Simple (smooth, rising, falling); compound (rising-falling, falling-rising); complex (falling-rising- falling, rising-falling- rising):

**Intonoqram 3.1.**

- a) rising tone outline in verbal discourses

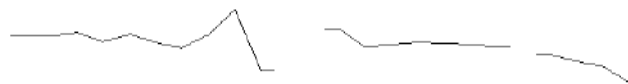


- b) rising tone outline in verbal discourses



**Intonoqram 3.2.**

- a) falling tone outline in non-verbal discourses



- b) falling tone outline in non-verbal discourses



**Intonoqram 3.3.**

Smooth intonation outline in verbal discourses (such intonation outlines were not found in non-verbal

discourses, so this outline of intonation can be regarded as a different sign between them).



**Intonoqram 3.4.**

- a) rising-falling tone outline (as such tone outline was found in verbal and non-verbal discourses, may be evaluated the same tone outline)



- b) falling-rising tone outline (as such tone outline wasn't found in non-verbal discourses may be regarded different tone outline between them).



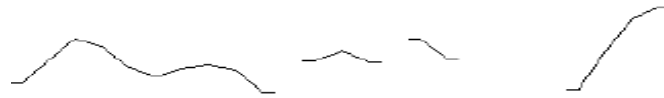
**Intonoqram 3.5.**

- a) falling-rising-falling tone outline



- b) rising-falling-rising tone outline

<b>Impact Factor:</b>	<b>ISRA (India)</b> = <b>4.971</b>	<b>SIS (USA)</b> = <b>0.912</b>	<b>ICV (Poland)</b> = <b>6.630</b>
	<b>ISI (Dubai, UAE)</b> = <b>0.829</b>	<b>PPIHII (Russia)</b> = <b>0.126</b>	<b>PIF (India)</b> = <b>1.940</b>
	<b>GIF (Australia)</b> = <b>0.564</b>	<b>ESJI (KZ)</b> = <b>8.716</b>	<b>IBI (India)</b> = <b>4.260</b>
	<b>JIF</b> = <b>1.500</b>	<b>SJIF (Morocco)</b> = <b>5.667</b>	<b>OAJI (USA)</b> = <b>0.350</b>



The latest two tone outlines are recorded only in verbal discourses. That's why these tone outlines may be considered relevant in verbal discourses.

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