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Comparative Analysis of Phonetic Systems of the Russian, French and Chinese Languages

Olga K. Trubach ✉, Daria I. Gorshkova, Lidia N. Sklyar

Moscow Technical University of Communications and Informatics (MTUCI),
8a, Aviamotornaya Street, Moscow, Russian Federation, 111024
✉ olga_troubatch@yahoo.com

Abstract. This choice of this material for comparison — the phonetic systems of three languages: Russian, French and Chinese — is due to the fact that in the process of teaching the Russian language to foreign students, teachers face the need to work with a multilingual audience, which may include speakers of different and often unrelated languages while the formation of phonetic skills is an indispensable condition for adequate verbal communication and successful verbal communication in general. It was these circumstances that led to the choice of three languages for comparative analysis. The main purpose of such a comparison is the possibility of predicting possible interference errors in the speech of foreigners at the phonetic level. Comparative analysis revealed that, despite the colossal structural difference between French and Chinese, there are many points of contact, on the basis of which it is quite realistic to predict common pronunciation errors for French and Chinese audiences. As a result of the study, the authors came to the conclusion that similar features of the phonetic systems of French and Chinese, leading to interference errors, can be due to the belonging of both languages to the vocal type. Problems related to the rules of positional changes associated with the consonantism characteristic of the Russian language are also common to speakers of French and Chinese. When comparing the rhythmic and intonational features of the three languages, it becomes obvious that in this aspect, the speakers of French and Chinese are also characterized by common typical mistakes: the lack of reduction of unstressed vowels, the incorrect allocation of a stressed syllable, and the indistinguishability of intonational structures. The relevance of the study is due to the need to develop nationally-oriented courses in phonetics, which would allow to correctly build work on the localization and prevention of interference errors in the speech of foreign students in a multilingual audience.

Keywords: vocalism, consonantism, differential features of phonemes, assimilation, stress, reduction, tone, intonation

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Сравнительный анализ фонетических систем русского, французского и китайского языков

О.К. Трубач ✉, Д.И. Горшкова, Л.Н. Скляр

Московский технический университет связи и информатики (МТУСИ),
111024, Российская Федерация, г. Москва, ул. Авиамоторная, 8а
✉ olga_troubatch@yahoo.com

Аннотация. Исследование посвящено сравнению фонетических систем трех языков: русского, французского и китайского. Выбор данного материала для сравнения обусловлен тем, что в процессе обучения русскому языку иностранных учащихся преподаватели сталкиваются с необходимостью работы в мультиязычной аудитории, в состав которой могут входить носители разных, часто не родственных языков, при этом сформированность фонетических навыков является непременным условием адекватного речевого общения и успешной речевой коммуникации в целом. Именно эти обстzоятельства стали причиной выбора для сравнительного анализа именно трех языков. Основной целью подобного сравнения является возможность прогнозирования возможных интерферентных ошибок в речи иностранцев на фонетическом уровне. Сравнительный анализ позволил выявить, что, несмотря на колоссальное структурное различие французского и китайского языков, можно найти немало точек соприкосновения, на основе которых вполне реально прогнозировать общие для французской и китайской аудитории ошибки в произношении. В результате исследования авторы пришли к выводу, что сходными чертами фонетических систем французского и китайского языков, ведущих к интерферентным ошибкам, можно считать принадлежность обоих языков к вокалическому типу. Проблемы, относящиеся к правилам позиционных изменений, связанные с характерным для русского языка консонантизмом, также являются общими для носителей французского и китайского языков. При сопоставлении ритмических и интонационных особенностей трех языков становится очевидно, что и в этом аспекте для носителей французского и китайского языков характерны общие типичные ошибки: отсутствие редукции безударных гласных, неправильное выделение ударного слога, неразличение интонационных конструкций. Актуальность исследования обусловлена необходимостью разработки национально-ориентированных курсов по фонетике, которые позволяли бы правильно выстроить работу по локализации и предупреждению интерферентных ошибок в речи иностранных учащихся в мультиязычной аудитории.

Ключевые слова: вокализм, консонантизм, дифференциальные признаки фонем, ассимиляция, ударение, редукция, тон, интонация

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Introduction

The importance of the introductory phonetic course in teaching Russian to foreign students can hardly be overestimated, since violations of the pronunciation structure of words (that is, errors in the pronunciation of sounds, in rhythm and intonation) inevitably lead to serious communication problems, even if there are no lexical and grammatical errors in the speaker's speech [1].

With insufficient development of phonetic material in the speech of foreigners, errors arise and are fixed due to the influence of the phonetic system of the native language on the phonetic system of the target language. Errors that occur in the interfered speech of foreigners at the phonetic level are traditionally called a foreign accent [2]. Most often, phonetic courses for a foreign-language audience are built taking into account the so-called "negative material" [3], that is, those deviations that are recorded in the speech of foreigners. However, a foreign accent (i.e., phonetic errors associated with interlingual interference) can be studied and corrected not only by taking into account "negative material", but also by predicting the possibility of an accent in the speech of foreigners by comparing the phonetic systems of the native and target languages [4].

In the process of teaching Russian to foreigners, teachers often face a problem that complicates the construction of a phonetic course — the need to work in a multilingual audience, i.e. in the classroom, which includes students who are native speakers of different, often unrelated languages. It is not uncommon for students from China and North Africa (francophones) to study in the same group. The difficulty of mastering pronunciation skills in such groups lies in the fact that the teacher faces the task of selecting material that would take into account the negative consequences of interference from two languages that have enormous structural differences. Nevertheless, the creation of a phonetic course that takes into account the multilingual audience seems to be a difficult task, but not impossible. This article proposes the

experience of comparing the phonetic systems of Russian, Chinese and French, which can be the basis for creating a phonetic course for a mixed audience and which is built precisely on the prediction of possible errors, and not on "negative material".

Comparison of phonetic systems

The Russian language is a prominent representative of the language of the consonant type [4. S. 143]. French is considered a vocal language. Despite the rich set of consonant phonemes, the Chinese language is also characterized by features of the vocal type, judging by the following parameters: 1) the quantitative ratio of consonant and vowel phonemes; 2) the nature of the construction of the syllable (the desire for openness or closeness) and, as a result, the external phonetic appearance of the word; 3) the presence/absence of a confluence of several consonants within one syllable/word [5].

In Russian, 35 consonant phonemes are traditionally distinguished, one semivowel and 5 vowels. French has 17 consonant phonemes, 3 semivowels and 15 vowels [6. S. 73]. In Chinese, there are 21 consonant phonemes, from 5 to 10 (according to different linguists) [5. 7.] vowel phonemes, which form a large number of diphthongs and triphthongs. So, we see that the number of consonant phonemes is much larger, and there are fewer vowel phonemes in Russian than in French and Chinese.

When comparing the rules for constructing syllabems, the following patterns are revealed. In Russian, a significant number of lexemes have closed syllables. So, most imperfective verbs, masculine nouns of the 2nd declension and feminine of the 3rd declension end in a consonant (Russian: *взгляд, портрет, Париж, мышь* – 'look, portrait, Paris, mouse'). In French, words with closed syllables are few, because according to the rules of reading, the consonants t, d, s, x, z are almost never pronounced at the absolute end of a French word, as well as "r" in the endings of verbs of 1 conjugation: *regarder [rəːgardə]*; *portrait [portrɛː]*; *Paris* [pari]; *souris* [souri]. The exceptions are examples in which the phonetic laws liaison (sounding of the final unpronounceable consonant before the next word, starting with a vowel or h non-aspirated) and enchaînement (unified pronunciation of the final consonant with the vowel of the subsequent word) operate [8. S. 92–93]. In the phrase C'est un diamant, the first t sounds because it is followed by a word that begins with a vowel, and the second t is mute, since this is the absolute end of not only a word, but also a phrase.

In a Russian word, a syllable can consist of a different number of sounds. For example, the word *splash* has one syllable, which includes 7 sounds (of which 1 vowel and 6 consonants). In this case, the sounds can go in any order. Each

of them can stand at the beginning, in the middle or at the end of a syllable [8. S. 78]. Confluence of 2–4 consonants is a frequent case: to promote, meeting. In French, following even 3 consonants in a row is an extremely rare phenomenon. The syllable in Chinese has a special, exceptionally "rigid" structure, but just like in French, in most cases it is open. A Chinese syllable consists of one (and no more!) initial consonant — initial and vowel — final, the initial may be absent [9. S. 143]. The final is a pure vowel, diphthong or triphthong: 知道 [zhīdào];我说 [shuō];快 [kuai]. In total, Chinese has 21 initials and 36 finals: their combination into syllables is strictly regulated by certain rules, therefore only 421 syllable combinations are possible in Chinese. The consequence of this is that the Chinese syllable structure has the following limitations:

- the maximum number of sounds in a syllable is four [10. S. 9];
- there can be only one consonant in a syllable, which is always at the beginning;
- it is impossible to concatenate consonants within the same syllable and word;
- the final element of the final (terminal) can be represented by only two consonants — nasal stops [n]: 电 [diàn];跟 [gēn] or [ŋ]: 糖 [táng];眼镜 [yǎnjìng]. Otherwise, syllables will always end in a vowel or semivowel: 我住在莫斯科 [Wǒ zhù zài mòsīkē].

The presence of nasal vowels in French and 17 nasal finals in Chinese, which often turn into nasal vowels in dialects of Chinese, also speaks to the desire of these languages for the "openness" of the syllable: bonbon; jardin cf.听 [tīng]; 房子 [fángzì].

The difference in the organization of the syllabem in Russian and in French with Chinese, and, consequently, in the phonetic appearance of words in general, leads to violations in Russian pronunciation:

Students often do not pronounce the consonant at the end of a word. Sometimes this is due to a violation of the meaning: sport and dispute; board and boron;

- Chinese and French-speaking students have difficulty pronouncing a confluence of consonants in one word. This is expressed in typical mistakes: by inserting a vowel sound: the teacher sounds like [pa] teacher: to a friend — [ky] friend) or by dropping a consonant: sister [sitra]) [11];
- in the Russian speech of native speakers of Chinese and French, the appearance of nasal vowels is also possible: Mongolia — M [ã] golia, bank — b [ã] ka, while the Chinese student will read the word congress with [y] nasal, since in pinyin (拼音) the ong combination is pronounced as [uŋ] 中国 [Zhōngguó].

In addition, in the speech of foreigners there are often errors associated with a different set of consonant phonemes: "The system of Russian consonants is characterized by four differential features: the place of formation, the method of formation, deafness / sonority and hardness / softness" [12]. In French,

consonants are contrasted by deafness/voicedness, but there is no differentiation by hardness/softness. It is important to understand that, despite the fact that in the position before [a] [k], [g] are more softly pronounced: gare; cas; the sound [l] sounds semi-soft, such softening is not complete, and most importantly, it does not have a semantic character, as it happens in Russian (mother and mint; corner and coal, etc.). In Chinese, there is no division of consonants, not only on the basis of hardness / softness (occlusive-fricative q [tśʿ] and j [dž] always sound palatalized), but also on deafness / voicedness. Mandarin Chinese (普通话) has only four voiced consonants: m, n, l and r (written in pinyin), this sound is pronounced as the middle between Russian [zh] and the combination [ayr] — 人 ren). The remaining Chinese consonants are voiceless or semivoiced. "The vocal cords do not vibrate until sound is produced" [13. S. 4]. A semantic role in the phonetic system of the Chinese language is played by the opposition of consonants according to the presence / absence of aspiration: 白 bái [pai] — 排 pái [phai]; 个 gè [ky] — 课 or 刻 kè [ky] [14. S. 108].

Despite the fact that "the place and method of formation of sounds are universal signs: they are in any language system of the world, the composition, characteristics of phonemes, articulation of sounds can differ significantly [15]. In the three compared languages, there is differentiation into labial-labial and labial-dental consonants according to the place of formation. However, French labials b, p, m and labials v, f are pronounced more clearly and intensely, with a more energetic opening at the end compared to their Russian counterparts. So, when pronouncing a voiceless f and a voiced v, the lip rests against the upper teeth with force, and the Russian counterparts are pronounced with a "calm" articulation [16. S. 24–25].

Chinese correlates are also pronounced more intensely than the Russian ones. Recall that the sound p is aspirated, similar to the Russian combination px, the phoneme b is non-aspirated, semi-voiced, often seems deaf to the ear of Russian speakers. There is no sound in Chinese. There is an allegedly similar labial-labial semi-vowel w, however, the non-distinguishing of Chinese w and Russian в and their mixing causes misunderstanding: [w] ilka — because of the unusual sound of the word.

The focus of articulation of front-lingual consonants in Russian is shifted to the front teeth, in Chinese — to the alveoli [10. P. 10], in French these consonants are considered dental-alveolar. At the same time, Russian consonants are dorsal (the tip of the tongue is lowered to the lower teeth, the "back" of the tongue participates in the bow), Chinese front-lingual, like most of the consonants of this language, are apical (the tip of the tongue works), and the French consonants of the same place of formation can be called dorsally -apical. In Russian, there are only two apical consonants — "l" and "p'". The dorsal nature of the articulation of most Russian consonants is emphasized by the presence of palatalization in Russian and its absence in French and Chinese [13. S. 4].

There is an analogue to the Russian voiceless front-lingual fricative “c” in both compared languages, a slight difference is associated with greater tension during its pronunciation, more forward articulation and a narrower gap between the tongue and the hard palate in French compared to Russian. The French “z” and Russian “z” have the same difference in sound formation. In Chinese, there is a sound “s” close to Russian in articulation, but there are no correlates to Russian “z” and “z'”, therefore, the interference replacement of the Russian sound “z” by the Chinese affricate “z” 在 [zài] often occurs, that is: name — [dz] ovut, and the phonemes “z'” are soft occlusive-fricative “j” 进 [jìn], for example: earth — [d'z'] emla [13. S. 5].

Unlike Russian and Chinese, there are no affricates in French, so the production of two Russian stop-fricative sounds [ts] and [h] requires special attention when working with French-speaking students. The articulation of the Russian affricate “ts” is quite easy to explain: at the first stage, the Russian stop front-lingual sound “t” is pronounced, at the second stage a gap is formed and the sound passes into the Russian fricative “c”.

There are 6 affricates in Chinese, some of them were discussed above. This is an undoubted plus, since the occlusive-slit nature of the articulation of sound is familiar to native speakers of this language. However, it should be borne in mind that the Chinese affricate “c” (written in pinyin), standing before the non-front vowels, aspirated, sounds like [tskh] in Russian: 菜 [cài], so it is necessary in the Chinese audience to rely on the combination of this sound with the vowel front row “i”, before which “c” is pronounced without aspiration: 一次 [Yīcì]. When staging the “t” sound, one should not forget that the articulation of the Russian “t” differs to a greater extent from the Chinese and to a lesser extent from the French “t” in the dorsal nature of the work of the tongue and the dental focus of the bow.

The Russian affricate “h” has no analogue in either Chinese or French. The difficulty lies in the fact that this sound is always soft by nature, it consists of a soft deaf occlusion [t ’] and a long soft anterior lingual anterior palatal bifocal “u” rare in many languages. Recall that in the compared languages there is no category of palatalization, respectively, both sounds that make up the affricate “h” are also not represented. So, in French, as in Chinese, there is not one of the named sounds ([t '], [sh], [ch]). Chinese has a occlusive fricative sound ch [tʂ] 茶 [chá], seemingly similar to “ch”, but, unlike the Russian phoneme, it is a hard sound pronounced with aspiration.

The production of a soft affricated (with an overtone “s” after the explosion of the bow) Russian “t '” is very important, since this sound is found in the imperfect form of most Russian verbs, as well as in a significant number of nouns of the 2nd and 3rd declensions: think [dumat '], notebook [t'itrate']. In addition, the correct pronunciation of “t '” is necessary for setting the sound [h], as mentioned above.

Russian hissing anterior-lingual and anterior-palatal consonants “sh” and “zh” are cacuminal (that is, when they are pronounced, the tip of the tongue is raised) and always firm, the lips are slightly pushed forward. French sounds [ʃ] “ch” — chemise and [ʒ] (reading the letters “j” and “g” before “e”, “i”, “y”: joue; giraffe; gens; gymnastic) are pronounced softer and with more labialization than the Russian correlates, have a more advanced dental character. The articulation of the Chinese “sh” 是 [shì] is close to the Russian “sh”, although the Chinese sound is formed a little further in the oral cavity. The semi-voiced (or one of the four voiced, according to some linguists) Chinese “r” 认识 [rènshí] differs from the Russian sounds “sh” and “zh” in a more elevated position of the tip and back of the tongue. The gap through which air passes is narrower than when pronouncing Russian analogues [8. C. 82].

In Chinese and French, there are no prepalatal trembling sounds “r” and “r'”. In their place, French-speaking students also pronounce a trembling but retroflex uvular [r], an apparently similar sound in their native language. The fact that articulatory and perceptually (In perception) these sounds are very different does not interfere with substitution (replacement) and does not lead to a communicative error [4. C. 148]. Staging the sounds “r” and “r'” in the Chinese audience requires a lot of time, effort and is not always crowned with success. Of particular difficulty is the development of vibrating articulation of the tip of the tongue [8. C. 87]. In the speech of native Chinese speakers, phonological mixing [p], [l] [g] often occurs, which leads to the indistinguishability of many lexical units: fire and shook; lived and burrowed.

The Russian front-lingual dental hard “l” articulatory is very different from the French semi-soft “l”, the pronunciation of which is closer to the Russian “l”, however, there is a difference in the position of the middle part of the tongue. When pronouncing “le” it is raised, when the French “l” is omitted [16. C. 24]. Compare: a lamp — la lampe and a chandelier — le lustre. In Chinese, there is a sound similar to Russian “l”, but its articulation, unlike Russian, is more backward: 来 [lái]. The production of a soft [l '], like any palatalized sound, requires special attention and should be based on the difference in the articulation of hard and soft consonants. (The imposition of additional palatal articulation when pronouncing soft consonants — raising the middle part of the tongue to the middle palate) [8. P. 88].

The Russian posterior lingual posterior palatal hard consonants “k” and “g” have analogues in both compared languages. However, the articulation of the Chinese correlates is more backward, and the French counterparts have positional changes, which we will discuss below.

The soft Russian consonants “k'” and “g'” are midlingual and midpalatal and have no direct analogues in French and Chinese.

The phonemes “x” and “x'” are absent in French, which leads to the frequent non-pronunciation of this sound in the speech of French speakers.

In Chinese, there is a pharyngeal sound "h" similar to Russian "x", articulated deep in the oral cavity.

If the composition of consonant phonemes in Russian, Chinese and French is very different (Russian consonants often do not have correlates in the compared languages), then five vowel phonemes [a, o, u, e, i] of the Russian language have analogues in both compared languages, in which the vocal system is presented more richly. The greatest mobility of the lips when pronouncing vowels is characteristic of the French language. The Russian is also characterized by a fairly active use of the labial zone. Chinese articulation of sounds is characterized by the least activity of the lips [14. P. 112].

The phoneme [и] after hard consonants is realized by the sound of the middle row of the middle rise [ы], which is absent in both compared languages. A common mistake in the speech of Chinese and French-speaking students is the replacement of the middle vowel of the middle rise "s" with the front vowel of the top rise "ы".

Considering all of the mentioned above, we can conclude that the discrepancy in the composition of phonemes in the systems of Russian, French and Chinese leads to a large number of errors in Russian pronunciation and the formation of a stable accent:

- the absence of soft consonants in the language is reflected in the erroneous insertion of the semi-vowel "th" or the front vowel "and": aunt like [tyotya], how much like [skolika]) or replacing a soft sound with a semi-soft one: [chut] instead of [chut ''];
- Non-distinguishing of consonants by deafness/voicing by Chinese students entails misunderstanding and frequent substitution of lexical units: there— ladies, tom — house, in writing: they want and go [4. 3. 144–145];
- frequency of non-pronunciation of the sound [h] by francophone students: sounds good like [arasho];
- mixing in the speech of the Chinese trembling and lateral consonants "p" and "l": work [l] abotat. In the speech of Chinese students, some words sound the same: receive and entrust; hunger and the city. Froncophones pronounce the Russian sonorous anterior lingual sound "p" as a posterior voiceless uvular [r], which occasionally causes communicative difficulties;
- substitution of voiced "z" and "z'" for Chinese affricates "z" [dz] and soft stop-slit "j" [dž]: hall as [dz] al or pronouncing a hard whistling [c] instead of Russian affricate [ts] : ote [c] wanted to uchit [c] a;
- pronunciation by Chinese students of an explosive voiceless Russian breathy sound: [khot] or [pkhyl'] instead of kot I dust [17];
- the replacement of the Russian high middle vowel [ы] in the speech of foreign students with the front vowel sound [i] as a result of the absence of such a sound in French and Chinese: beat instead of was, [mil] o instead of soap [18. P. 20];

So, we have considered the main errors that occur in the speech of Chinese and French-speaking students due to the difference in the functioning of the articulatory organs, as well as discrepancies in the composition of phonemes in the system of these languages. Along with the above, it is necessary to pay great attention to positional changes in the phonetic appearance of words, which are based on the laws of phonetics of each particular language. When working with a foreign audience, "taking into account the sound system of the native language is especially important" [19]. E.A. Barkhudarova emphasizes that "the most persistent features of a foreign language accent" are due to differences in the positional patterns of different languages [4].

One of the mandatory positional changes in Russian is the stunning of voiced paired consonants at the absolute end of a word. In the speech of a native Russian speaker, the words *poð* "genus" and *pom* "mouth" sound the same [rot]. In French, stunning at the end of a word does not occur: La maison est grande [grand] with -e mute. We must not forget that the opening of articulatory organs at the end of a word in Russian occurs with an overtone [s], and in French — with [ə:]. Therefore, in the speech of Francophones, the word "genus" can sound like: [rodə:]. The absence of stunning of paired voiced consonants at the end of a word gives rise to a noticeable accent, interferes with the free perception of speech, distracting from the meaning of what was said, although it is not directly related to semantic discrimination. An exception is the situation when positional phenomena perform the task of a boundary signal, for example, at the junction of significant words and enclitics [4. S. 150]. Due to the stunning of the final consonant in the word, phrases such as are distinguished in Russian: Did [zam'ors-l] freeze at night? and Frozen [zam'orzl] at night? In the speech of Francophones, the difference will not be heard.

For Chinese students, the difficulty of correctly pronouncing such Russian phrases is associated only with the fact that in Chinese words there is no consonant, except for [n] and [ŋ], at the end of the word, so pronouncing any other consonant is difficult. The absence of voiced consonants [b], [g] and [d] in the Chinese phonetic system plays a positive role in the correct pronunciation of the end of a Russian word, where these phonemes are replaced in the speech of Chinese speakers by semi-voiced consonants, which are usually perceived by Russian speakers as deaf. In the speech of Chinese students, a vowel sound [i] is often heard after the final consonant.

In addition to stunning paired voiced consonants at the end of a word, the Russian language has a law of assimilation of consonants in the middle of a word and at the junction of some lexemes (usually when a meaningful word is combined with a preposition). In the speech of Russian speakers, assimilation can be complete and partial. In both cases, in literary Russian, it is regressive, that is, the subsequent sound affects the previous one. With

complete assimilation, there is an absolute likening of sounds according to all differential features: place, method of formation, deafness / sonority and hardness / softness: sew [shsht']; ignite [razhech ']. The anterior lingual dental "c" and "h", respectively, become the anterior lingual anterior palatal "w" and "g". The method of formation remains the same — slit. In the word: pilot [l'och'ik], the occlusive hard anterior lingual dental consonant "t" (fly — [l'itat ']) turns into a soft anterior palatal affricate "h'". In this case, two consonants are usually pronounced as one.

Partial assimilation is likening by deafness/voicedness or hardness/softness, or both of these features at once: boat [lotk] a; passed the exams [did] e [gza] mena — assimilation by deafness / sonority: door [d'v'er']; mesh [s'etk] (but: network [c'et']) — assimilation by hardness / softness, all [f's'e] — assimilation by both differential features.

Compare examples of various kinds of assimilation: without noise [bishshum] (complete assimilation) and without end [biskntsa] (partial assimilation).

In Russian, assimilation is possible at the place where the barrier is formed. So, the combination of the letters "t" and "s" gives the sound "c" [ts]: study [uchitsa]; children's de [ts] ciy, and the letter combination "c" and "h" is read as "sh": happiness [u] astie; count [sh] itat.

In French, as well as in Russian, there is often an incomplete assimilation of consonants within a word: absolut [apsolu] — instead of voiced [b], it sounds deaf [p]; médecin [metsɛ̃] — when the vowel "e" falls out in the flow of speech, a regressive assimilation of the voiced "d" to the voiceless "c" occurs and it turns into a voiceless "t". However, at the junction of two words, there is not even a partial assimilation of French consonants: une route droite [yn-rut-drwa:t]; une robe courte [yn-rob-curt]. In Russian, the assimilation of consonants at the junction of words is obligatory only in the situation of combining these words into one rhythmic group (pronounced with one accent): from Paris [is-parizh]; with a friend [z-drugm].

It must be borne in mind that there are situations where regressive assimilation does not occur in Russian, in contrast to French. So, in the speech of Francophones, before the labio-dental "v" and "v'", a deaf noisy "c" is often voiced, by analogy with the French pronunciation of "sv" as [zv]: oy — [z] voy; do [z] vidania. In Russian, voiced consonants "v" and "v'", like sonorants, never change the pronunciation of the previous sounds: see [smʌtriʌ]; happy New [s-novim] godom; immediately [immediately]; freedom [svoʌbod], but: surrender [zdat ']; bite [ndtkusit'].

As mentioned above, in the Russian literary language only regressive assimilation of consonants is possible. Progressive assimilation, which occurs when one or another sign of articulation of the previous sound is retained and it spreads to the next, is found only in dialects of the Russian language (In the southern

dialects, the pronunciation of “kya”, “kyu”: Mankya [man'k'a], chaikyu [ch'iyk'u], and the northern and Central Russian “gya”, “hya”, “gyu”, “hyu”: for money — a den [g'am], over and sver [x'y].

In French, after labial voiced consonants, a progressive sonority assimilation may occur (as in the verb: subsister [subzisté]), which, as a result of interference, leads to an erroneous pronunciation: always [vz] always; society [obž] estvo.

The rigid structure of the Chinese syllable — one consonant (may be absent) + vowel, diphthong or triphthong excludes the possibility of assimilation of consonants, since there is no situation of the neighborhood of two consonants in one syllable / word: Zhè shì wǒ dìdì.

Another law of positional change in pronunciation is accommodation, in which different types of sounds (vowels and consonants) interact. Phonetic accommodation is an integral part of Russian sounding speech. So, with progressive accommodation, the excursion of the subsequent sound adapts to the recursion of the previous one, for example, soft consonants change the articulation of the following vowels “a”, “o”, “y”, “e”, moving them forward: small [mal] and crushed [m'•al]; sir [ser] and ser [s' • er]. We see how the replacement of a hard phoneme with a soft one leads to a change in the articulation of the subsequent vowel. We observe the reverse process in such examples as: from Iran [iz-yran], under the name [pad-s] menem. A hard consonant, affecting the pronunciation of the following vowel, turns it from a front vowel [i] into a middle vowel [ы].

In modern Russian, vowels tend to adapt to the articulation of consonants. Dal [dal] and dal` [da • l] — a soft consonant makes the articulation of the previous vowel more front in a row and more upper in rise. Compare four words where the same stressed vowel will sound differently: mat [mat] — lack of accommodation, mother [ma • t '] — regressive accommodation, crumpled [m “• at] — progressive accommodation, wrinkle [m •a•t'] — progressive-regressive accommodation. It should be borne in mind that in French accommodation due to the partial softness of the consonant occurs only in the case of letter combinations “ca”, “ga”, “gue”: cavalcade [k•avalk•ad], gare [g•ar], guerre [g·•ɛr]. There is also no hardness/softness category in Chinese, but often the final frontal [n] is pronounced softer, causing the previous vowels to be more forward and higher: kan [kha•n].

In Russian, French and Chinese, the process of changing the articulation of consonants under the influence of subsequent labialized vowels takes place. Way [p'u • t '], night [n'o• h '] — the speaker's lips are pulled forward already when pronouncing [n] and [n], but the night [nʌ• h '] noy. Compare French words: pir [pir] and pur [p'yr] and Chinese: 不bù [p'u] and 哥哥 [gēgē]. In terms of the level of labialization of sounds, French is in first place, Russian is in second place, and Chinese is the least active in using the labial zone for articulation (Chinese

speakers stretch their lips less when pronouncing “u” [u] and “o” [o], stretch their lips narrowly, pronouncing “and” [i]).

The consonant nature of the Russian language leads to such a phenomenon as the simplification of consonant clusters, which is obligatory in the letter combinations -CTH- and -ZDN-: honest [h'esny], late [pozn'y]. In the consonant groups -NTSK-, -NDSK-, -STSK-, RDTC-, -NTCTV-, -STL-, -NTG- and some others: giant — [g'igansk'y], Dutch [gʌlansk'y], journalistic [journal'isk'y], heart [s'erce], agency [ʌg'enstv], happy — happy [sl'ivy], x-ray [r'ing'en] — the middle consonant is also usually not pronounced, but in consonant consonant -LNTs- and -VSTV- the initial consonant in the group is not voiced: sun [sontse], feeling [chuvstv].

The failure to pronounce one consonant sound in a consonant group does not occur in Chinese and is very rare in French, since these languages, as mentioned above, are more or less vocal, that is, the confluence of consonants within one word is impossible or not typical for them. So, in French, only the loss of the consonant “p” before “t” after the nasal vowel “õ” was recorded: compter [cõté], however, the loss of vowels is a frequent and often obligatory phenomenon in certain positions: acheter [aʃte], trop de gens [trod -ʒa].

Stunning of voiced paired consonants at the end of a word, the phenomenon of complete and partial assimilation, accommodation, simplification of consonant groups in most cases is imperative for everyone who speaks Russian. A comparison of Russian, Chinese and French revealed that the listed rules for positional change in the phonetic appearance of a word do not exist, are rare or optional for French and Chinese, unlike Russian. That is why, in the practice of teaching the Russian language to foreigners, much attention is paid to this.

An important task in mastering sounding speech is not only the study of the segmental units of the language (phonemic composition, features of the positional change of sounds), but also the mastery of the supersegmental level, that is, rhythm, melody, timbre and intonation, which are inherent in the language being studied. The melodic pattern of a phrase (and speech in general) in a particular language depends on the characteristics of stress or tone and intonation.

In Russian, word stress demonstrates the alternation of force proportions in syllables. The stressed vowel is pronounced most distinctly, for a long time, loudly and intensely and is not subject to reduction. Unstressed vowels are reduced to a greater or lesser extent. There are two degrees of reduction [20. C. 77]:

1. The vowel in the first pre-stressed syllable and in the absolute beginning of a word undergoes quantitative and sometimes qualitative reduction [18. S. 22]. So, the sounds «i», «y», «ы» (realization of the phoneme «i» after hard consonants) and «a» (after a hard consonant) are pronounced in this position less intensely and for a long time, but do not change qualitatively.

Compare: world [mir] — worlds [miri]; garden [sat] — gardens [sʌdy]; path [put'] — paths [put'i]; cheese [sir] — cheeses [siri]. The sounds «o», «a» (after soft consonants) and «e» (after hard and soft consonants) undergo not only quantitative but also qualitative reduction. For example: table [stol] — tables [stʌly]; meat [m'as] — meat [m'isnoy]; this is [et] — floor [itash]; forest [l'es] — forest [l'isnoy]. At the beginning of a word, the vowel has a similar degree of reduction: orange ʌp'il's'in′; economy [ikʌnom'k'].

2. The vowel sound in the pre-stressed (but not in the first and not in the absolute beginning of the word!) and in all stressed syllables undergoes a strong quantitative and qualitative change. Sounds are pronounced very briefly. Compare: house [dom] — home [dʌma] — brownie [dmʌvoy]; row [r'at] — rows [r'ids] — private [r'dʌhowl]; network [c'et'] — there is no network [s'it'i] — network [s'yt'iva]; cold [kold], in the kitchen [to-kuhnu]. With a qualitative change, an ultra-short [b] sounds after hard consonants, and [b] after soft ones.

According to the rules of the Russian language, each word has one stress. The second (additional) stress is possible only in compound words. For example: juicer [sokvyzhymalk] — additional stress falls on the first syllable, the vowel in which is reduced quantitatively to a small extent, since this is not the main stress, but there is no qualitative change. As mentioned above, words with enclitics (prepositions and particles) are combined into one rhythmic group (with one stress): about Moscow [ʌ-mʌskv'e], Wow! [nado-g].

In Russian, unlike French, the stress is non-fixed, heterogeneous (it can fall on any syllable: room, work, corridor) and mobile (the place of stress often changes in different forms of the same word: window — windows, but: at the window.) [21. P. 149] Stress distinguishes between homographs: castle and castle and different grammatical forms of the word: hands / pl. Im.p. / and two hands / singular R.p./.

The phonetic system of the French language is characterized by a high degree of tension in the pronunciation of vowels, both in stressed and unstressed positions. French vocalism is characterized by uniformity (homogeneity), which means that all vowel sounds are pronounced without quantitative and qualitative changes throughout the sound of the word. Compare: evolution [ivʌl'utzjy] and évolution [évolusjõ] [22. S. 54–55].

A separate French word always has an accent at the end: papa′, however, in the flow of speech, the stresses in some words are lost and they are combined into rhythmic groups with one accent at the end. Recall that in Russian almost every word retains its stress in the flow of speech. Compare: We are reading a good book. (Four accents in a sentence.) Nous lisons / un bon livre. (Two accents in a phrase.)

In Chinese, there is no word stress as such, since it is a tone language, and "tone and stress are two incompatible phenomena" [23. S. 46]. Chinese students pronounce all the vowels in the same word (one might say, with stress), since there is no intonation of syllables in the word [23. S. 46]. Thus, the lack of reduction of unstressed vowels is a feature characteristic of both francophones and native speakers of Chinese; accordingly, it is possible to predict the appearance of similar errors in the speech of native speakers of these languages.

In addition to the difficulties associated with the peculiarities of Russian word stress, it is not an easy task to master the intonation specifics of the Russian language, in which there are seven main intonational structures (IC). At the same time, the communicative task is realized not only by a general intonation pattern, but also by the semantic separation of the word within the utterance. Phrases pronounced as IK-2: We are going to the cinema and We are going to the cinema have shades of meaning. Statement 1: we, not someone else. Statement 2: we go, not we go. Pronouncing the same phrase as IK-1 focuses our attention on the word "cinema" [24].

The presence of phrasal stress at the end in French and the tone character of the Chinese language generates less (compared to Russian) dynamism, mobility of intonation. It is difficult for native speakers of these languages to recognize both the main and additional meaning of the communicative task of the Russian utterance. Where the meaning of a phrase in Russian depends only on intonation, in French and Chinese the communicative task is formed with the help of lexical and syntactic means: word order, special constructions, particles. IC-3, used in a situation of a general question, can be of particular difficulty. Phrases: We are going to the park. and Are we going to the park? in Russian they differ only in intonation. In Chinese, for a general question, either an interrogative particle or a special word order with a repetition of the predicate is used: 我们去公园。 [Wǒmen qù gōngyuán.] — 我们去公园吗? [Wǒmen qù gōngyuán ma?] or 我们去不去公园? [Wǒmen qù bù qù gōngyuán?] In French, it is possible to use a special interrogative construction or reverse word order. Est-ce que nous allons au parc? or Allons nous au parc? Despite the fact that short general questions in the colloquial speech of Francophones are often created in the same way as in Russian, only by using IK-3: Nous allons au parc?, it should be remembered that in French the intonational peak will be at the end. In Russian, the place of raising the tone depends on the meaning of the statement. Compare: Are we (= no one else) going to the park? Are we going to the park (not the theater)? And are we going to the park? (neutral general question: are we going or not). Moreover, in the first two examples there are two intonation peaks. To convey the meaning that is formed in Russian with the help of an additional rise in tone (intonation peak), French uses a special

syntactic construction. C'est toi qui a pris le stylo? Did you (and not someone else) take the pen?

Comparing the rhythmic and intonational features of the three languages, we can conclude that for speakers of French and Chinese, such interference errors in Russian pronunciation are possible, such as the lack of reduction of unstressed vowels, incorrect allocation of the stressed syllable, indistinguishability of intonational structures, incorrect definition of the intonation peak, and as a result communication failure.

Conclusion

As a result of comparing the phonetic systems of Russian, Chinese and French, one can come to the conclusion that there are a fairly large number of points of contact (vocalism of French and Chinese; rules for positional change in the phonetic appearance of a word associated with consonantism characteristic of the Russian language and not being meaningful for French and Chinese; features of Russian word stress and intonational specifics of the Russian language, leading to interference errors common to native speakers of French and Chinese), on which one can build a phonetic course common to native speakers of Chinese and French.

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Information about the authors:

Olga K. Trubach is Seniour Lecturer of the Department of History, Philosophy and Intercultural Communications, Moscow Technical University of Communications and Informatics *Research interests*: theoretical and applied linguistics; *e-mail*: o.k.trubach@mtuci.ru
ORCID: 0000-0001-8881-1198; eLIBRARY SPIN code: 4009–8755

Daria I. Gorshkova is Seniour Lecturer of the Department of History, Philosophy and Intercultural Communications, Moscow Technical University of Communications and Informatics; *Research interests*: theoretical and applied linguistics; *e-mail*: d.i.gorshkova@mtuci.ru
ORCID: 0000-0001-8881-1198; eLIBRARY SPIN code: 2201–5621

Lidiya N. Sklyar is Candidate of Historical Sciences, Associate Professor of the Department of History, Philosophy and Intercultural Communications, Moscow Technical University of Communications and Informatics; *Research interests*: everyday life history; *e-mail*: l.n.skliar@mtuci.ru
ORCID: 0000-0002-4791-4737; eLIBRARY SPIN code: 4472–8292