Intonational Division of a Speech Flow in the Kazakh Language

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ABSTRACT
The purpose of this research is to analyze the speech intonation of the French, Kazakh, English and Russian languages. The study considers intonation component functions (of melodics, duration, and intensity) in poetry and language spoken. It is defined that a set of prosodic means are used in order to convey the intonational specifics of sounding speech, the relevant intonational components in combination of utterances. Universal properties of intonation components, linguistic meanings as well as their role in the presentation of sounding speech are identified. The results of the research are based on the experimental data, and on the generalization of general provisions of the theory of intonation in the light of the current trends of general linguistics.

Introduction

The prosodic or intonational research is of a special interest as related to the articulation of the speech flow, the ascertainment of principles of the composition of speech: into what parts it is divided, how these parts connect with each other and what prosodic means participating in the segmentation are relevant in the aspect of semiotics (Flax et al., 1991; Lieberman, 1985).

Prosody, or intonation, is a critically important component of spoken communication (Rosenberg, 2009). It is also widely documented that the function of articulating a phrase into speech segments is usually performed by the logical emphasis singling out separate words in the phrase (Wells, 2014; Fletrcher, 2010).

Considering the problem of articulation of the speech flow into the larger-than-thesentence unities, sentences and syntagms, we ought to pay attention to the fact that they are superposed by the more complex type of segmentation having specific features and functions not sufficiently discovered yet, associated with special means of realization thereof – in particular, with the prosodic means. To put it otherwise, such segmentation takes an optional form and is distinguished by quite peculiar properties both on the semantic level and the prosodic one, i.e., both in terms of the content and the expression (Torsuyeva, 1979). These aspects have been generally considered in our work.

Literature review

Many comparative research papers have been written purposefulness in identifying the prosodic components, and prosody in general which serves as a purposeful interactional instrument between speaker and listener (Hellbernd & Sammler, 2016; Hancil, 2009).

A lot of researchers comparing different languages made valuable contribution to the study of intonation or prosody by their research works. Especially it was discussed in "Prosodic Typology II: The Phonology of Intonation and Phrasing" edited by S.A. Jun (2014). The volume contains detailed description of intonational phonology of typologically various fourteen languages in Autosegmental – Metrical framework. Each point of the volume ensures the prosodic features and intonational categories of the understudied languages as well as the description of prosodic structures.

For instance, C. Gussenhoven & S.A. Jun (2014) as an active researcher of various languages identified the interaction between lexical tone and intonation in the structure of English and Dutch Intonation. S. Gooden (2014) has focused on prosodic classification and intonational phonology of Caribbean English Creole languages.

R. Persson's (2013) research interests cover the wide range of prosody topics of languages in general. S.A. Jun (2014) focused on prosodic typology, the interface between prosody and the different subareas of linguistics and language acquisition. A.M. Karlsson's (2014) research interests are also prosodic typology and interplay between prosody and discourse information structure. She does research on Mongolian, Kammu (Mon - Khmer), Formosan languages Puyuma, Seediq, Bunun.

P. Prieto (2014) is interested in the interaction phonology and phonetics, prosodic phrasing, acquisition of prosody. D.K. Sameer (2014) focuses on South Asian languages, in addition to it he researches prosody, the quality of voice, reduplication. C. Vicenik & S.A. Jun (2014) research interests cover prosodic typology, perceptual development and general phonetics. He has researched the intonation of Tongan and Georgian. B. Remijsen, M. Farienne & R. Severing, (2014) interested in languages that have distinctive lexical stress and lexical tone.

Ways of the notional articulation of speech are also considered in the works of O.V. Dolgova (1974). Studying semiologically relevant ways of speech segmentation, the author recommends to rely upon the following four levels of the syntactical study of a text that correspond to the four objective tiers in the composition of the actual product of speech: a tier of sentence parts, a tier of the

actual sentence articulation, a tier of phrase declamation, and a tier of parenthetic inclusions.

Aim of the Study

There were constantly pointed on the need of comprehensive approach to the study of linguistic phenomena, the study of all language means providing semantic and structural integrity of the text as the highest communication unit considered in the framework of communicative linguistics. However the problem of the interaction of language levels remains poorly understood. Consideration of the linguistic units are usually carried out in the framework of one aspect: syntactic, prosodic, stylistic or lexical. According to this, the aim of our study is to examine the features of sounding speech intonation of the French, Kazakh, English and Russian languages using complex linguistic analysis.

Research questions

What are the main prosodic components used in French, Kazakh, English and Russian languages? Which methods are useful for articulating a speech flow with a further integration of prosodic segments? What are the manifestations of different types and functions of emphasis in language?

Method

A method of structural analysis of intonation is widely applied in present-day experimental and phonetic works. This method is effective for the integral analysis of all interrelated components of intonation, the study and description of distribution of physical characteristics of sounds in speech flow (nuclear tone frequency, intensity and duration) was developed and introduced by Russian scientists-linguists. Auditing and instrumental methods of research as well as computer processing of data have been used in the work.

The determination of technique and methods of articulating a speech flow with a further integration of prosodic segments is the basis in the development of theoretical principles of an automatic recognition and synthesis of speech. Currently, based on theoretical data obtained from the study of an intonational structure of the Kazakh speech, ascertaining specifics of the semantic and intonational articulation of a speech flow by a degree of importance of segments, and also describing a set of intonational units, work is in progress in order to recognize and synthesize prosodic characteristics of speech. In this regard, one can address to how the problem is approached in German (Fuchs et al., 2015). The phrase structure is closely related to its phonetic shape – specifically, it determines the intonation contour of the utterance represented (Chomsky, 2006).

Data, Analysis, and Results

We have defined two levels of prosodic phrasing: the intermediate phrase and the intonational phrase. The presence of a prosodic phrase boundary is indicated by perceived disjuncture between two words. Intonational phrases boundaries are defined by the highest degree of disjuncture, and are often associated with silence. Each intonational phrase is comprised of one or more intermediate phrases (Rosenberg, 2009).

If we compare the following sentences we can notice close correlations between prosody and semantics. "Таңертең оқушылар мектепке кетті" (Early in the morning students went to school). In this phrase, any word may be emphasized subject to the communicative situation. 1. "Таңертең мектепке оқушылар кетті" (Students went to school early in the morning). 2. "Таңертең оқушылар мектепке кетті" (Early in the morning students went to school). 3. "Мектепке оқушылар таңертең кетті" (the morning students went to school).

In the Kazakh language, a logical emphasis is conveyed by the following two methods: firstly, by changing the word order, i. e., by the inversion where the logically emphasized word is at the end of a phrase next to predicate, secondly, by changing no word order where the speaker, or the reader emphasizes a word important by sense. It has also been stated in research of S. Fuchs et al. (2015), as in order to investigate which information listeners use to identify turn ends, several researchers have presented participants with speech fragments, asking them to predict whether the speaker would continue after the fragment or stop speaking. Being one of the main components of intonation, the logical emphasis is, along with the word order, a mouthpiece of the actual articulation. The basic function of the logical emphasis is to emphasize a rheme, which is a psychological predicate (logical predicate) of the phrase.

Theme and rheme intonational relations show themselves as follows: theme shall be characterized by the increase in the tone, after which there is a pause and a break of the intonation contour while rheme, being emphasized is singled out by the reduction of the tone. Prosodic features act here as semiotic means used by the speaker in compliance with his intention to represent some elements of the phrase as initial ones, which are less important, and the others, as a purpose of communication as such, like that new one, for which the communication act has occurred. In case of a neutral style, the topic coincides with a group of the subject, and the rheme – with a group of the predicate.

"Ертең біз өзіміздің ауылға // жаяу барамыз. Қалай?"

(Tomorrow we go to our village // on foot. How?)

"Ертең өзіміздің ауылға жаяу // біз барамыз. Кім?"

(We go // to our village tomorrow. Who?)

"Біз өзіміздің ауылға жаяу // ертең барамыз. Қашан?"

(We go to our village // tomorrow. When?)

In the aforesaid examples, in the first paradigm the rheme answers the question: "Қалай?" (How?). In the second paradigm – the question "Кім?" (Who?). In the third paradigm – the question "Қашан?" (When?). Sentences with one and the same lexical filling in different speech situations may act as different phrases and be understood in a different way by logically singling out one of the words, with which the interest of the interlocutor is associated, who wishes to obtain some information (Bazarbayeva, 2008).

It is the question put to this phrase that helps to determine theme and rheme. That part of the information of the phrase, which is in the question, is related to the topic, and the part of the information, which answers the question, is related to the theme. N. Chomsky (2006) analyzes and illustrates an importance of that in the very similar way. He says that the effect of such intonation on presupposition is fairly complex. In the sentence "The Yankees played the Red Sox in Boston" with normal intonation, the point of main stress

and highest pitch is the word "Boston" and the sentence might be an answer to such questions as "where did the Yankees play the Red Sox?" ("in Boston"); "what did the Yankees do?" ("they played the Red Sox in Boston"); "what happened?" ("the Yankees played the Red Sox in Boston"). But suppose that contrastive stress is placed on "Red Sox," so that we have "The Yankees played the red sox in Boston." Now, the sentence can be the answer only to "Who did the Yankees play in Boston?" Note that the sentence presupposes that the Yankees played someone in Boston; if there was no game at all, it is improper, not just false, to say "The Yankees played the red sox in Boston." In contrast, if there was no game at all, it is false, but not improper, to say "The Yankees played the Red Sox in Boston," with normal intonation. Thus contrastive stress carries a presupposition in a sense in which normal intonation does not, though normal intonation also carries a presupposition in another sense; thus it would be improper to answer the question "Who played the Red Sox in Boston?" with "The Yankees played the Red Sox in Boston" (normal intonation). The same property of contrastive stress is shown by the so-called cleft sentence construction. Thus the sentence "It was the Yankees who played the Red Sox in Boston" has primary stress on "Yankees," and presupposes that someone played the Red Sox in Boston. The sentence is improper, not just false, if there was no game at all. These phenomena have generally been overlooked when the semantic role of contrastive stress has been noted.

Let's give some more examples where the correlates of the logical emphasis are informative in conveying words, which are the most important by sense: 1. "Ерте заманда // Ерназар деген кісі болыпты" (Not so long before, // a man, called Yernazar, became a noble man). 2. "Ерназардың өзі // бай болыпты" (Yernazar himself // became a rich man). 3. "Төрт түлік малы // сай болыпты" (Now, he has a lot // of domestic animals). 4. "Ерназардың сегіз ұлы да // соның ішінде кетіпті" (His eight sons // also became rich).

We examine that in the first three examples the logical emphasis is localized on the emphasized words "кісі, бай, сай" being in the composition of a rheme. The logically emphasized words are characterized by the maximum (peak) values of the frequency of the basic tone, intensity and duration. In the fourth phrase, the topic is in the postposition towards the rheme that proves the stylistic colouring of the phrase. The rheme "Ерназардың сегіз ұлы да" (His eight sons also) being in the preposition is characterized by the more powerful acoustic features. The accentualy emphasized words "сегіз ұлы да" (eight sons also) are characterized by the maximum values of acoustical, dynamic and temporal features. Thus, accents and stresses are of a great importance in the division of the speech flow in phonetics and phonology (Gussenhoven & Jun, 2014), and what is more in contextual distribution and interpretation of prosody (House, 2009).

The notional articulation by a degree of importance supposes the availability of such element in phrases, which is the most important for the speaker, that is to say, in addition to the two notional elements: the current and the new ones, theme and rheme, the subject and the predicate, such elements can be seen, which do not suit these definitions. But, to better understand what is theme and theme in conversation J.C. Wells (2014) says that it is hard to find robust evidence from studies of naturally occurring talk that speakers and listeners actually make use of tonal contrast to convey meanings.

Based on the other different principles, the division by a degree of importance has some advantages since one cannot always identify the subject and the predicate in a phrase, besides, in case of such an approach, no element remains beyond the scope of the analysis

In different languages, elements of the scale may be placed in a different order. For the Kazakh language, the most important element, as a rule, will be placed at the end of a phrase. Let's give as an example the following phrase: "Үй салуға, мәселен, түрлі зат керек" (To build a house, for instance, it is necessary to have different materials). The gradation by a degree of importance will, according to I.G. Torsuyeva (1979), be as follows – V2, V3, V1 where the most important component will be - V1 – түрлі зат керек (it is necessary to have different materials), and the second by a degree of importance will be the element V2 – "үй салуға" (to build a house), and the third one – V3 – "мәселен" (for instance). If there are two elements equal by importance in a phrase where the third one is available, which is less important, the scales will acquire the following structure: V1V2V1, V1V1V2, V2V1V1. Analyzing the prosodic means participating in the gradation by a degree of importance, I.G. Torsuyeva (1979) thinks that the scale of elements by a degree of importance is typological in spite of the fact that «in different languages one and the same combination may characterize V1 in different communicative types». For example, in exclamation, V1 in the Russian language is characterized by the same prosodic means as V1 in narration in the French language. V1 of the Italian narrative phrase corresponds to V1 of the Russian general question etc. In addition to the intonation, which plays a pivotal role in expressing a meaning by a degree of importance, lexical and grammatical means (particles, repeats).

The phenomenon of the accentual emphasis is of interest to us in terms of its link with the intonational structure of a phrase. Various types of the accentual emphasis in combination with other prosodic means play a key role in the process of communication. The accentual emphasis marking a word, which is important by sense, may take up any position in the phrase. Having an effect on the phrase, it is used to attract attention to a particular word: "Өзең! Өзең! Арғы қабақта жол жатыр. Ел жақын ғой!" (Zh. Aimauytov); (River! River! There is a road on the opposite bank. Near are people! (Zh. Aimautov).

At the beginning or in the middle of a phrase, articulation is characterized by the maximum values of frequency of the basic tone, duration and intensity. But if the emphasized word is at the end of the phrase, its intonational characteristics are only realized due to the time and dynamic maxima. Irrespective of the position held, emphasized words are characterized by substantial intervals at the junction with the other words in the phrase.

Discussion and Conclusion

The problem of articulation of the speech flow may be considered from different positions and in different aspects, being of a keen interest to such scientists-linguists as engaged in solving problems of the science of speech. As related to the so-called pragmatic turn in linguistics, the attention of linguists is focused on a detailed study of the real products of speech with all their complexity and variety: what the role of the communicative situation is, what principles of the composition of speech are, into what parts it is divided, how these parts connect with each other, and which of different ways of its

segmentation are semiologically relevant ones. Formation of a new paradigm in studying voice communication is associated with a theory of speech communication and psycholinguistic research. The task of intonologs is to ascertain, accumulating new trends in the linguistics, what function is performed by the melodic, temporal and dynamic means of intonation not only in the notional articulation of the speech flow, but also in the speech activity, in the broad sense of the word, in interrelation with extratextual factors.

Problems and methods of studying the Kazakh intonation, which is an independent level of the language structure, were considered from the position of a system and functional approach, which proposes to study a variety of internal properties and meanings conveyed by the intonation, and its links and relations with other phenomena of the language system, the part of which it is. The language system consisting of a number of interrelated subsystems takes on new properties and features in the integration of new elements. A complex system and functional approach to the prosodic phenomena provides, to our opinion, a comprehensive and all-around study of speech properties in the field of the superfix phonetics and formation of a linguistic view, which enables to value the language in all variety of its manifestation.

It should be noted that the problems associated with the study of language universals have always been held a prominent place in the linguistics and have been studied at all levels of the language system. Universals in the field of intonation are studied the least of all, though some linguists offer an opinion that the intonational level must be of general purpose at its core. Some general features of the intonation of different languages can be explained, apparently, by the international character of the thinking of all people, and the intonation, as compared to other linguistic phenomena, associated with the meaning to a greater degree. That can also be said that semantic prosodies demonstrate some relationship with transitivity and in the case of build up, at least, this relationship is demonstrably consistent computationally within large corpora (Louw, 2000), relationship between prosodic variables and communicative functions Flax et al. (1991).

Nikolayeva (1982) associates the actual articulation with the accentual emphasis and prosodiacally emphasizing any element, proposes a number of statements as follows. 1. There is a basic accented element in any phrase. 2. As usual, this element is at the end of the sounding time span. 3. Generally, there is a rheme at the end of a phrase. 4. Therefore, this emphasized element is associated with the rheme, and it's possible that it cannot be separated from the rheme. 5. Thus: where there is a rheme in the phrase, there must be a strong stress. 6. And vice versa: where there is a strong stress – there is a rheme. 7. There are some words (for example, particles) entailing there is an actual exphasis of the words associated with them. 8. Thus, they are emphasizers of rhemes (where it is loud, there is a rheme). 9. Rheme is a new, known and important thing. 10. So: the new thing is stressed, and the old thing is unstressed. 11. The basic stressed word is an intonational centre. 12. Therefore, where it is loud, there is Rheme, and there is an intonational centre in the same place. 13. The stressed element may have a contrastive meaning. 14. The contrast is a foregrounding, and an expressive alternant of the same compulsory stressed component – Rheme. As it is seen from the statements, the integral link between the accentual amplification and the rheme is one of the keystones of the

actual articulation theory of general purpose for all languages, but having its specific laws for each language.

On a fundamental level, the research paradigm is aligned with the conversation analytic premise that meaning – prosodic or otherwise – is socially constructed, and continuously negotiated and shared by participants. This notion is in stark contrast to other approaches which treat prosodic meaning as cognitively pre-existing in the form of an intonational lexicon (Reed, 2011). There are also other ways of the notional articulation, for example, articulation by a degree of importance (Torsuyeva, 1979).

As it is seen from our research, according to the formal matter, the Kazakh intonation has its own specific features which differ it from other languages. Typological works in the field of intonation is, undoubtedly, of value both on the theoretical level – in the development of the universality and intonology, and on the practical level: in the teaching and the instruction of an intonation belonging to another language.

To sum up, the intonation, performing functions of organization and articulation of elements of speech (text), and of expression of a degree of link between them, segments them into the notional elements. In the segmentation of speech, rythmic, syntagmatic, phrase, logical and other kinds of emphases are prominent having an influence upon the meaning of phrases.

The logical emphasis is an all-purpose way of expressing the actualization, which may actualize any component of the phrase subject to the communicative situation. The actual articulation is one of the kinds of the notional articulation. Moreover, the logical emphasis being the accentual embodiment of a latent presuppositional category overlaps the phrase emphasis – the basic prosodic means organizing the phrase in general.

In conclusion, in the Kazakh language, a logical emphasis is conveyed by the following two methods: firstly, by changing the word order, i. e., by the inversion where the logically emphasized word is at the end of a phrase next to predicate, secondly, by changing no word order where the speaker, or the reader emphasizes a word important by sense.

In the speech flow, any word may be emphasized by sense in evocative phrases. The logical emphasis is closely connected with the meaning of the word, on which it is localized. The logically emphasized word usually has a clear articulation in the speech flow.

Implications and Recommendations

The results of this work may substantially deepen, supplement and in particular cases adjust the already known rules for the role and the meaning of an intonational level attracting data of the Kazakh intonational system not studied yet, and will allow us to interpret some aspects of the general theory of intonation in a new way. In our work, we've made an effort to cover facts and phenomena as many as possible, which regard problems of the superfix phonetics, however, some interesting, to our opinion, aspects are considered just fragmentarily, having been not covered in detail; the detailed study is a task of the future.

A further research in the field of the intonology may be conducted in view of a typological research of the intonation of kindred and non-kindred languages to find out typological rand all-purpose features in their intonational structure.

In future, one should pay attention to a detailed research of the intonational structure of a text (discourse) describing not only linguistic but also extratextual factors which influence the selection of means in the integrated prosodic characteristic of speech in view of the theory of speech activity, pragma- and sociolinguistics that would comply with the modern trends in the development of linguistics.

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No potential conflict of interest was reported by the authors.

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