The Intonation System of Tajik: Is it Identical to Persian?

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Abstract

Tajik is an under-resourced language from the point of view of the intonation systems description, so the available descriptions of this system can't be used in the comparative linguistic studies. Since some researchers consider the intonation systems of Tajik and Persian to be identical, the use of the description of Persian intonation could be the solution for the issue, but the question of whether these systems are really identical remains open. The article deals with the problem if the choice of the Persian intonation description (by Nami Tehrani) for the research of Russian-Tajik intonation interference was acceptable and to what extent.

1. Introduction

This research is devoted to the problem that arose during the study of the interference dynamics in the speech of bilinguals who speak Tajik and Russian. For the analysis it was necessary to compare the systems of two different languages and to determine the potential interference. However, the analysis of scientific literature revealed that the Tajik language is an under-resourced language in terms of the intonation system description. Then it was decided to choose a detailed description of the intonation system of the Persian language, made by Nami Tehrani. This article presents the results of the study if the description of Persian intonation system can be used for analysis of the Tajiks'speech and if the systems of Tajik and Persian intonation are identical.

2. Is Tajik a dialect or a separate language?

Iranian languages are a group of languages of the Indo-European family. Iranian languages are widespread in the Middle East, Central Asia, North America, Europe, Pakistan and the Caucasus among the Iranian peoples [11]. Persian, Dari, Kurdish are the most widely spoken languages.

Now on the territory of Iran, Afghanistan and Tajikistan there are three closely related languages: Persian, Dari and Tajik. The languages that use the Persian alphabet (Arabic script supplemented with several characters for sounds that are not in Arabic) are more similar: Persian and Dari. However, understanding between native Tajik and Persian-speaking residents of Afghanistan and Iran is still possible [9].

Tajik language is the language of the Tajiks of Central Asia, the official language of Tajikistan. It can be considered as a North-Eastern variant of the Persian language. The problem «Is Tajik a dialect or a separate language?» had a political side [6].

The literary Tajik language differs significantly from the Persian language only phonetically, and the introduction of the Cyrillic alphabet in 1939 consolidated these differences. The Tajik language is more archaic in comparison with the Persian language in terms of vocabulary and phonetic phenomena. On the other hand, conversational speech to some extent was subjected to Turkic (primarily Uzbek), and since the XX century also to Russian lexical influence. Tajik phonology differs significantly from Persian, but is almost identical to Uzbek due to the long-term substrate interaction with the Uzbek language.

3. Interference phenomena in Tajik

The subject of this study is the interference pattern due to the interaction of the systems of Russian and Tajik languages. The term "interference " is used in the works of the Prague school. Uriel Weinreich called interference «cases of deviation from the norms of any of the languages resulting from the possession of two or more languages due to language contact» [10, p. 29]. According to E. Haugen, interference is «cases of deviations from the norms of the language, appearing in the speech of bilingual speakers as a result of acquaintance with other languages» [2].

The main source of phonetic interference is differences in the systems of interacting languages: different phonemic systems, different rules of phonemes positional realization, their compatibility, different intonation. The interaction of the two languages is undeniable: thus, the Russian speech of the Iranian speakers acquires certain phonetic properties related to the phonetic and phonological characteristics of their native language. As a result of such interaction, there is a specific variant of the Russian language (at least its oral version)[5]. One of the objectives of this study is to identify potential speech features of bilingual Tajiks who speak Russian.

Bilingualism among representatives of the peoples of Tajikistan is a mass and rather complex, multi-level phenomenon. For the linguistic situation of Tajikistan is characterized by the presence of a large number of dialects and sub-dialects (more on this in the relevant section) that generates internal interference of the system [3, p. 245].

The speakers, whose speech recordings were used in this study, were not born in Russia, but at the time of the experiment lived in St. Petersburg and had to speak Russian. Some of them studied Russian while living in Tajikistan. In Tajikistan nowadays Russian is widely used in science, business and media, it is taught in schools and universities. But it is important to note that during the Soviet period the Russian-speaking population was about 10% of the population, now it's no more than 1%. With rare exception, the Russian language is taught by Tajiks. According to experts, Russian is well taught in schools in Dushanbe (the capital of the country) and a number of other cities, but in many villages it is taught quite formally. At present, there is a considerable flow of resettlement from rural areas to cities

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and the inhabitants of villages significantly change the language continuum of cities [7].

4. Intonation in Persian and Russian

A detailed description of the intonation of the Persian language is presented in a number of works, one of the most complete and detailed studies of prosodic characteristics of the Persian language was carried out by Nima Sadat-Tehrani [8], on the basis of which the material will be further described. According to the above-mentioned study, two types of prosodic components are distinguished in the prosodic structure of the Persian language. The accent unit is the minimum intonation unit of the Persian language. A syntagma is formed from one or more accent units.

On the basis of the research of speech recordings conducted in the framework of the work on the Nima Sadat-Tehrani's thesis [8], it was found that there is a certain accent model for all statements in the Persian language. This model consists of a low tone (L) followed by an increase in tone (H), which forms the tonal accent L+H*, implemented on the stressed syllable. From the point of view of speech perception, the location of the center of the intonation phrase at a high level coincides with the word stress in Persian.

Figure 1 shows the pitch contour for the realization of the phrase hævá emrúz æbrí-ye "today is cloudy". A pronounced peak prepares the stressed syllable accentual phrase. The center of the accent phrase is underlined. Such CI is implemented in neutral realizations of statements in the absence of additional emphasis.

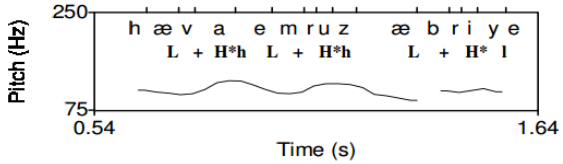

Figure 1: Implementation of a statement «hævá emrúz æbrí-ye» («It's cloudy today»).

The statement consists of three accentual phrases that are implemented with the peaks of the type L+H*, followed by low level tone. Each accent phrase is implemented at a level below the previous one due to declination, gradual lowering of the pitch throughout the statement.

The work of Nima Sadat-Tehrani [8] also provides a detailed table with a description of the implementation of intonation circuits of different types. The excerpts from this table, which are relevant to this study, are provided below. The table uses symbols:

* - tonal accent
% - start or end of a statement
To indicate the tone level:
H (high)
M (middle)
Low (low)
n - number of accent units

- ((L+)H*h)n (L+)H*l L% n = 0,1,2,...

The main communicative function of this accent is completeness, imperatives.

- ((L+)H*h)n (L+)H*l H% n = 0,1,2,...

The main communicative function of this accent is a yes/no question, special question.

- ((L+)H*h)n H% n = 1,2,3,...

The main communicative function of this accent is incompleteness.

- L+H*h L%

The main communicative function of this accent is vocative.

According to some researchers, the intonation system of the Tajik language is identical to the intonation system of the Persian language [1].

Transcription of the Russian intonation (TORI) was compiled by Cecilia Ode [4]:

- H*L L%

The main communicative function of this accent is a yes/no question (without question word). Other communicative functions are: a continuation, a contrast, prominence (strong emphasis) in narratives and statements. It may also express a repeated question, a repeated wh-question and an alternative question.

- H*H %

The main communicative function of this accent is incompleteness. Other functions are: a continuation in a closed enumeration, a positive qualification, an exclamation.

- H*M %

The main communicative function of this accent is incompleteness. Other functions are: continuation in narratives, continuation in an open enumeration, vocatives (calling from a distance). It may also express a puzzled reaction, a meditation.

- L* L%

The main communicative function of this accent is completeness. Other functions are: neutral finality, a completed sentence or paragraph, a confirmation, answer to a question, an enumeration.

- HL* L%

The main communicative function of this accent is completeness with emphasis. The raised peak in particular is associated with emphasis. Other functions are a wh-question with narrow focus, an imperative, addressing someone near you.

- L*H %

One communicative function of this accent is an elliptic question. Other functions are: polemic answer, summons, enumeration, incompleteness, imperative question.

5. Analysis of Tajik-Russian interference in the speech of bilinguals

5.1. Speakers and data

This section presents the results of the study, the purpose of which is to identify whether there is a dynamics of Tajik – Russian interference in the speech of bilingual speakers at the suprasegmental level.

The study was conducted on the material of spontaneous speech and reading. The material of the study was the recording of spontaneous speech and reading of ten students (7 boys and 3 girls) aged 19 to 23 years living in Russia from six months to 7 years:

- Irdas, 20 years old, six months in Russia, Samarkand (Uzbekistan)
- Akmal, 20 years old, 1 year in Russia, Khujand
- Avazbek, 23 years old, 2 years in Russia, Samarkand (Uzbekistan)
- Mehrangez, 20 years, 2 years in Russia, Khujand
- Mukhammadali, 20 years old, 2 years in Russia, Khujand
- Shatnem, 19 years old, 2 years in Russia, Kanibadam
- Eziz, 19 years old, 3 years in Russia, Ashgabat (Turkmenistan)
- Ali Akbar, 19 years old, 4 years in Russia, Dushanbe
- Safina, 21 years old, 4 years old in Russia, Dushanbe
- Behzod, 21 years old, 7 years in Russia, Dushanbe

Most of the speakers lived in Tajikistan (Dushanbe, Khujand, Kanibadam), two of them lived in Uzbekistan (they speak Tajik language with their families and friends), one speaker was born in Turkmenistan (speaks Turkmen and Tajik languages). All the speakers went to «Russian schools», where some subjects were taught in Russian, which allowed them to enter educational institutions in Russia. Only for one of them (Eziz, 19 years) Russian was the main language spoken in the family. Two speakers (Akmal, 20 years) and Mehrangez (20 years, 2 years in Russia) used the Russian language to communicate in the family. For the remaining speakers of the Russian language – the language they studied in school. For the experiment, the speakers were asked to read the text, which reflects the most typical implementation and combination of Russian phonemes. Most of them also answered the interview questions, with the help of which a spontaneous speech was received. The topics of the interview were family, studies, plans for the future. The duration of the dialogues was not limited. The answers of the speaker to the questions of his interlocutor were recorded. Thus, we received records of spontaneous speech, the genre of which can be defined as a monologue (as to spontaneous monologues include interviews, in which the replicas of the second communicant are minimized). The recording was carried out in 2016-2017.

5.2 Methodology

The subject of this research was melodic intonation contours. The object of the study is the dynamics of interference in the speech of bilingual speakers at the suprasegmental level. In the course of the work, primary auditory analysis and instrumental acoustic analysis were carried out. Wave Assistant (version for students, Copyright 2001-2005, the Center for Speech technology) was used for plotting the main tone. The basic tone marks were set automatically and corrected manually (the marks on noisy consonants were removed and the errors affecting the quality and informativeness of the graphs were corrected).

For each syntagma the type of intonation model was determined by Cecilia Ode classification [4]. In the vast majority of cases for this task, both types of analysis were used simultaneously – auditory and instrumental, since this method of research was the most appropriate. For further analysis, we selected 490 the phrase from spontaneous speech and 1214 from the reading. For each syntagma, a melodic contour was analyzed. The data was statistically processed. For each informant, the percentage of marked deviations from the pronouncing norm in relation to the theoretically possible was calculated. Comparison of the results obtained from informants allows to reveal those elements of the Russian pronunciation norm, the distortion of which is the most stable.

5.3 The inventory of intonation patterns in the speech of Tajiks

It is worth paying attention to the inventory of intonation structures in Persian: completeness is realized with the fall of the basic tone (several accent units in the syntagma in this study were considered as separate syntagmas), which coincides with the L% in the Russian language. Prominence is realized with the fall of tone and increase of intensity, which coincides with H*L in the Russian language. Incompleteness, general and special questions are realized with prosodic structure, reminiscent of H*L, the incompleteness is also often implemented with a smooth tone (the norm in the Russian language). However, in the Tajik language, no intonation patterns that are similar to the H*H, H*M, L*H, HL*.

For each of the speakers were obtained diagrams illustrating the relationship of intonation models in his speech.

Eziz, the speaker, whose speech diagrams are shown in figures 2 and 3, speaks Russian from birth, in his own words he knows Russian better than Tajik or Turkmen. In his speech there are realizations of H*H and L*H, for the realization of issues and incompleteness, his repertoire of intonation constructions is the largest among all speakers.

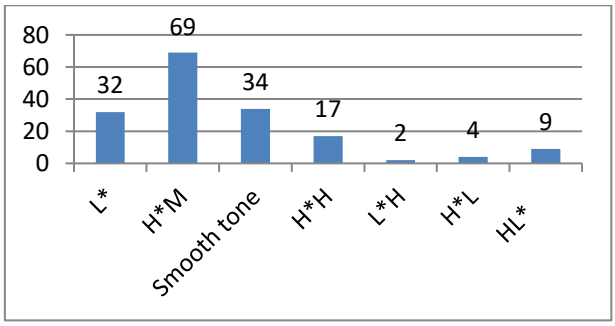

Figure 2: Number of implementations in spontaneous speech (Eziz).

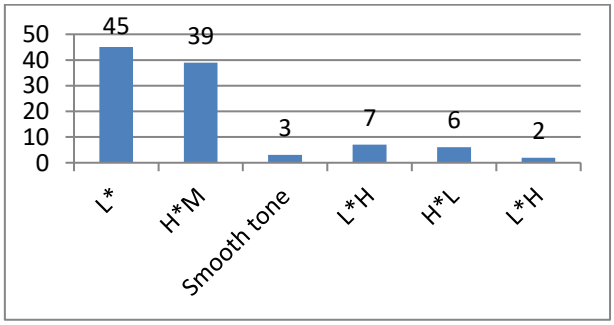

Figure 3: Number of implementations in reading (Eziz).

Akmal lives in Russia only for 1 year, but he uses Russian language for communication in the family on an equal basis with Tajik. The ratio of intonation constructions in his speech are presented in figures 4 and 5. In his speech, there are also syntagmas with H*H and L*H.

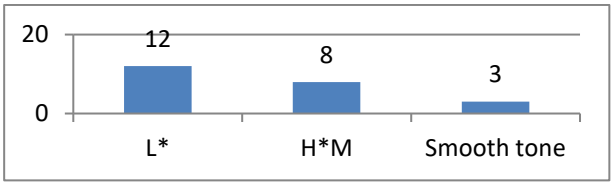

Figure 4: Number of implementations in spontaneous speech (Akmal).

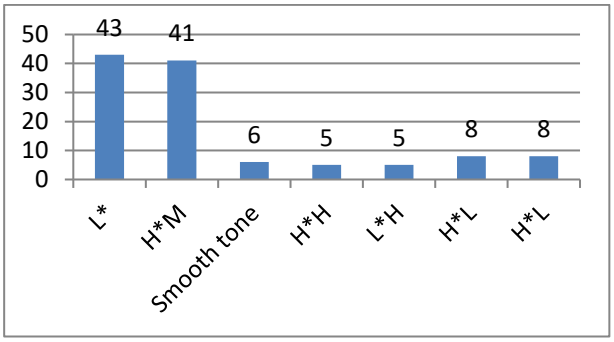

Figure 5: Number of implementations in reading (Akmal).

Speaker Mehrangez also speaks Russian and Tajik in the family. Figure 6 shows the ratio of intonation structures implementations.

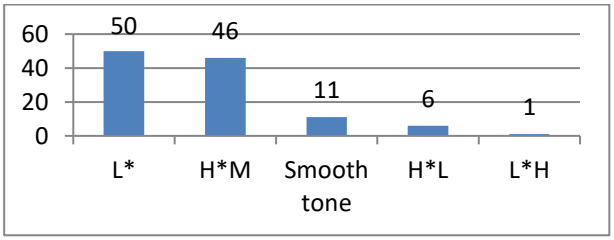

Figure 6: Number of implementations in reading (Mehrangez).

Behzod longer than all the other speakers who speak Russian only at school, lived in Russia. However, in his speech, there are practically no intonation constructions, which are not in Persian language. Diagrams for his speech are shown in figures 7 and 8.

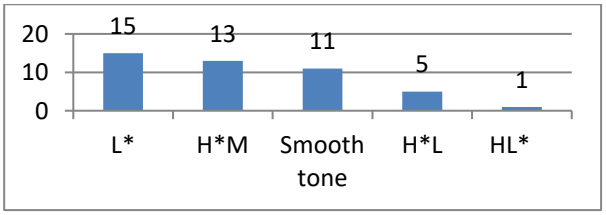

Figure 7: Number of implementations in spontaneous speech (Behzod).

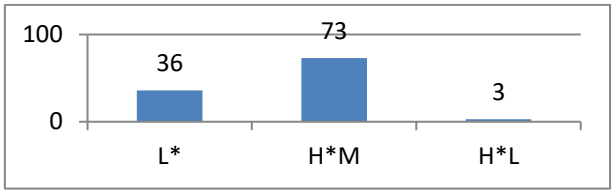

Figure 8: Number of implementations in reading (Behzod).

Ali Akbar lives in Russia for 4 years, in his speech there are the implementation of H*H. Diagrams for his speech are presented in figures 9 and 10.

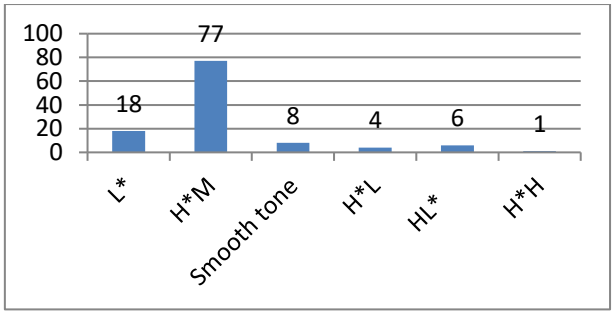

Figure 9: Number of implementations in spontaneous speech (Ali Akbar).

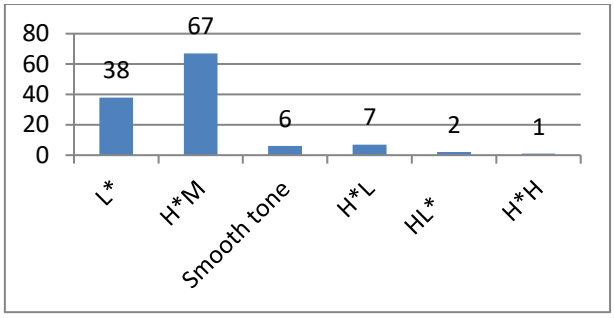

Figure 10: Number of implementations in reading (Ali Akbar).

Safina has been living in Russia for 4 years, she uses only intonation structures, which coincide with those in her native language. Diagrams for his speech are shown in figures 11 and 12.

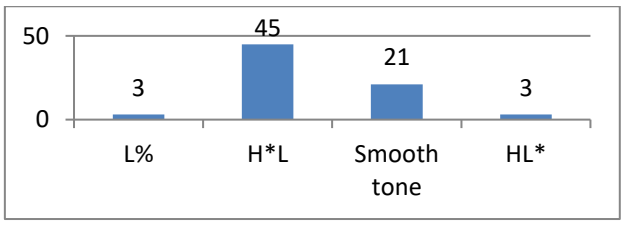

Figure 11: Number of implementations in spontaneous speech (Safina).

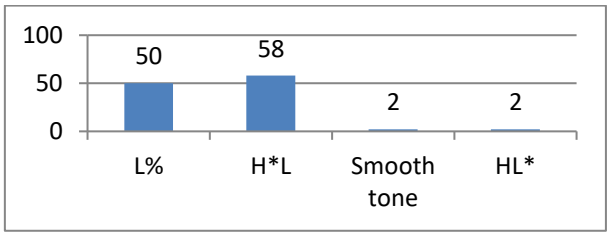

Figure 12: Number of implementations in reading (Safina).

Most of the speakers live in Russia for about 2 years. In the inventory of the speaker Shatnam, there aren't intonation structures that are not in Persian. Diagrams for his speech are shown in figures 13 and 14.

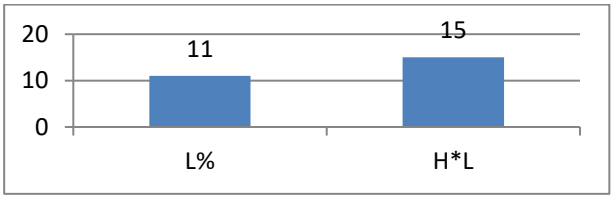

Figure 13: Number of implementations in spontaneous speech (Shatnam).

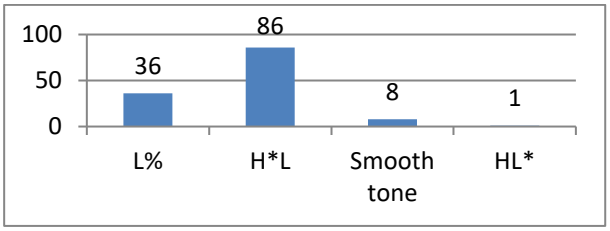

Figure 14: Number of implementations in reading (Shatnam).

Only reading was analyzed for speaker Muhammad. Diagrams for his speech are presented in figures 15.

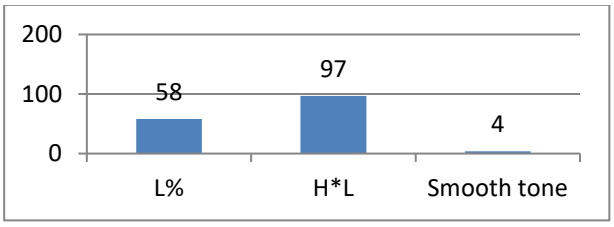

Figure 15: Number of implementations in reading (Muhammad).

Speaker Avazbek lives in Russia for 2 years. Diagrams for his speech are presented in figures 16 and 17.

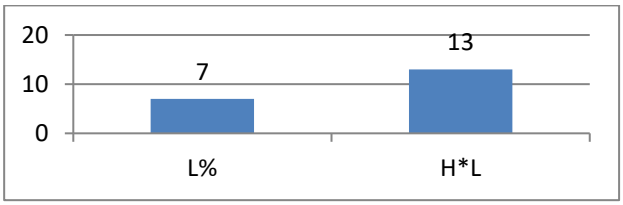

Figure 16: Number of implementations in spontaneous speech (Avazbek).

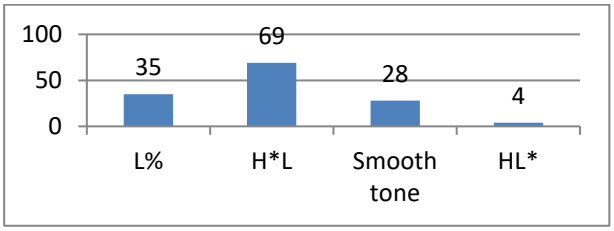

Figure 17: Number of implementations in reading (Avazbek).

Figures for the speech of Irdas presented in figures 18 and 19.

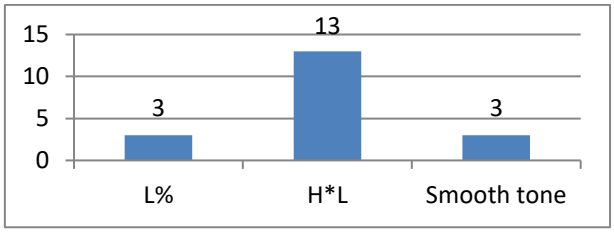

Figure 18: Number of implementations in spontaneous speech (Irdas).

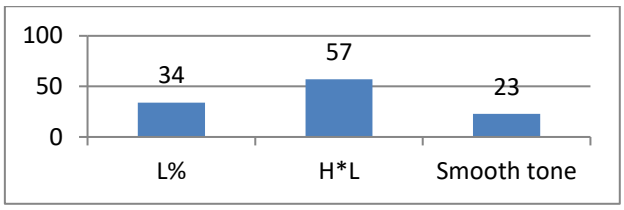

Figure 19: Number of implementations in reading (Irdas).

Thus, the majority of speakers implements a limited inventory of intonation structures in their speech (L*, H*L and smooth tone). All these intonation contours are in the Russian language, however, speakers do not use those Russian intonation structures which can't be found in Persian. For example, instead of H*M speakers, who have lived less than two years in Russia, use H*L (in the Persian language H*M is absent). The speakers did not use such contours, which are not in Persian or in Russian. Based on this, it can be assumed that the inventory of intonation constructions of the Persian language is suitable for the analysis of the Tajik language.

6. Conclusions

The speakers living less than 2 years in Russia implemented a limited inventory of intonation constructions in their speech (L*, H*L and smooth tone). In the speech of those who has been speaking Russian since childhood in the family, and in the speech of those who live more than 2 years in Russia there are more different intonation constructions (due to the influence of their knowledge of Russian). Other intonation constructions, which would not exist in the Persian and Russian language systems, haven't been identified. The Persian intonation system can be used to analyze the speech of Tajiks, since most errors in the Russian language of Tajiks are well explained, based on the description of the Persian system. This may be an indirect proof of the fact that the intonation systems of Persian and Tajik are quite similar. Of course, further research will be needed to answer this question accurately.

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