Ways to Deal with Phonological Transfer in Students from Podlaskie Voivodeship, Poland

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Abstract. This paper presents results of research aimed at accent elimination in students of the Russian philology from northeastern Podlaskie Voivodeship – a region on the Polish-Belarusian border. With cross-linguistic and intra-linguistic influence, linguistic competence development in phonetics for all groups of bilinguals is a precondition for successful learning of Russian as a foreign language.

Key words: bilingualism, language transfer, methods of logopedics, phonetics

I. INTRODUCTION

Phonetic and phonological mistakes of students learning Russian in Białystok, capital of Podlaskie Voivodeship, differ from those in other regions of Poland.

This can be explained by the fact that Podlaskie Voivodeship lies in the Borderlands with Belarus and Lithuania. Intra-linguistic influence, due to subdialects in Podlasie, and presence of students from Belarus result in cross-linguistic influence and determines its specificity.

Thus, work to deal with mistakes in pronunciation arising due to cross-linguistic and intra-linguistic influence allows me to make a conclusion that, because of partial similarity of phonological transfer in bilinguals and multilinguals studying at University of Białystok, methods to deal with that transfer are also similar.

I believe that logopedic approach that comprises a sound drill, as well as activities to teach phonemic awareness, develop breathing for speaking, and articulation exercises are more effective than the traditional approach used for working with international students.

II. THEORETICAL BACKGROUND

Studies of the Borderlands are one of the priorities of contemporary interdisciplinary research in various fields and is carried out within the framework of limology – studies of borders (from Greek limes – border) [7]. The Bigger Borderlands between Russia and Poland comprise the Belarusian, Ukrainian and Lithuanian lands.

The Borderlands attracted interest of many historians, sociologists and linguists (for example, Bespamyatnykh [3], Ciotko [6] and Kondraciuk [12] among others).

Historically, this part of Poland that borders on Lithuania and Belarus was inhabited by eastern and western Slavs, as well as Lithuanians, Germans, Tartars and Jews [26]. The role of individual ethnic groups changed over time since the territory used to belong to different nations in different periods, which resulted in linguistic diversity in this territory. According to Kondraciuk, territorial bilingualism in this area is typical of territories with mixed ethnic groups. People of one nationality had to speak a language of some other ethnic group, alongside their native language. More often, bilinguals are people of an ethnic group that due to certain social, economic or political reasons has less influence in that area [12]. Here, it is mostly Orthodox Christians.

Works by well-known scientists in the field of dialects and subdialects of eastern Podlasie (Rembiszewska [20], Maryniakowa [20], Siatkowski [20], Wilcz-Pawłowska [13] among others) suggest that subdialects in this region, despite having many similar features, are not a linguistic monolith. Scientists are unanimous in that the Podlaskie dialect has always differed from other dialects of Poland. It is similar to the Kresy dialect and eastern Slavic languages in terms of phonetics in between words\(^2\) and mazuration\(^3\). The Podlaskie subdialects have an unique pronunciation of vowels as compared to the Polish language: a) [u], [o], [ɔ] that developed from the old narrow [ə] are used in other positions than in Polish; b) pronunciation of [y] as a sound between[y] and[i]; c) pronunciation of unstressed [ɔ] as[a]. Consonants are pronounced differently too: a) [t] forelingual dental; b) soft [ɫ] before front vowels(niedalieko), back vowels (biatam) and at the end of a word (kawal’); c) similar origin of the semi-soft mediolingual consonants: [ʃ], [c], [z], [dʃ]; d) change of[k] to [ch] in the combination[kt] (nichto); e) voiced[h] (hoduyo [hoduya]). Recent studies suggest that that some subdialects have a non-syllabic [u], voiceless [ch] and hard [ɫ] [11]. All researchers mention that Podlasie subdialects are characterized by “SLEDZIKOWANIE” – semi-soft mediolingual consonants (for example, [ʃ], [z], [c], [dʃ], [j]).

\(^{1}\)Eastern Kresy is the name of the present-day western Belarus, Ukraine and Lithuania, which once were part of Poland (1918-1939).

\(^{2}\)Pronunciation between two words, which in can fuse and form one segment in a rapid speech.

\(^{3}\)A phonetic phenomenon when hissing and hushing sibilants get mixed.

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Another linguistic feature of the territory under consideration is the lack of strict boundaries between languages and an easy switch from one language to another [22]. This fact proves intra-linguistic influence. Bilingualism and multilingualism have become an indispensable part of the Borderlands. The territory has all possible kinds of bilingualism: bilingualism from birth; territorial bilingualism due to cross-linguistic influence between neighbor-nations; bilingualism induced by social factors and education [10].

Differences between L1 and L2 and their interplay in bilinguals’ consciousness in the process of communication result in language transfer that manifests itself on different levels: phonetic, lexical (semantic) and grammatical.

Besides intra-linguistic influence, cross-linguistic influence is also observed in Podlasie – between Polish, Russian and Belarusian, which are cognate inflected languages. Scherba wrote that difficulties in pronunciation do not come from sounds that have no analogs in L1. New strange sounds attract attention and they are not associated with any L1 sound. Meanwhile, L2 sounds that are similar to L1 sounds are subject to substitution or incorrect pronunciation [21]. Despite the fact that Belarusian students coming to study at University of Białystok are mostly from Grodno, where Russian is a native language [5] and, for the most part, Belarusian-Russian bilingualism is typical of Belarus.

That is why the greatest problems with learning a phonetic system of L2 come from practicing similar sounds in different languages. It should be mentioned that sounds produced by bilinguals are between two systems of phonemes, therefore, it may be difficult to identify their phonological characteristics [2].

As for phonetic transfer, described by Weinreich already back in the 1960s (underdifferentiation of phonemes, overdifferentiation of phonemes, reinterpretation of phonological differences, substitution of sounds) [25], Polish students, whose speech is greatly influenced by dialects, demonstrate all types of phonetic and phonological transfer. Sound substitution can be observed in Polish students pronouncing Russian ҹ, ҹ. Underdifferentiation of phonemes is seen in use of the Polish vowel Wars when pronouncing Russian words and loss of softness of the Russian consonants [p''], [s''] in the middle and at the end of a word; in the case of mixed combinations like пa-pa-pa-пoп. This type of transfer is also observed in non-reduction of Russian unstressed vowels.

The modern science sets forward two aspects of description of the Russian phonetic system against the background of a foreign language system – articulatory and systemic and functional. The articulatory aspect deals with description of sounds in Russian: studying articulation features of sounds, words and sentences [4]. This aspect is represented in numerous scientific papers and teaching materials (Bryzgunova [4], Lyubimova [15], Odintsova[17]).

Recommended practices in this case focus on teaching pronunciation and are mostly aimed at manners of articulation that are easily noticed or controlled, as well as articulatory models, phonetically favorable positions and sound helpers [16]. However, methods of logopedics used to treat dyslalia and rhinolalia (dyslalia (Greek dis – prefix with the meaning of a partial disorder and lalia – speak) – difficulties in pronouncing sounds due to a structural abnormality, with normal hearing and innervation of speech organs, rhinolalia (Greek rhinos – nose, lalia – speech) – a nasal quality of speech due to some disease or defect of the nasal passages) can promptly help students with phonetic and phonological transfer deal with deviations in pronunciation, rhythm and intonation [14]. Drawing on breakthroughs of Russian speech therapists in treatment of dyslalia, rhinolalia and stuttering (Pravdina [19], Ermakova [8], Povarova [18] Filicheva [9]), I can suggest a number of methods and exercises to effectively deal with phonetic and intonation transfer in students.

III. MATERIALS AND METHODS

This paper contains results of many years of work with bilingual students aimed at identification of phonetic mistakes and elimination of accent in teaching Russian as a foreign language.

In academic year 2019/2020, 72 first-year students studied the Russian philology. They can be divided into the following three groups:
1. 65 Polish students from Podlaskie Voivodeship, some of them used to study Russian before and some started learning it from the beginning – 90%;
2. 6 international students from Grodno, Belarus – 8,3%;
3. 1 international students from elsewhere – 1,4%.

The students from the first group had the following deviations in pronunciation: substitution of the Russian sonorant [ə] – [l] with the bilabial "Polish l" or "European l" (softer) (46 students); confusing [m]– [ʃ] and [n] – [ʃʃ]; pronouncing hard consonants ɯw [ʃʃtʃ] instead of ɯ [ʃʃ] (44); pronouncing a hard ҹ [ch] instead of the soft one; pronouncing a soft ҹ [ch] with a weak stop (28), non-differentiation of combinations па-па-пoп [ра-ра-rja] (42), confusing a hard and a soft [l] (12), absence of reduction of the vowels o, a (60), etc. Incorrect stress, typical of this group of bilinguals, is not analyzed in this paper.

The students from the second group, who came from Belarus, also demonstrate deviations in pronunciation arising from phonetic transfer in Belarusian-Russian bilingualism: use of a hard [r], [cz] instead of a soft [r'], [cz'], a soft [dż], [dzi] instead of [d'], [dz'], affricative [dz], change of the consonants [w], [l] into [j], use of added consonants [w], [g], clear use of [a] in pretonic syllables [24]; absence of connection and interchange of [i] and [y] before hard consonants. The students from Belarus tend to
use [a] in pretonic syllables and mix Belarusian and Russian elements and structures on the lexical level.

It should be mentioned that intonation transfer is typical of both the Polish and the Belarusian students: incorrect intonation in interrogative sentences with a question word. Normally, interrogative intonation is characterized by a rising tone at the beginning of a sentence and a falling tone in the end. The students, however, use a rising tone at the end of a sentence (rising tone on a tonic or post-tonic part).

The student from the third group, of Czekh and Hungarian roots, who used to study Russian before entering the university, has minor deviations in pronunciation: use of the softer "European l" instead of the Russian sonorant ʃ /ʃ/, confusion of hard and soft ʃ /ʃ/, non-differentiation of combinations пa-pa-pa, [ra-ra-ra], confusion of ui — [ʃh] and uи — [ʃʃ]; absence of reduction of the vowels o, a.

IV. RESULTS AND DISCUSSION

While working with the students, whose speech is characterized by phonetic and phonological transfer, special attention is paid to pronunciation in group 1 and group 3 and intonation in each group. Methods of logopedics can help deal with phonetic and phonological transfer and include working on breath, warm-up exercises for articulators and cheeks necessary for sound drilling, sound drilling itself and some techniques to deal with intonation transfer.

People with stuttering have specific problems with speech fluidity, its speed and rhythm, alongside the CNS problems (which has nothing to do with the students in this research). Thus, oral speech rhythm and intonation development is one of the important steps in treatment of stuttering [18]. Using different methods that help develop the rhythm of speech in elementary students of Russian (saying words and phrases to music, singing, drilling as part of logopedic rhythmics) ensures speech fluidity and correct intonation.

A very effective exercise is pronouncing a word syllable by syllable and clapping at the same time, with an extra emphasis on the stressed syllable and an extremely loud clap. Another exercise is pronouncing words and shifting stress from one syllable to another.

The role of breathing exercises, which are sometimes overlooked when working on pronunciation, is fairly important. Switching to diaphragmatic breathing helps students regulate exhales and provides a necessary support for a sound.

Hence, breathing exercises for students should begin with diaphragmatic breathing:

- stand upright, put the right hand on the diaphragm, exhale and, when you want to inhale, take a deep breath through the nose (with the mouth closed) to ensure a slight sensation of an inhale without any strain. Exhale through the nose, pause, and then go over again. Repeat three times without stopping.

Then do the following exercises:

- put the hands on the lower ribs, thumbs on the stomach and other fingers on the back. Exhale, breath in through the nose, hold the breath for one second and then breathe out;
- in the same position, breathe in and out following the scheme: inhale → exhale → inhale → exhale;
- after a calm breath in, exhale slowly through the mouth slightly changing the opening of the lips to regulate the intensity of breathing out;
- while upright, feet shoulder width apart, imagine a fragrant flower and breathe its scent. A long inhale and then exhale through the nose;
- while seated, inhale and then exhale as if trying to put out a candle;
- while seated, put the tongue on the lower lip, exhale sharply trying to blow a piece of cotton wool off the desk;
- put the tongue up and exhale sharply trying to blow off an imaginary piece of cotton wool;
- extending breathing out, pronounce the vowels a, o, y, и, ы, е and tongue twisters. Learn the tongue twister "Нагоркенапригоркестоят 33 Егорки" in advance. Take a breath in and say: Нагоркенапригоркестоят 33 Егорки. Раз Егорка, два Егорка, три Егорка, четыре Егорка, пять Егорка... (After an additional breath in after each 5 Egorkas, continue until 33) [8, 18, 23].

Breathing exercises should be accompanied by other types of logopedic exercises. Sound drilling should start with an articulation warm-up to ensure movements of the articulators that are necessary for correct pronunciation of sounds. It also helps unite simple movements into complex articulation patterns of different phonemes.

These exercises should be done in front of the mirror to rely on a visual support as well as sensations.

Logopedic exercises are mainly aimed at children, which is reflected in their names.

Warm-up exercises (static and dynamic) for the tongue, cheeks, lips and jaws help students manage with the pronunciation they are not accustomed to.

Static exercises do not include any movements of the lips, tongue or jaws.

In the case of static exercises for the tongue, students should do the following:

- relax the tongue, stick it out and put it on the lower lip ("Spatula");
- open the mouth, tense the tongue and stick it out ("Needle");
• open the mouth widely, put the wide tongue up to the upper teeth making a cup ("Cup");
• relax the tongue, stick it out, raise the lateral edges and blow into the resulting tube ("Tube").

When doing these exercises, the tongue should be engaged for 10-15 seconds.

Dynamic warm-up exercises include movements of the articulators.

In the case of dynamic exercises, students should do the following:
• tense the tongue, stick it out and take turns trying to reach each ear with it ("Clock");
• open the mouth, stick the tongue to the hard palate with suction and simultaneously pull down the lower jaw ("Mushroom");
• stick the tongue to the hard palate with suction and click the tongue; clicking should be slow and strong to stretch the frenum of the tongue ("Horse");
• tense the tongue, stick it out take turns trying to reach the nose and the chin with it ("See-saw");
• open the mouth, put the tongue up, slide the tongue from the teeth to the throat ("Whitewashing the ceiling").

Repeat each exercise 10 times [9].

Exercises for the lips are also necessary for correct and clear pronunciation of sounds. If the lips are too rigid or move too much or too quick, it can result in defects in speech. I suggest the following exercises:
• take turns raising and lowering the upper and the lower lip, showing the teeth as much as possible;
• slightly massage the lower lip with the upper teeth, and vice versa;
• round the lips and stick them out;
• stick out the lips and move them right and left;
• snort like a horse.

Exercises for facial muscles are just as important. For example, the following ones:
• puff out the cheeks and pull then in, transferring the air from one cheek to the other as if trying to rinse the mouth;
• suck the air under the lower lip and then and the upper lip;
• pull the lower lip on to the upper lip;
• pull the upper lip on to the lower lip.

After practicing breathing and logopedic exercises, sound drilling begins.

Defective pronunciation of a [1] is called lambdacism, substitution with another phoneme – paralambdacism. Defective pronunciation of i and u is called sigmatism. Students do logopedic exercises for the tongue, lips and jaws, under supervision of their teacher, to correct defective pronunciation.

To drill a, it is necessary to start working with the closed central vowel – а. Practice differentiation of u and pull the tongue backwards. Then do the following:

1. Ask students to open their mouths slightly and pronounce the combination уа. In this case, u is short, articulators and the tip of the tongue are tense. At that moment, students clearly hear the syllable ла.

2. Ask students to pronounce the vowel a, with the tongue between the teeth, the lips are stretched in a smile. When pronouncing the sound, the tongue is clenched between the teeth, and students hear а.

3. If the former two exercises do not work, do the following: ask students to duck their heads forward and draw a low-pitched л, with the tongue clenched between the teeth [1].

At first, students get an artificial л, and its pronunciation is drilled in syllables, words and sentences.

When students succeed in pronouncing the reverse syllable ал, they are asked to write down the combination ...ал and use all Russian consonants in place of the dots for drilling.

When students have no problems pronouncing an open ла, play a well-known melody and ask them to sing the syllables: ла-ла-ла, ло-ло-ло, лы-лы-лы.

If there are problems with pronouncing у, it is recommended to do the following:

1. Raise the tip of the tongue, pronounce му and simultaneously pull the tongue backwards. The lips get rounded and move forward. To make it easier, press the cheeks. It is possible to use the syllables му or ам instead.

2. Ask students to pronounce the combination ми, until it is fluid.

If there are problems with pronouncing й, do the following:

1. Smile and simultaneously pronounce у. When moving the tongue closer to the teeth, it sounds like у.

2. Ask students to pronounce the syllable case several times. At the same time, raise the tongue and pull it backwards.

3. If students are good at pronouncing у, ask them to pronounce it and pull the tongue backwards at the same time [1].

When students have no problems with the sound it is drilled in words, sentences, dialogs, tongue twisters, songs and stories.

Next, working on intonation, it is necessary to focus on warm-up exercises that help students train the voice (change from chest voice to head voice, etc.). Students are recommended to do the following:
• pronounce the sequence of combinations, with a low chest voice, as if telling a scary story:
  Y→YO→YOA→YOAЭ→YOAЭЬ
  Ьл→ЬлЭ→ЬлЭО→ЬлЭОА→ЬлЭОАУ

13
• emphasize the vowel raising the voice:
  – у́оуауууъьуўь?
  – у́оуауууъьуўь!

• Pronounce the phrase Дождь пошёл, according to the following plan:
  – ask, surprised;
  – admire, joyfully;
  – feel upset;
  – clarify.

• learn several tongue twisters by heart and use them as if in dialogs, shifting sentence stress from one word to another:
  – Наш Полкан попал в капкан?
  – Наш Полкан попал в капкан!
  – Наш Полкан попал в капкан?
  – Наш Полкан попал в капкан!
  – Наш Полкан попал в капкан! [18].

After finishing with warm-up exercises, intonation patterns are studied.

Results of the students form the three groups after using logopedic exercises to drill pronunciation of Russian sounds are the following: sonorant l [l] (64); pronunciation of щ [ҷ] (71); soft ч [ч] (71), combinations pa-pa-pa [ра-р’a-ра] (66), reduction of the vowels о, а (67), etc.

According to the data obtained, I can make a conclusion that ways to deal with phonological (or phonetic) transfer should be selected with account for the notes above. Logopedic exercises to teach pronunciation and drill sounds help overcome phonological, intonation and prosodic transfer in a short period of time.

It is also necessary to consider how close a student is to standard, which depends on many factors: level of education, speaking in a family, characteristics of the organs of speech and hearing. Some students fail to hear a difference in sounds and cannot pronounce a sound correctly, while some do hear the difference but still it does not result in correct pronunciation.

V. CONCLUSION

Intonation and pronunciation mistakes in students learning Russian at University of Białystok greatly differ from such mistakes in students from other regions of Poland. Podlaskie Voivodeship as part of the Borderlands has a number of specific cultural, economic and linguistic features. Intra-linguistic influence, which is typical of this region of Poland, and presence of international students lead to a situation when several types of transfer combine.

Working on mistakes in pronunciation that arise from intra-linguistic and cross-linguistic influence allows me to make a conclusion that, due to a partial similarity of phonological transfer in bilinguals and multilinguals studying at University of Białystok, ways to deal with that transfer are similar, too. I believe that the logopedic approach that comprises sound drilling, as well as developing phonemic awareness and proper breathing for speaking and using exercises for articulators is more effective than the one traditionally used for working with foreigners. Focus on reduction and elimination of a foreign accent in students helps preserve correct pronunciation in several language systems.

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