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**INFLUENCE OF L1 AND L2 ON THE PRONUNCIATION OF  
LOANWORDS IN JAPANESE**

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**Abstract**

This article examines the influence of the native language (L1) and the first foreign language (L2) on the pronunciation of loanwords in Japanese. One of the problems that this study focuses on is the phonetic errors made by Russian-speaking students of the Japanese language due to their previously acquired knowledge of L1 and L2. How do the first foreign language (English) and native language (Russian) affect Japanese pronunciation? What mistakes do students make, what is the cause of these mistakes? This article attempts to present the results of our research, the main goal of which is to identify the influence of the Russian and English languages on the Acquisition of Japanese phonetics by Russian-speaking students. The material of the practical research was the results of a quantitative and qualitative research conducted among students of the stream "Oriental And African studies", studying Japanese as the main oriental language at the Ural Federal University (Russia, Yekaterinburg). In May and December 2019, we conducted oral tests in the form of reading aloud an unfamiliar Japanese text without prior preparation. Some of the mistakes made by students are caused by negative interference of the first foreign language (English), some – by the influence of their native language (Russian). According to quantitative calculations, students made twice as many intonation errors than pronunciation errors. The results obtained in the course of the study will improve the quality of teaching Japanese to Russian-speaking students and will also help Japanese language learners avoid such mistakes.

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*Keywords:* Japanese language, phonetic interference, L1, L2, phonetic errors, gairaigo



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## 1. Introduction

Learning pronunciation is an integral part of mastering any foreign language. It is known that the naturalness of speech in the target language directly depends on the correct phonetic design in accordance with the phonetic norms of a foreign language, which is also true in relation to the Japanese language. According to Burakova (2020), “native speakers assess the level of Japanese language proficiency primarily in terms of correct pronunciation and general impression, which confirms the thesis that the correct phonetic design of an utterance in Japanese contributes to the creation of a favorable image of the speaker in the eyes of a native speaker” (p. 35).

Influenced by the native language and the first foreign language, Russian-speaking students studying Japanese often have difficulty in pronouncing Japanese syllables of foreign origin. The difference in the phonetic structure of the Russian, English and Japanese languages leads to incorrect pronunciation of the loanwords *gairaigo*.

## 2. Problem Statement

A foreign accent has some phonetic characteristics of the native language that are sufficient to identify the speaker as a foreigner, even to an untrained listener. As Leather (1983) notes, one or two consistently incorrect phonetic features are enough to suggest which language is native to the speaker.

One of the factors that distinguish mastering a second language from mastering the first (native) language is the fact that the student begins to learn the second language, already knowing the first. That is acquisition of a second language occurs through the prism of the native language. When learning a second language, learners often face grammatical, lexical, and phonetic interference. In the opinion of many scientists, it is phonetic interference that has the greatest impact on the perception of foreign speech by a native speaker.

According to the Speech Learning Model, developed by J. Fledge, the sounds of the second language are divided into two categories: new and similar (as cited in Brown, 2000). The sounds of the “new” category are those sounds that the learners do not identify with any sound of their native language. The category “similar” contains those sounds that are perceived as some of the sounds of the native language. The tendency to project the sound system of the native language is evident not only in reproduction, but also in perception: the idea that listeners perceive speech in terms of phonetic categories of the native language goes back to Polivanov. Interference occurs when the student, “identifying the phoneme of the secondary system with the phoneme of the primary system, reproduces it according to the phonetic rules of the primary language, i.e. when he represents the closest sounds of the native language in place of the sounds of a foreign language” (Bagana, 2004, p. 39). According to Mezhtskaya (2016), “phonetic interference arises as a result of the interaction of two (or more) contacting languages and is expressed in a deviation from the pronunciation norm of one language under the influence of another” (p. 77).

Many scientists (Martin, Peperkamp, Brown, Leser, and others) note that such aspects of the phonology of the native language, such as segments, oversegments, syllable structure and phonotactics, are acquired by a person in the first years of life. When asked whether perceptual assimilation can be

overcome at a later age, they answer that improvements are possible, but mastering phonology at the native level seems unattainable.

Martin and Peperkamp (2011) argue that the study of language phonology also includes adjusting the student's own expectations in accordance with the language he has already heard, which makes it possible to better perceive differences. They call the influence of the phonology of the native language on the phonology of a foreign language a compromise associated with the adjustment of the perception system.

Lipinska (2017) conducted a study on the influence of the phonology of the mother tongue and second language on the acquisition of the phonology of a third language. The participants in the experiment were Polish students who spoke English and studied German as a second foreign language. She notes that in 70 cases the experts noted that the speech of the subjects was influenced by the second foreign language (English), while only in 40 cases they were able to notice the influence of their native – Polish on the second foreign language – German. She connects the results obtained with a possible impaired sound perception, which suggests a kind of similarity between “new” and “old” sound categories or insufficient phonetic training.

Amaro (2013), studying the mastering of the Brazilian version of the Portuguese language by the English-Spanish bilinguals, came to the conclusion that if the phonological system of the second language is represented in the same way as the system of the native language, then both systems will be immune to the influence of the third language, acquired in adulthood.

Japanese belongs to the Japanese–Ryukyuan language family of languages, which, in addition to Japanese, includes the languages of the Ryukyu Islands, which are dialects of the Japanese language. From which we can conclude that Amaro (2013) conclusions are not applicable to the acquisition of the phonological system of the Japanese language by foreigners. It means that the acquisition of the pronunciation of the Japanese language will be influenced by both the student's native language and the first foreign language – for the majority it is English. Students experience the greatest difficulties in listening and producing Japanese words borrowed from European languages. Typical mistakes are incorrect accentuation and an attempt to pronounce a word according to the syllables of the source language, and not according to mora.

Saito et al. (2019) while studying the peculiarities of the pronunciation of English words by Japanese-speaking students, found out that most Japanese speakers insert vowels when pronouncing English words: “drive” is pronounced as / dəraivə /, and “sky” as / səkaɪ /. In addition, native Japanese speakers have difficulty intoning two-syllable words correctly: / guiTAR / is pronounced / GUIta / r, while / MUsic / is pronounced / muSIC /. This is due to the fact that the stress in the loanwords of the Japanese language may differ from the stress in the donor language, which was demonstrated in his study by Kubozono (2006), who analyzed the connection between the accentuation of borrowed words in Japanese and the accentuation of native Japanese words. Loanwords differ from native Japanese words in the abundance of heavy syllables and epenthetic vowels; heavy syllables tend to attract accent much more than light syllables in accented words. According to the results of the study, Kubozono (2006) comes to the conclusion that loanwords show a stronger tendency to accent than native words. However, after going through the process of nativization, borrowed words become unstressed if they satisfy certain

phonological conditions. In our opinion, this example also perfectly illustrates the difficulties faced by foreigners learning Japanese.

Preston and Yamagata (2004) conducted a study of the representation of borrowed English words using the Japanese syllabary katakana. They came to the following conclusions: learners use geminata much less often than native Japanese speakers and to compensate for the inability to geminate they often lengthen vowel sounds; learners avoid three word words containing both long vowels and gemination. There was also a tendency towards gemination in those words that did not imply this.

### 3. Research Questions

Moving on to the study, we plan to answer the following questions:

1. What is the impact of the first foreign language (English) and mother tongue (Russian) on mastering the pronunciation of the Japanese language?
2. What are the reasons for mistakes?

### 4. Purpose of the Study

One of the topical issues in the modern methodology of teaching Japanese is the problem of negative phonetic interference, i.e. transfer of phonetic norms L1 and L2 to loanwords in Japanese. The purpose of this study is to present the results of our study of the influence of the Russian and English languages on the mastery of the phonetics of the Japanese language by Russian-speaking students.

### 5. Research Methods

The quantitative research focused on the analysis of phonetic deviations in the Japanese speech of Russian students, admitted as a result of interference resulting from knowledge of the native language and knowledge of L2 (English). In May and December 2019, oral tests were conducted in the form of reading aloud an unfamiliar text in Japanese without prior preparation. The text was selected in such a way that it contained loanwords, and the subject matter of the text correlated with the topics studied during the semester. The study involved 30 students studying Japanese in the field of study “Oriental and African Studies” at the Ural Federal University named after the first president of Russia B. N. Yeltsin. For all students, English is the first foreign language. 30 audio recordings of the informants totaling 99 minutes 32 seconds were recorded on a Samsung Galaxy S8 Plus phone using the “Voice Recorder” mobile application.

### 6. Findings

Our findings are presented in two subsections. The first of them concerns the statistical analysis of the pronunciation mistakes made in the loanwords of *gairaigo*, resulting from the respondents' knowledge of the English language, i.e. their first foreign language. The second subsection presents the conclusions drawn from the analysis.

### 6.1. Analysis of mistakes made in borrowed words of *gairaigo*

**Table 1.** Errors in pronunciation of borrowed words *gairaigo*

Word	Transcription	Mistake	Quantity	%
カード	kaado	kadoo	1	3
パソコン	pasokon	pankon pasakon	8 4	40
パスワード	pasuwaado	pasuwoodaa pasuwoodo	1 9	30
メートル	meetoru	mettoru metoru	4 12	53
ラッシュ	rasshu	rasshuu	1	3
ラジオ	rajio	radio	1	3
インターネット	intanetto	intanetto	8	26
パーセント	paasento	pasento	6	20

As shown in Table 1 the largest number of mistakes was made when pronouncing the word *メートル* “meter” (53%), however, the nature of the mistakes was different: 12 people (40%) pronounced it without a long vowel sound [e] - / metoru /, 4 students (13%) instead of a long one vowel pronounced geminated consonant [t] - / mettoru /. The second most frequent pronunciation error is the word *パソコン* “personal computer” (40%): 8 people, confusing the Japanese katakana signs 「ソ」 and 「ン」, read the word as / pankon /, while two instead of the vowel [o] in the second sea pronounced sound [a]. 36% of students pronounced the word *パスワード* “password” incorrectly: 9 people pronounced it as / pasuwo: do / and, which is probably related to the pronunciation of this word in English / 'pæswɜ:rd /. However, all students pronounced this word with the correct pitch accent. 6 students (20%) pronounced the word *パーセント* “percentage” without the long vowel [a]. In words such as *カード* “card”, *ラッシュ* “a rush”, *ラジオ* “radio”, there were only a few mistakes. In the words “card” and “a rush” errors are associated with the wrong length of vowel sounds, while in the word “radio” the student replaced the syllable [ji] with the more familiar to him [di].

Thus, according to table 2, we can conclude that the most common mistake is the insufficient length of vowel phonemes – 54% of the total number of pronunciation errors.

**Table 2.** Intonational errors in pronunciation of loanwords *gairaigo*

Word	Pitch Accent	Mistake	Quantity	%
カード	KAado	kaDOO	1	3
メートル	meTORU	MEttoru MEtoru	4 12	53
ラッシュ	RAsshu	rasSHUU	1	3
メダル	meDARU	MEdaru	30	100
テレビ	TErebi	teREbi	6	20
インターネット	iNTAANetto	iNTANetto	7	23
パーセント	paASEnto	PAsento	1	26

		paSEnto	5	
		paAsento	2	
オリンピック	oRIMPIkku	oRImpikku	26	86
キロ	KIro	kiRO	29	96
ダイエット	DAietto	daIEtto	9	60

According to quantitative calculations, students made 2.05 times more intonation errors than pronunciation errors. Thus, the most common mistakes in musical stress are such words as メダル “medal” (100%), キロ “kilogram” (96%), オリンピック “Olympics” (86%) and メートル “meter” (53%). Students experienced the least difficulties in accentuation of the following loanwords: パーセント “percentage” (26%), インターネット “Internet” (23%), テレビ “TV” (20%), as well as カード “card” and ラッシュ “a rush” 3%.

## 6.2. Analysis of the influence of the first foreign and native languages

In Russian, stress is forceful, while Japanese pronunciation is characterized as musical or melodic (Rybin, 2012). According to the pronunciation norms of the Russian literary language, the sound [o] is usually not found in unstressed syllables; instead, it is customary to pronounce the sound [a]. However, due to a different type of stress, Japanese vowels do not have an unstressed position, and therefore the open sounds [a], [e], [o] should be pronounced clearly, without changing the acoustic properties either quantitatively or qualitatively (Pavlovskaya, 2011). Nevertheless, due to the negative interference of the native language, expressed in the desire of students to pronounce the word with force stress, 4 out of 30 students pronounced the second syllable in the word パソコン / pasokon / “personal computer” as [sa]. 36% of students pronounced the word パスワード / pasuwa: do / “password” as / pasuwo: do /, which is probably related to the pronunciation of this word in English / 'pæswɜ:rd /.

Insufficient length of vowel phonemes in the words インターネット “internet” and パーセント “percent”, in our opinion, is due to the fact that many students perceive vowel length as equivalent to the force stress characteristic of English and Russian. In Russian, the stress in both words – “Internet” and “percent”, the stress falls on the last syllable, as a result of which students forget about the length of the vowel phonemes. However, this does not apply to the loanword メートル “meter”: in Russian, the word is monosyllabic and the stress must fall a priori on a single syllable; in English, the stress falls on the first syllable / 'mi: tə (r) /, however students also ignored the vowel length. Probably, students are misled by the discrepancy between the number of syllables in Russian and English languages - 1 and 2, respectively – with the number of morons in the Japanese word – 4.

The only word in the pitch accent of which 100% of the respondents made a mistake is the word メダル “medal”. According to the orthoepic norms of the Japanese language, this word is formed according to the unstressed type, when the first syllable in the word is pronounced in a low tone, and all subsequent ones in a high tone / meDARU /. All students pronounced the word “medal” according to the first type of accentuation, when the first syllable of the word is pronounced in a high tone, and all subsequent ones – in a low tone: / MEDaru /. In our opinion, this error is due to the fact that in the Russian language the stress falls on the second syllable, that is, the primacy of the native language over the first

foreign one. The incorrect placement of the pitch accent in the word オリンピック “Olympics” is probably caused by the fact that in English the word Olympic has the stress on the second syllable / ə'limpik /. Despite the fact that in the word ダイエット (eng. Diet) pitch accent in Japanese and power stress in English are the same – / DAietto / and / 'daiət / – 60% of students made a mistake, pronouncing this word as / daIetto /. Probably, there is negative interference from the L1 side, because in Russian, the stress in the word “diet” falls on the syllable “e”, i.e. /diət/. We can say the same about the word キロ “kilogram”: in Japanese and English, the stress falls on the first syllable – / KIro / and / 'ki: læʊ / – nevertheless, almost all students (96%) pronounced this word with stress on the second syllable. This can also be explained by the orthoepic norms of the Russian language, in which the stress is placed on the second syllable / kiló /. The error in the intonation of the word テレビ “TV, television” can be explained by the fact that this word is a short version of テレビジョン / teREBIjon /, which is very similar in accentuation to Russian / TV / and students habitually pronounce instead of / TErebi // teREbi /.

## 7. Conclusion

One of the difficulties in mastering the pronunciation of the Japanese language is the pronunciation of borrowed words from European languages, due to the mismatch in the number of syllables in the word of the donor language and pestilence in Japanese: students have difficulty producing severe pestilences. In addition, due to the shift in emphasis, students make mistakes in pitch accent. Errors in accentuation of loanwords are twice as common as pronunciations.

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