

Foreign Language Accent and Prosody in the Context of Cross-cultural Multilingualism

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Abstract

The article is devoted to the problem of prosodic interference in the situation of artificial (i.e. classroom) multilingualism, which is characterized by interaction of three languages with different prosodic systems. The article reveals how intonational transfer of English special question manifests itself in the speech of students, the bilinguals of the Yakut and Russian languages, who learn English as a foreign language. The results of comparative analysis of English special question, produced by the Yakut-Russian bilinguals, help to find the most probable ways of prosodic interference of bilinguals while learning English as a foreign language.

Keywords: multilingualism, prosody, terminal tone, comparative analysis

1. Introduction

Study on the prosodic interference requires an integrated theoretical and experimental approach, combining theory of interference and research in the field of spoken language prosody.

An impressive number of works on prosodic interference and its influence on the formation of foreign accent proves the significance of research on this subject. In Russian linguistics, a rich scientific tradition is associated with the study of prosodic interference. The originators of this tradition is a group of phoneticists of the Leningrad scientific school of linguistics, headed by L. R. Zinder and L. V. Bondarenko, who stressed the importance of phonological research for the development of a systematic approach to the study of speech activity. Representatives of this scientific school researched phonological and phonetic interference.

The theory of prosodic interference developed in the works of such scientists as A.A. Metluk, G.M. Vishnevskaya, L.G. Fomichenko. The works of 1960s years by A.A. Metluk are considered innovative in the field of studying the interaction between prosodic systems of languages. They formulated the theoretical foundations and methodological principles of the study of prosodic interference. The research of Fomichenko (1998) focused on the study of the cognitive prerequisites for prosodic interference. Vishnevskaya (1985) focused on the study of the prosodic interference in its close causal connection with the problem of foreign accent, to which she considers as complex system and sustainable deviations in bilingual communication.

Until recently, the term 'bilingualism' was most often used in majority of scientific works when the circumstances related to the ownership of two or more languages. Yet, it comprised a number of contradictions, when it came, for example, to the interaction of the three languages in linguistic consciousness of the individual. This interpretation did not take into account various aspects of this complex phenomenon, involving a variety of language environment factors, in particular the mechanism of nucleation and manifestation of interlingual interference. Contact languages certainly enter into the interaction between them and provide each other with the impacts on all levels of the system. Such interaction and mutual influence is usually accompanied by a number of phenomena, the most common of which is interference, having a great influence on the formation of the national-Russian bilingualism. This study is based on the definition proposed by Chirsheva (2004, p. 190), who stated that "bilinguals are those people who are in almost equally speak and understand two languages and use them in their speech activities".

2. Review of Literature

The phenomenon of bilingualism is considered by scientists to be inseparable from the interference. This idea is associated with the names of U. Weinreich, L.V. Shcherba, R. Jacobson, E. Haugen, A. Martin, L.I. Barannikova, N.A. Lyubimova, A. A. Metluk, G.N. Vishnevskaya, J.A. Dubovsky, A.B. Mishin, L.G. Fomichenko, G.N. Chirsheva, I.G. Bubnov, A.I. Rabinovich, Yu.A. Zhlutenko, E.A. Filatova, N.V. Sukhova and many other scholars. Researchers agree that the manifestation of interference is possible at all levels of language, but is particularly noticeable in phonetics. The process of interference is objective and is not dependent on the will of the speaker, despite the awareness of the problem by a bilingual (Uman, 1997).

It is well known that bilinguals as compared to monolingual learn a foreign language faster because of their richer metalinguistic experience. This is due to how the bilingual acquire verbal ability to express the same idea using different language processing, and a better understanding of the systemic nature of language. The idea that bilinguals differ from monolingual by their higher level of metalinguistic competence that enables them effectively learn foreign languages, is proved in the works of Thomas (1988), Cenoz and Valencia (1994), Schmidt (1995), Herdina and Jessner, (2002), and Melhorn (2007). Melhorn (2007) believes that linguistic competence has a positive effect on the process of mastering the phonological system of the third language by a natural bilingual. He explains that bilinguals have a wider repertoire of phonetic means and deeper phonological representations. It is obvious that in the modern conditions of language contact intensification, the question of how natural and artificial bilingualism affects the process of mastering the phonetic system of foreign languages is very important.

One of the key issues that appears in the study of a foreign accent in the foreign language context of cross-cultural perspective is the issue of the communicative effect on native speakers. As noted by Vishnevskaya (1985), deviations from the norm of pronunciation is perceived by native speakers as a 'foreign' non-native speech, which can be ambiguously evaluated by the recipient. Incorrect prosodic utterance can completely distort the value of what is said, because the dominance of the prosodic system of the native language is the strongest and is associated with psychophysiological development of speech. The presence of the prosodic characteristics of native language in speech in a foreign language becomes an unwitting reason for the creation of negative communicative effect. Incorrect interpretation of the received information is also associated with understanding through the prism of the native language.

3. Research Design

This article discusses the phenomenon of interference on the prosodic level, resulting from the interaction of the phonetic systems of their native (Yakut) and nonnative (Russian) languages in bilingual speech when learning a foreign language, that is, a situation of artificial (i.e. classroom) multilingualism.

The utterances produced by the Yakut-Russian bilinguals can have incorrect intonation as compared to the conventional Standard English (i.e. British normative language – Received Pronunciation) in the process of foreign language communication. The reason for this phenomenon is the number of factors, primarily the influence of the prosodic system of the native (Yakut) language. Secondly, this can be facilitated by the prosodic system influence of non-native (Russian) language, which they speak quite freely in both natural and classroom environments. Other linguistic factors also play an important role; in particular, it is characterized by varying degrees of bilingualism, which is owned by the students, a way of mastering them, as well as various extra-linguistic factors.

Each language has its own characteristics and prosodic features of the utterance, that is, each language has its own prosodic base. Prosodic systems of different languages also have their own differences, along with the universal and common typological features. One of the ways to prevent this kind of error is the conscious assimilation of bilingual individual prosodic rules of a foreign language, as the aggregate of the most sustainable, traditional elements of the system, selected and enshrined in the speech of native speakers. This is the essence of the cognitive approach, the position of which is "the use of knowledge first language as a strategy of second language acquisition can be one of the manifestations of the underlying process relying on existing knowledge to facilitate the assimilation of new knowledge" (Bikbulatova, 2001, p. 26). It is necessary to provide conscious analysis based on comparison of systems, languages, since differences between these systems create an area of strongest interfering influences and are the main source of difficulties when learning a foreign language (Toivanen, 2002)

English, Yakut and Russian languages are 'unpitched' languages, but belong to different language groups: English is to the Germanic group of languages; Russian belongs to a Slavic group of languages; and Yakut language to the Turkic group of languages. Thus, one can talk about initially expressed typological differences in prosody of the compared languages.

Intonational deviations in the speech of a speaker enable us to determine a foreigner. Moreover, they are difficult to understand, and often distort the semantic side of the question. In 1922, Harold E. Palmer noted the following in his work "English Intonation with Systematic Exercises": "What is often diagnosed as a foreign 'pronunciation', or foreign 'accent', frequently turns out to be a foreign intonation. Many foreign speakers may be faultless in their English sounds, and even English stress, but they intone in such a manner that we at once detect that they are not English, and often we fail even to understand the meaning of what they are saying. I often have occasion to say to my foreign students: «I quite understand your sentence, as a sentence, but, excuse me, I cannot see what you wish to convey. Was your sentence an assertion, a comment, an exclamation, a contradiction, a corroboration, or a question?»" (Palmer, 1922, p. 4)

Thus, many Englishmen are ready to take no notice of some grammatical mistakes, because it is not perceived by them as a reflection of the wrong attitude of the speaker towards the content of the utterance, and thus contributes much less to the violation of the process of intercultural communication than the mistakes in prosody.

3.1 Experiment

The research is motivated by the following factors:

- The Yakut students who are bilinguals tend to transfer their native language intonation while learning English that can have negative interference with Standard English pronunciation.
- The accent of the Yakut bilinguals in English can have incorrect realization that can hamper perception of the native speakers of British English.
- The results of intonational systems' comparative analysis in comparing languages will help to find the most probable ways of intonational transfer when studying English.
- There is no study on the prosody of English learners with Yakut native language.

To identify prerequisites of prosodic interference in the speech of the Yakut-Russian bilinguals learning English as a foreign language, an experimental phonetic study was conducted. The analysis was carried out on the material read audio English of five dialogues.

This analysis helps to identify the reasons of prosodic interference in observing languages and thereby determine its potential sources. During the experiment, the two groups of subjects were selected:

- Group 1. Speakers, (5 males and 5 females) 3rd year students of the Yakutsk University, who learn English as a foreign language. All speakers of this group were Yakut-Russian bilingual whose first (native) language was Yakut, and the second (non-native) Russian.
- Group 2. Speakers, (4 males and 6 females) students of Cambridge University, the speakers of the southern dialect of British English that is considered standard pronunciation of modern English.

All participants were of the same age group from 19 to 25 years.

The speech data was obtained using pre-written conversational dialogues representing colloquial English. Ten students of Yakutsk University acted out the conversational English dialogues in pairs (5 dialogues of experiment). The participants were allowed to study the dialogues for about 15 minutes before recording and the speakers were allowed to retake any part of dialogue if they were not satisfied with the first rendition. The speakers were advised to produce their speech as naturally as possible simulating natural conversational English.

3.2 Material of experiment

In the context of this article, the acoustic parameters of English special question were revealed in the implementation of the Yakut-Russian bilinguals that can serve as a prerequisite prosodic interference in the speech of the Yakut-Russian bilinguals when processing English speech. The interference is due to the different intonational systems of the compared languages. When processing neutral speech of special question in English, the most characteristic is the Low Fall.

Intonation of special question in Russian language has falling melody and it is called the Russian IC-2, which is characterized by the presence of the intonation center on the first vowel that is stressed and level or falling tone. In the Yakut linguistics the problem of intonation was considered insufficiently in contrast to the Russian and English phonetic schools. The main sources of studies on intonation in the scientific works of the Yakut phoneticians are the works of Alekseev (1982), in which he describes in detail the prosodic system of interrogative sentences in Yakut language.

According Alekseev (1982), it is peculiar to all kinds of the Yakut question intonational contour that the main impact cut of rhythm melody can be emitted by a set of two or three acoustic parameters. As a rule, in all kinds of question a rising or fall-rise movement of frequency of basic pitch and the most duration in a syllable define communicative important

area. Alekseev (1982) suggests there are rhythm-melodic types of models in the Yakut interrogative sentence of special question: M 1. Rising model: neutral question, specifically neutral question, hypothetical question, confirmation question, imperatives, repeat and offer. M 3. Rise-Fall model: neutral question, specifically neutral question, certifying question, double question, clarifying question, echo-question;

4. Research Results

Comparative analysis of the studied material reveals that English utterances of Special question produced by the Yakut-Russian bilinguals are influenced by the previously learned languages. First of all, the interference in prosody is characterized by a narrowing of the gamut; the gamut of the native (Yakut) and non-native (Russian) language has lower parameters of fundamental frequency than in English. The comparative analysis between the groups is represented in figure 1 for male voices and figure 2 for female voices.

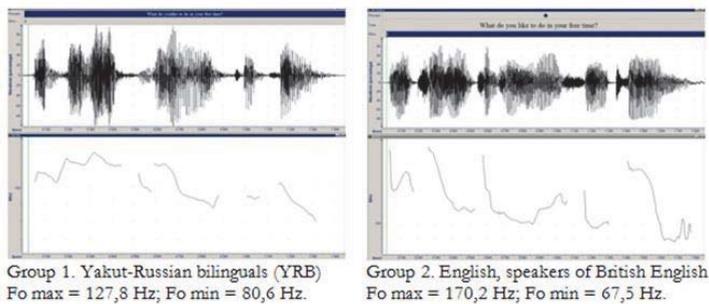


Figure 1. Sample question for male respondents: What do you like to do in your free time?

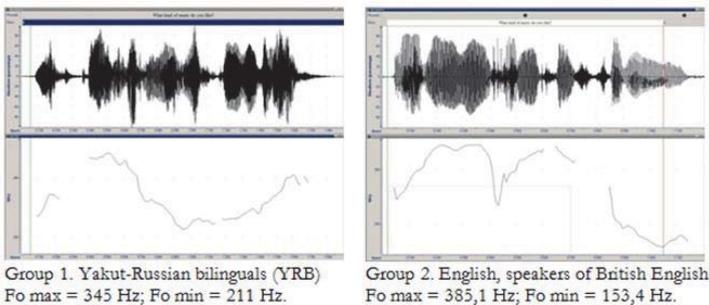


Figure 2. Sample question for female respondents: What kind of music do you like?

Thus, the study of the gamut of tone frequency, that is considered one of the main indicators of speech identification, revealed that the gamut of typical native speakers of English is wider than that of the Yakut-Russian bilinguals. It should be noted that the gamut of the tone frequency produced by male and female voices differ. Next, let us consider the table 1, that shows average indicators of tone frequency in female and male utterances of English special question.

Table 1. Gamut feature of tone frequency in special interrogative sentences (average values for groups of subjects, Hz.)

Gamut indicator of tone frequency	A group of speakers (subjects)			
	Group 1. The Yakut-Russian bilinguals learning English in high school		Group 2. The Englishmen, speakers of British English	
	Males	Females	Males	Females
Fo max	125 Hz	341 Hz	168 Hz	396 Hz
Fo min	78 Hz	195 Hz	66 Hz	138 Hz

The Standard English pronunciation requires the implementation of special question within high tone of the first stressed syllable and a wide gamut, which is proven by the research results presented in table 1. The narrowing of the gamut could serve as a prosodic interference while producing English special question by the bilinguals. In particular, the narrowing of the gamut in speech can change the emotional color, bringing a tinge of distrust.

As already noted, when processing neutral speech special question in English, the most characteristic is the Low Fall. The contours of falling melody are used in the Russian special questions - Russian IC-2. While the special question in the Yakut language has slightly different intonation contours, rising M1 is the model M1 and M3 – Fall-Rise model.

Thus, while learning a foreign language, bilinguals of this category can transfer sustainable skills to the intonation of their native language in the target that creates prosodic interference, as a result there are accent and distortion values of the utterance in the communicative speech act.



Figure 3. Sample question for group 1 respondents (Yakut-Russian bilinguals): What about new Russian movies?

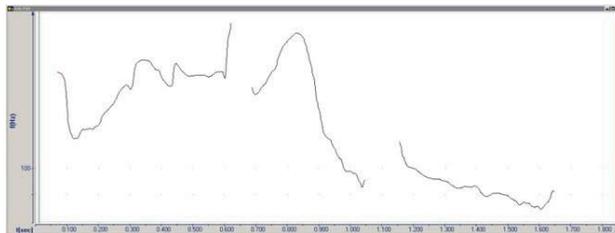


Figure 4. Sample question for group 2 respondents (Englishmen, speakers of British English): What about new Russian movies?

In figures 3 and 4, the differences in the pitch movement of the utterances produced by the Yakut-Russian bilinguals in comparison with the reference reproduction of special question utterance of the English language are graphically presented. Both sentences as normative pronunciation of special question in English begin with a high tone of the first stressed syllable “What”, but later we see differences in the two implementations of the speech. In this case, we observe the interference effect of the Yakut prosodic models that may distort the meaning of utterances and communicative perception of information at the level of intonation (see fig. 5).

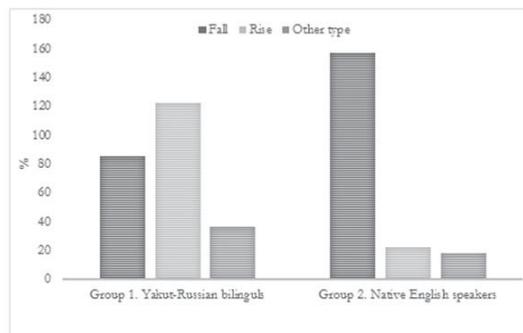


Figure 5. Fo track descriptions of the English special question produced by the Yakut-Russian bilinguals and Native English speakers.

The indicators of the figure 5 determine the number of correct realizations, from the point of view of standard pronunciation, the movements of the tone of the special question of the English language. It should be mentioned that when processing neutral speech special interrogative sentence in English, the most characteristic is the Low Fall. Based on data from our research in the implementation of English special question sentences by the Yakut-Russian bilinguals, we identify 86 implementations with falling terminal tone, 123 rising, which we define as interference effect of the Yakut prosodic system. A total of 37 sentences have different terminal tone when realizing, that is possible to determine the displacement of the center of the terminal contour of tone due to the influence of Russian IC-2 or other extralinguistic factors. If the results of the native speakers we see that in some implementations of the special question utterances there are some deviation of the norms of prosodic speech. 158 consequently, we get implementations with falling terminal tone, 23 with rising, and 19 implementations that are not described in the prosodic norm of special question in the English language.

5. Conclusion

Thus, correctness in the utterances of English special question produced by the Yakut-Russian bilinguals is affected by the several factors. First reason, of course, depends on the prosodic system of the native (Yakut) of the first and second (Russian) non-native languages, which lead to interference in prosody of a foreign language. Secondly, on the normativity of speech is influenced by such extralinguistic factors as emotional coloring of the utterance, the emotional state of the speaker, distortions in speech, and some other factors, as evidenced by the data obtained when reading the dialogues by native speakers in our experiment.

However, our research is not yet finished, the work is in progress. The following article will describe the results of the next stages of the experiment. The main goal of is to determine a degree of the prosodic interference and verify the hypothesis that differences of the prosodic systems in the compared languages may have a negative impact on the process of mastering the correct intonation of a foreign language in classroom multilingualism.

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