



ISSN: 2158-7051

INTERNATIONAL  
JOURNAL OF  
RUSSIAN STUDIES

ISSUE NO. 9 ( 2020/2 )

## RUSSIAN PHONOLOGY ACQUISITION BY BI/MULTILINGUAL CHILDREN IN MINORITY SETTINGS

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### Summary

This article addresses the development of the phonological system of Russian as a heritage language (RHL) in the speech by bi/multilingual children. The chapter reports the results of a qualitative study examining phonological characteristics in the Russian speech of 29 bi/multilingual children (between 5 and 6 years old) from immigrant families in Saskatchewan. The results provided with reference to Russian monolingual child (MR) speech data demonstrate that child RHL speakers produce non-canonical forms (forms different from standard adult language use) similar to the ones by MR speakers. These forms include rhotacism, consonant cluster reductions, gliding, sonorant deletions, and other processes common in child speech. Some RHL speakers also employ dialectal and colloquial forms. In particular, Southern Russian/Ukrainian [ɦ] sound use was observed in the speech of 8 participants whose parents immigrated from Eastern Ukraine. Some limited evidence suggesting the possibility of a double phonemic system (with elements of Russian and Ukrainian or Suržik) has been observed in the speech of two RHL participants.

**Key Words:** Russian-as-a-heritage-language acquisition by children, child bilingualism, heritage language, immigrant language of Canada, sound system, phonology.

### Introduction

A growing number of children around the world are exposed to more than one language from birth (simultaneous bilinguals) or later in life (sequential bilinguals) (Hoff 2014: 261). Children who learn a tongue other than the majority/official language from at least one parent and grow up in

immigrant communities (such as immigrants from Russian-speaking countries in Canada) are known as “heritage” or “immigrant language” speakers (Hoff 2014: 262; Montrul 2012: 2). Other terms used to describe heritage or immigrant languages include “community, ancestral, ethnic, home, non-official,” etc. (Duff 2008: 71).

In terms of the sequence of language acquisition, heritage language speakers typically start with the heritage language as their mother-tongue or first language at home, but subsequently learn the majority language of their country or place of residence, which eventually may take over (or become dominant) due to its role in the educational setting and workplace (Baker 2001). Therefore, heritage language speakers are more often “sequential” or “successive” (learning one language prior to another) rather than “simultaneous” (equally exposed to two languages from birth) bilinguals (Flynn, Foley & Vinnitskaya 2005: 769; Genesee & Nicoladis 2007: 324), with the exception of rare cases in which two parents spend equal amounts of time speaking two (or more) languages with their children from birth (Genesee & Nicoladis 2007: 324). Depending on their age upon immigration, family policies, and multiple individual circumstances, child heritage language speakers can also be exposed to the majority language environment very early on (in the playground, via media, in a shopping mall, etc.), so some elements of “simultaneous” exposure to both heritage and majority languages may also be present in the bi/multilingual development of heritage language speakers. Heritage language speakers are in most cases bilingual (or multilingual) in the heritage language(s) and the majority language(s) of their surroundings (Scontras, Fuchs & Polinsky 2015). Their bi/multilingualism is understood in this article in terms of “broad” definitions of bi/multilingualism as simply an ability to speak more than one language (Trask, 2007).

The question of similarities and differences in language acquisition by monolinguals and heritage language speakers has stimulated much discussion in recent research literature (e.g., Polinsky 2008; Kim, Montrul & Yoon 2009; Silva-Corvalán 2014; Jee 2018). Some studies suggest that the linguistic competency of heritage language speakers is lower than that of their monolingual peers (e.g., Polinsky & Kagan 2007), and that these differences are already manifest at an early age among child heritage language speakers who may have some extra struggles with phonology, morphology, lexis, and grammar acquisition (e.g., Paradis, Crago, Genesee & Rice 2003; Jia & Paradis 2015). Some other studies illustrate that child heritage speakers generally display proficiency parameters similar to those of their monolingual peers (Makarova & Terekhova 2017). The dynamics of heritage language acquisition can thus be better understood by involving more languages and more locations and contexts in the scope of research investigation.

Very few studies of child heritage Russian speakers are available worldwide (e.g., Bar-Shalom & Zaretsky 2008; Klassert, Gagarina, & Kauschke 2012). The available studies of RHL speakers mostly focus on lexical and morpho-syntactic development (e.g., Polinsky 2005; Bar-Shalom & Zaretsky 2008; Gagarina & Klassert, 2018; Gor, 2019). Even fewer studies address heritage language phonologies (e.g., Gagarina, 2003; Montrul, 2010; Polinsky, 2018; Kissling, 2018). Some of these studies show that heritage speakers have “good phonology” (Montrul 2010, 5) and “typically sound much like other native speakers”, although there is a significant variation or “continuum” in their individual phonologies (Kissling, 2018, 25).

In Canada, there are 170,000 speakers of Russian as a Mother tongue (or 0.5% of the country’s population) (Statistics Canada 2011). However, Russian-English bilingualism remains underrepresented in research, as only a few studies are available (e.g., Kazanina & Phillips 2007; Nicoladis, Da Costa, Foursha-Stevenson 2016; Makarova & Terekhova 2017). These studies address some specific questions of language acquisition, but do not draw a comprehensive picture of phonological development within a particular age group.

Our study addresses Russian-as-a-heritage-language acquisition by child bi/multilinguals in Saskatchewan, Canada. Saskatchewan has a relatively small community of about 1500 Russian language speakers and a Saturday Russian school in Saskatoon run by a few parents-enthusiasts (Makarova &Terekhova 2017). There are no Russian language courses taught at any level of education in the province.

The study reported in this chapter provides a qualitative analysis of the emerging phonology of child heritage Russian speakers (age 5-6) residing in Saskatchewan, Canada, with reference to the speech production of their monolingual peers in Russia. It is a part of a bigger quantitative study of Russian as a Heritage Language of Canada (Authors of this article, 2017, 2018).

The study questions addressed in this paper are:

1. What is the overall level of development of phonology in the speech of child Russian-as-a-heritage language speakers in Saskatchewan, Canada, and how does this level compare to the phonological development in the speech of their MR peers?
2. What kind of non-canonical forms do child RHL speakers make in heritage Russian and how these forms compare with those produced by monolingual child speakers of Russian?

It should be noted that the paper focuses on the speech of RHL child speakers in Saskatchewan, Canada, and that monolingual children's speech samples are used as a frame of reference.

## Materials and Methods

The participants, recruited via purposeful sampling, included 29 RHL speaking children (11 boys and 18 girls between the ages of 5 and 6; the average age of participants was 5.7), all bi/multilinguals residing in Saskatchewan, Canada. All participants spoke Russian and English (plus possibly one or more additional languages). The additional languages included French (7 participants), Ukrainian (3), French (1) and Arabic (1), French and Ukrainian (1), and Ukrainian and Hebrew (1). The countries of origin of the participant children's parents included Russia (7), Ukraine (17), Kazakhstan (4), Kyrgyzstan (1), and Uzbekistan (1). All the children were either born in Canada (6 participants) or brought to Canada by their parents before they were 3 years old (23 participants). All the children had Russian-speaking mothers and were brought up with Russian as a mother tongue, and had attended an English-speaking pre-school, kindergarten, or elementary school for at least 6 months prior to their participation in the study. The average duration of the children attending Canadian pre-school or elementary school was 1.4 years (the minimum time of English school/preschool exposure was 10 months, and the maximum was 2.0 years). Communicative ability in Russian and English (self-reported by a child and his/her parent) was a part of the eligibility criteria.

In addition, in order to compare the bi/multilingual children's RHL acquisition with the language development of their monolingual peers within the same age group, we recruited an additional group of participants: 13 Russian-speaking monolinguals (MR) (6 girls and 7 boys) from Kemerovo, Russia. The average age of the participants in this group was 5.5. None of them spoke any language other than Russian.

In the article, the participants are referred to as RHL and MR speakers respectively, and the number after these letters indicates the individual participant (e.g., RHL5 stands for Russian as a Heritage Language Speaker, number 5).

Both groups of participants were requested to tell a story represented in a set of six pictures (from a children's online picture book, "*Dobraya skazka v kartinkax*" [A good fairy-tale in

pictures]). The picture-prompted narratives were recorded with a Zoom H2n Handy Recorder in Wave sound format. The narratives were manually transcribed and subjected to linguistic analysis (auditory analysis by 3 trained linguists confirmed with Praat spectrographic analysis) to examine phonological characteristics of the participants' Russian speech. In this paper, we mostly focus on the qualitative descriptions of the bi/multilinguals' phonology in terms of non-canonical forms produced by them. The term "non-canonical" stands for forms which differ from standard adult language forms (e.g., Antomo & Müller, 2018:5). In some earlier research such forms could be referred to as "errors" (e.g., Bar-Shalom & Zaretsky, 2008).

## Results

This section overviews non-canonical phonological word forms produced by bi/multilingual children. The narratives produced by children in both groups (RHL and MR) were on average rather short (about 150 words or 32 utterances total), which limits the phonological data. The sample is therefore not sufficient for building a comprehensive picture of children's phonological development, but it does help to provide some insights into the process.

Features of child language phonologies in the sample can be classified into three major groups: developmental, dialectal, and colloquial forms.

### *Developmental characteristics*

Among developmental features associated with the process of child language acquisition, the following phenomena were observed.

#### *Rhotacism*

Non-canonical articulations in place of the standard adult [r] and [rʲ] sounds (a lamino-postalveolar trill in Russian) were the most common developmental feature among participants, whereby [r or rʲ] could be deleted altogether (2 words: 1 speaker of RHL; 15 words: 3 speakers of MR), or substituted for [l/lʲ] (13 words: 3 speakers of RHL; 2 words: 2 speakers of MR). The sounds [r or rʲ] could also be substituted for [j] (6 words: 3 speakers of RHL; 1 word: 1 speaker of MR), or for [ʁ] (7 words: 3 speakers of RHL; 2 words: 1 speaker of MR). For example, RHL14 pronounced the word "naverno" [nə'vʲernə] (maybe) as "navena" [nə'vʲenə], and "pěryško" ['pʲorʲjškə] (feather) as "pělyško" ['pʲolʲjškə]. MR2 produced the word "derevo" ['dʲerʲivə] (tree) as "dejevo" ['dʲejivə]. R6 articulated the words "igrati" [ig'ralʲi] (played) as [ig'ʁalʲi]. In total, 28 instances of rhoticism were observed in the speech of 10 RHL speakers, and 20 instances in the speech of 7 MR speakers.

#### *Substitutions of post-alveolar fricatives*

The post-alveolar fricatives [ʃ, ʒ] have not been yet fully established in the speech of 7 RHL speakers and 1 ML speaker. These phonemes were substituted by fricatives with more front articulations, that had been already developed in the children's sound inventories. The sound [ʃ] was substituted for [s, sʲ] (13 words: 3 RHL speakers; 1 word: 1 MR speaker) or for [f] (4 words: 3 RHL speakers). For example, RHL6 articulated the word "miška" ['mʲjškə] (little bear) as "mifka" ['mʲjfkə] ([ʃ]→[f] substitution). Speaker RHL12 substituted [ʃ] for [s], e.g., "sliškom" (too much) ['slʲjškəm]→['slʲiskəm].

The sound [ʒ] was substituted for [z, zʲ] in 10 words pronounced by 5 RHL speakers, and in 6 words by 1 MR speaker. For example, RHL11 substituted [ʒ] for [z] in "pobežali" (ran), i.e., [pəbʲi'zəlʲi], articulated as [pəbʲi'zəlʲi]. MR2 pronounced the words "s petuškom" [s pituʃ'kom] (with

a cockerel) as [s pitus'kom]. All of the above substitutions can be described as “fronting,” i.e., moving consonantal articulation closer to the front of the mouth.

### *[l] gliding*

Gliding in child language acquisition is understood as “the replacement of a liquid by a glide” (O’Grady & Archibald, 2016, p. 331). For example, in the case of Russian, these would include substitutions of [l] and [l̥] for [j or w]. It should be noted that [w] is not a regular phoneme of the Standard Russian language, but is a glide arising from vocalization of [l]. In the RHL data subset, 6 instances of gliding were noted in the speech of 4 participants, of which 5 instances were substitutions of [l] for [j], and one of [l] for [w]. For example, speaker RHL4 produced the word “uletela” [ul̥i'tʲelə] (flew away) as “ujetela” [uj̥i'tʲelə]. Speaker RHL22 pronounced the word “nočevali” [nətʃi'vali] (spend the night) as “nočevav̥i” [nətʃi'vav̥i].

MR data reveal 8 cases of gliding by 3 speakers, including 6 words by 2 speakers with [l]à[j] substitutions and 2 words by 1 speaker with [l] à[w] substitutions. For example, MR2 articulated the word “upali” [u'pali] (fell) as “upaji” [u'paji], and speaker MR7 pronounced the word “lotku” [ˈlotku] (boat-Acc Sg) as “wotku” [ˈwotku].

### *Consonant cluster simplifications*

A total of six cases (in the speech by 6 speakers) of consonant cluster ([zd-, -gd-, -tzd-, pt-]) simplifications in RHL children’s sample were present in the data. RHL1 pronounced the word “zdes’ ” [zidʲesʲ] (here) as “des’ ” [dʲesʲ]. Speaker RHL3 articulated the word “togda” [təg'da] (then) as “tada” [tə'da]. Speaker RHL5 pronounced the words “vot zdes’ ” [vot zidʲesʲ] (over here) as “vozdes’ ” [vo'zidʲesʲ] twice. Speaker RHL4 articulated the word “ptička” [ˈptʲitʃkə] (birdie) as “ti čka” [ˈtʲitʃkə], and speaker RHL14 pronounced the Accusative form of the same word as “čičku” [ˈtʃitʃku] (the latter case is likely caused by assimilation).

Similarly, three cases of consonant cluster simplifications ([-kr-, -dr-, -rk-]) were observed in the speech of two MR children. MR2 articulated the word “ukrala” [u'kralə] (stole) as “ukala” [u'kalə], and the word “podružilis’ ” [pədru'zʲilʲisʲ] (made friends) as “poduzilis’ ” [pədu'zilʲisʲ]. MR6 produced “dyku” [ˈdʲiku] in place of “dyrku” [ˈdʲirku].

### *Palatalization of consonants (outside palatalizing contexts)*

This feature was found in 4 words produced by 2 RHL speakers and in 3 words by 1 MR speaker. For example, RHL5 pronounced “dja” [dʲa] as “da” [da] (yes), and “miška” [ˈmʲiʃka] (little bear). MR2 pronounced the words “samyj vysokij” [ˈsamij vʲi'sokʲij] (the highest) as “sjamyj vysökij” [ˈsʲamij vʲi'siokʲij].

### *Sonorant and glide [l, l̥, j] deletion*

Deletion of sonorants and glides occurred in 3 words produced by 2 RHL speakers and in 2 words produced by 2 MR speakers. For example, the word “zajac” [ˈzajits] (hare) in the speech of RHL5 sounded as “zaic” [ˈzaitɕ], and the word “bol’šye” [bəl'ʃʲjɪ] (big, Pl) as “bašii” [bɐ'ʃʲii]. MR2 articulated the word “pojmal” [pəj'mal] (caught) as “pomal” [pɐ'mal].

### *Assimilation*

While assimilation is clearly one of the most frequent phonological processes, occurring in adult as well as child speech (O’Grady & Archibald 2016), in the sample, a few instances of assimilation were observed which are atypical of adult speech. Two instances of assimilation were observed in the speech of 2 RHL children, and two in the speech of 2 MR children. For instance,

RHL14 pronounced “*potom*” [pɐ'tom] (later) as “*totom*” [tɐ'tom], i.e., with place assimilation. MR1 pronounced “*medved*” [mʲɪd'vʲɛdʲ] (bear) as “*mežved*” [mʲɪʒ'vʲɛdʲ] (assimilation for manner), and RHL6 pronounced “*vot tak*” ['vot 'tak] (this way) as “*vodak*” [vɐ'dak] (with intervocalic voicing).

#### *Epenthesis*

Vowel epenthesis was used by 4 RHL speakers in 4 cases to break consonant clusters. Three speakers (RHL10, RHL21 and RHL25) pronounced the word “*korabl*” [kɐ'rablʲ] (ship) as “*korabel*” [kɐ'rabʲelʲ] and one speaker RHL12) articulated the word “*piknik*” [pʲɪk'nʲɪk] as “*pikini*” [pʲɪkʲɪ'nʲɪk]. It should also be pointed out that the “*korabel*” version could also be considered dialectal.

#### *Metathesis*

One RHL participant (RHL12) pronounced the word “*nora*” [nɐ'ra] (burrow) as “*rona*” [rɐ'na] three times, and the word “*korabl*” [kɐ'rablʲ] (ship) as “*koljabr*” [kɐ'ʃabr].

#### *Non-canonical stress placement*

Non-canonical stress placement was not very frequent, and was observed in only 6 words pronounced by 5 RHL speaking children and in 2 words in the speech of 2 MR participants. For example, RHL16 and MR8 produced a form “*upl'yla*” [up'lʲlɐ] in place of standard “*uplyl'a*” [uplʲ'l'a] (swam away). RHL22 and MR5 articulated the word forms “*po b'eregu*” [pɐ 'bʲerʲɪgu] (along the shore) as “*po bereg'u*” [pɐ bʲɪrʲɪ'gu].

The frequencies of the observed phonological processes in children’s speech are summarized in

Table 1. Frequencies of phonological processes in children’s speech

| Phonological Process            | RHL sample  |            | ML sample   |            |
|---------------------------------|-------------|------------|-------------|------------|
|                                 | N instances | N speakers | N instances | N speakers |
| rhotacism                       | 28          | 10         | 20          | 7          |
| Post-alv. fricat. substitutions | 27          | 11         | 7           | 2          |
| l̞j, w                          | 6           | 4          | 8           | 3          |
| Cons clusters simplification    | 6           | 6          | 3           | 2          |
| Stress reassignment             | 6           | 5          | 2           | 2          |
| Out-of-context palatalization   | 4           | 2          | 3           | 1          |
| l, j deletion                   | 3           | 2          | 2           | 2          |
| assimilation                    | 2           | 2          | 2           | 2          |
| metathesis                      | 4           | 1          | 0           | 0          |
| epenthesis                      | 4           | 4          | 0           | 0          |

As can be seen from Table 1, rhotacism and post-alveolar fricative substitutions had the highest frequency in the sample. Due to low frequencies of the phenomena, no statistical comparison of the phonological processes can be made across the phonological development across the two subgroups (RHL and MR), but the processes appear to be similar.

#### *Dialectal characteristics*

Most bi/multilingual children whose parents come from Ukraine (9 participants out of 17) exhibit the impact of Ukrainian and/or southern Russian dialects (due to a dialectal chain effect, Southern Russian dialects are similar to Ukrainian dialects in many features). This impact can be very slight; for example, speakers RHL6, RHL11, RHL16, and RHL 18 use the <gh> [ɦ] phoneme instead of Standard Russian <g> [g], but exhibit no other dialectal features at the phonological level. The dialectal impact may also involve the transfer of some sounds in a few words, as in the speech of participant RHL22 who pronounced the words “*përli*” and “*sidjat*” [‘pʲi’orli], [sidʲi’at] with Southern Russian/Ukrainian sounds: “*perli*” and “*sydjat*” [‘pɛrli], [sid’at].

It is possible that the phonologies of two child participants from Eastern Ukraine were somewhat impacted not necessarily by Ukrainian, but by “*Suržik*” (or “*Surzhyk*”), a mixed language including Southern Russian and Ukrainian forms spoken mostly in some areas of Eastern Ukraine and the Crimea (Masenko 2011; Del Gaudio 2010; Verschik 2004; Verschik 2010). These soundscapes may be better described in terms of a language mix, whereby some words are articulated closer to either Russian or Ukrainian phonologies, e.g., RHL8: “*prišla lisica i stala lovyt kuročku*” [prʲi’ʃla lʲisʲi’tsa i ‘stalə lo’vit ‘kurətʃku] (Standard: “*prišla lisica i stala lovit’ kuročku*” [prʲi’ʃla lʲisʲi’tsə i ‘stalə lə’vʲitʲ ‘kurətʃku]) (the fox came and started catching the hen). However, due to the complexity of “*Suržik*” (Masenko, 2011; Verschik, 2010), and because only two RHL participants exhibited some features close to “*Suržik*,” we cannot provide an in-depth comparison between the speech of these participants and “*Suržik*” within the framework of this article. We elaborate on some specific dialectal features below. No dialectal influences or influences of any other languages were detected in the speech of MR speakers.

#### *[ɦ]*

The Ukrainian/Southern Russian voiced glottal fricative phoneme [ɦ] (which may also be realized as velar voiced fricative [ɣ]), graphically denoted here in transliteration as “gh” was observed in the speech of 8 participants from Eastern Ukraine: RHL2, RHL 3, RHL6, RHL 8, RHL11, RHL18, RHL22, and RHL26. Only one of these participants (RHL3) used the “gh” sound consistently, and one more (RHL6) only used it once (with no occurrences of “g” [g]), whereas six other participants employed both sounds “gh” and “g” (frequencies of the use of “gh” and “g” by participants whose speech included the sound “gh” are provided below in Table 2). MR speakers did not produce any “gh” sounds.

Table 2. The use of “gh” and “g” sounds by RHL participants whose speech included the “gh” sound

| Participants | “gh” frequency | “g” frequency |
|--------------|----------------|---------------|
| RHL2         | 11             | 4             |
| RHL3         | 4              | 0             |
| RHL6         | 1              | 0             |
| RHL8         | 3              | 13            |
| RHL11        | 1              | 1             |
| RHL18        | 2              | 1             |
| RHL22        | 1              | 1             |
| RHL26        | 1              | 10            |

In the case of RHL 2, the use of “gh” or “g” seemed to be dependent on the context. In the narrative and dialogues, RHL2 produced the Ukrainian/Southern Russian <gh> phoneme. However, while reciting a classical Russian poem by the 19th century poet Nikolaj Nekrasov, the child uttered a few words with the Standard Russian velar plosive <g> [g] (for example, “govorit” [gəvə'rit] (speaks) “grud’ [grudʲ]” (chest), “vzgljanut’ [vzglʲi'nutʲ]” (take a look)). However, manifestations of the Ukrainian/Southern Russian <gh> sound were evident in the same poem recital (e.g., “dorogoj” [dərə'fioj] (dear), “ubogij” [u'bofiʲj] (miserable)). Similarly, RHL5 systematically used the <gh> [fɨ] sound in his narrative and answers to the interviewer’s questions, but employed the plosive <g> [g] sound in the words “gosti dorogie” [ˈgosti dərə'gʲi] (dear guests) while retelling the plot of the poem “Muxa-cokotuxa” by Soviet poet Kornej Chukovskij. In the same retelling of the poem, this speaker, however, also used the < gh> [fɨ] sound in the word “ ugošču” [ufɨ'ʃʲ:u] (will give a treat). Both speakers could have heard the poems read in Standard Russian and subsequently reproduced some of the words they remembered with the standard Russian [g] plosive.

The above examples suggest the possibility of some degree of double sound inventory (Standard Russian and dialectal) developing in the speech of some participants from Eastern Ukraine.

#### *Vocalized [v]*

A vocalized “v” typical of Southern Russian and Ukrainian dialects was found in two cases in total: once in the speech of RHL2, who produced a form “a uot” [a'ʊot] in place of Standard “a vot” [a'vot] (and this); and once in the speech of RHL6, who said “uot etu” [ʲʊot 'etu] in place of StR “vot etu” [ˈvot 'etu] (this one-F). Both speakers employed the [v] fricative elsewhere (17 cases of [v] use were observed in the speech of RHL2 and 22 – of RHL6. One MR speaker (MR2) vocalized /v/ (e.g., “vsë rauno” [ˈfsʲo rəʊ'no] as compared to StR “vsë ravno” [ˈfsʲo rə'vno]).



### *Jakan'e*

Realization of unstressed vowels after a palatalized consonant as [ja] is a dialectal feature known as “jakan'e” (Kuznecov 1960: 71). In our sample, realization of unstressed vowels with “ja” instead of the standard “i” was observed twice in the narrative produced by RHL speaker RHL2 (e.g., “*s medvedjam*” [s midvʲi'edʲɐm] as compared to StR “*s medvedem*” [s midvʲi'edʲim] (with a bear)) and in two words articulated by MR speaker MR1 (e.g., “*szadja*” ['zzadʲɐ] in place of the standard “*szadi*” ['zzadʲi] (behind)).

### *Colloquial forms*

Ten colloquial pronunciation forms occurred in the speech of 10 RHL children, and 5 in the speech of 2 MR children. For example, participants RHL2 and RHL10 used the form “*čě*” [tʃʲo] in place of the standard “*što*” [ʃto] (what). Speakers RHL3 and RHL11 pronounced the word “*net*” (no) [nʲet] as “*ne-a*” [nʲe ʔa], which is typical in colloquial casual speech.

Speaker RHL26 used the colloquial form “*šob*” [ʃop] in place of the standard “*čtoby*” [ʃtobʲi] (in order to). MR10 used the conversational form “*sgotovila*” [zgʲɔ'tovʲilə] in place of the standard “*prigotovila*” [priɡʲɔ'tovʲilə].

## **Discussion**

Our study shows similarities in the numbers of non-canonical pronunciation forms between the bi/multilingual and the monolingual groups, which agrees with earlier findings in Makarova & Terekhova 2017, where no significant differences were found in non-canonical pronunciation forms between bi/multilingual and monolingual Russian speaking children. Some other earlier research also suggests that bi/multilingual children and their monolingual peers acquire phonology at similar rates and with similar accuracy (e.g., Goldstein, Fabiano & Washington 2005). We did not observe any “uncommon” patterns in the phonology acquisition of bi/multilinguals compared to those described for their monolingual peers, in contrast to the results in Gidersleeve, Kester, Davis & Peña, 2008. Most developmental processes we observed in the phonology of RHL and MR-speaking children have been described in earlier research for monolinguals (e.g., Gvozdev 1961, 2005).

### *Rhotacism*

The results reported in this chapter align with prior studies of English language development which show that some sounds, including [r], are relatively difficult for children to pronounce and only develop when a child is between 6 and 8, and not simultaneously in all contexts (Gleason & Bernstein Ratner 2013; Hoff 2014). The Russian [r] is a trill involving a higher level of articulation complexity, so it is not surprising that Russian-speaking children experience problems articulating this sound, just like Spanish-speaking children who master their trilled [r] rather late (Catano, Barno & Moyna 2009). Previous studies reveal that [r] is one of the last two sounds acquired by Russian children and that it is mostly established between the ages of 5 and 6 (i.e., the age of the child participants in this study) (Vinarskaja & Bogomazov 2005). Consequently, the sound is not yet established in some children's speech.

### *Post-alveolar fricative substitutions*

Children appear to substitute under-acquired sounds by the ones that are already established in their inventory (Gleason & Bernstein Ratner 2013; Hoff 2014). Substitutions of under-acquired [ʃ, ʒ] for [s, z] have also been observed in Russian monolinguals' speech development in earlier

research (e.g., Gvozdev 1961; Tsejtin 2000). However, the descriptions of the time when children acquire [s, z, ʃ, ʒ] in earlier research appear to be somewhat controversial. According to Paramonova 2009, for example, all these sounds are established in Russian monolingual children's speech between the ages of 4 and 5. However, Paramonova (2009), as well as other researchers (e.g., Gvozdev 1961; Vinarskaja & Bogomazov 2005), also point out the substitution of [ʃ, ʒ] with [s, z] as one of the characteristic features of child phonologies. It appears, therefore, based on the results of our study, that the retroflex [ʃ, ʒ] is established in child speech later than [s, z], and possibly later than the age of 5.

#### *[l] gliding and [l, j] deletions*

In languages other than Russian (e.g., English), gliding (a replacement of a liquid with a glide) has been described as an aspect of children's speech (e.g., Hoff 2014; O'Grady & Archibald 2016). The Russian [l] is known to be one of the two last most difficult sounds in child acquisition, established only by the age of 5 to 6 (Vinarskaja & Bogomazov, 2005). In our data, [l] was not yet fully acquired by some of the children and was substituted with [j, w]. Earlier studies have described [l̩j] substitutions (Paramonova 2009), but not [l̩w] substitutions. According to our data, [l, j] also sometimes get deleted in children's speech (a finding that coincides with earlier results, but for younger children of 3-4 years) (Paramonova 2009). This suggests that the research accounts of the stages of phonemic acquisition by children may need some reconsideration.

#### *Consonant cluster simplifications and vowel epenthesis to break consonant clusters*

Consonant cluster reduction has been observed in children's speech in other languages that have consonant clusters, such as English and German (Gleason & Bernstein Ratner 2013; Hoff, 2014). In English, consonant clusters can be acquired by the age of 7 or 8 (Gleason & Bernstein Ratner 2013). Consonant cluster simplifications have also been described in the speech of monolingual Russian children (Gvozdev 1961; 2005; Tsejtin 2000). Similarly, in this study, some 5 to 6-year-old children had difficulties articulating consonant clusters. Besides the deletion of consonants from clusters, vowel epenthesis could be an alternative strategy to break clusters that are hard for children to articulate (O'Grady & Archibald 2016; Zhukova, Mastjukova Filičeva 2006). Vowel epenthesis was observed in our study as a way to avoid a word-final consonant cluster only in one word "korabl'", articulated as "korabel'" by a few speakers.

#### *Palatalization of consonants (outside palatalizing contexts)*

The palatalization of consonants observed in this study had been earlier identified as a feature of Russian children's speech, but for a younger group (ages 3 to 4) (Gvozdev 1961; Vinarskaja & Bogomazov 2005). It appears that some palatalization may persist among some children until the age of 5 or 6.

#### *Assimilation*

Assimilation is generally typical both in StR adults' speech and in children's speech (Gleason & Bernstein Ratner 2013; Gvozdev 1961). In our study, we only observed a total of three cases of assimilation (place, manner and intervocalic voicing).

#### *Metathesis*

According to earlier research, metathesis is not a very frequent feature in children's Russian speech (Gvozdev 1961), and we only found four instances of it in the speech of four RHL speakers.

#### *Non-canonical stress placement*

Due to the nature of Russian free stress that can move on and off the stem in inflection and derivation, both children and adults may experience some difficulties with Russian stress placement (Gvozdev 2005; Žukova et al. 2006). Some non-canonical stress placements were observed in our study in the speech of both RHL and MR child speakers, but such placements were infrequent.

#### *Direction and individual progress in phonology development*

Multiple studies reveal a universal tendency of phonological development generally progressing from the formation of easier consonants articulated in the front of the mouth (e.g., labial and alveolar stops) to more difficult ones (e.g., postalveolar fricatives); however, this process is also idiosyncratic for each child (e.g., Gleason & Bernstein Ratner 2013). In order to deal with sounds that are yet missing, children commonly substitute under-acquired sounds by the ones already established in their inventory (Hoff 2014), which also appears to be a universal tendency in child language acquisition. We observed a progression of sound inventory development among our participants whereby some children have more difficult consonants [ʃ, ʒ, r] fully developed, some have not developed these at all and therefore substitute them for [s, z, j/ɹ], and some children produce difficult consonants, but not yet in all contexts. Unlike English-speaking children who often develop [s, z] only between the ages of 7 and 9, none of the Russian-speaking children in the 5-6 age group had any difficulties producing [s, z]. These results suggest that similar sound substitutions patterns can be identified in child language phonology acquisition across languages. At the same time, the results support the existence of cross-linguistic differences in phonological development as well as the idiosyncratic nature of phonemic inventory acquisition by individual children (Hoff 2014).

### **Conclusion**

Studies of language development by bi/multilingual children are crucial for developing a theory of language acquisition as well as for bridging the achievement gap between linguistic majority and minority children (Hoff 2014: 263). Bilingual studies often yield controversial results, presumably due to the wide variability of bi/multilingual contexts (Hoff 2014: 264). Therefore, the addition of languages and contexts enriches acquisition theory. Our study provides an analysis of Russian language development at the phonological level by bi/multilingual children in Saskatchewan, Canada.

The results of the study yield evidence that can be interpreted in the light of universal features of child language acquisition. The study confirms a tendency toward the **development** of phonological inventory starting from consonants that are relatively easy to articulate (labials and stops) to more complex ones, such as [ʃ, ʒ, r, l]. Common phonological development processes, such as consonantal cluster reduction, assimilation, and consonantal substitutions, are observed in a variety of world languages.

The bi/multilingual participants in our study (aged 5-6) show a level of Russian language acquisition similar to the linguistic development of their monolingual peers in Russia, likely because all the participants had a high level of language exposure in the families.

## Bibliography

- Antomo, M. & Müller, S. (2018). Non-canonical verb positioning in main clauses: Phenomena and research questions. In: Antomo, M. & Müller, S. (Eds.). *Non-canonical verb positioning in main clauses*. Hamburg: Buske, 5-20.
- Baker, C. (2001). *Foundations of bilingual education and bilingualism*. Clevedon: Multilingual Matters.
- Bar-Shalom, E. G., & Zaretsky, E. (2008). Selective attrition in Russian-English bilingual children: Preservation of grammatical aspect. *International Journal of Bilingualism*, 12(4), 281–302.
- Catano, L., Barlow, J & Moyna, M. (2009). A retrospective study of phonetic inventory complexity in acquisition of Spanish: Implications for phonological universals. *Clinical Linguistics and Phonetics*, 23, 446-472.
- Del Gaudio S. (2010). On the Nature of Suržyk: a Double Perspective. *Wiener Slawistischer Almanach*, 75. München – Berlin – Wien.
- Duff, P. (2008). Heritage language education in Canada. In D. Brinton, O. Kagan & S. Bauckus (Eds.). *Heritage language education: A new field emerging* (pp 71-90). New York: Routledge.
- Flynn, S., Foley, C. & Vinnitskaya, I. (2005). New paradigm for the study of simultaneous v. sequential bilingualism. In J. Cohen, K. T. McAlister, K. Rolstad, and J. MacSwan (Eds.) *ISSB4: Proceedings of the 4th International Symposium on Bilingualism*, 768-774. Somerville, MA: Cascadilla Press.
- Gagarina, N. (2003) The early verb development and demarcation of stages in three Russian-speaking children. In *Development of Verb Inflection in First Language Acquisition: A Cross-Linguistic Perspective*, eds D. Bittner, W. U. Dressler and M. Kilani-Schoch. Berlin: De Gruyter, 131–169.
- Gagarina, N. & Klassert, A. (2018) Input dominance and development of home language in Russian/German bilinguals. *Frontiers in Communication*, 3, 40p, DOI=10.3389/fcomm.2018.00040
- Genesee, F. & Nicoladis, E. (2007). Bilingual first language acquisition. In E. Hoff & M. Shatz (Eds.). *Blackwell handbook of language development* (pp. 324-344). Oxford, UK: Blackwell.
- Gidersleeve, C., Kester, F., Davis, B. & Peña, E. (2008). English speech sound development in pre-school children from bilingual Spanish-English environments. *Language, Speech and Hearing Services in Schools*, 39, 314-328.
- Gleason, J. B., & Bernstein Ratner, N. (2013). *The Development of Language*. 8<sup>th</sup> ed. Boston: Pearson.
- Goldstein, B., Fabiano, L. & Washington, P. (2005). Phonological skills in predominantly English-speaking, predominantly Spanish-speaking and Spanish-English bilingual children. *Language, Speech and Hearing Services in Schools*, 36, 201-218.
- Gor, K. (2019). Morphosyntactic knowledge in late second language learners and heritage speakers of Russian. *Heritage Language Journal*, 16 (2), 124-150.
- Gvozdev, A. N. (1961). *Voprocj izuchenija detskoj reci*. Moscow: Izd-vo Akademii Pedagogiceskix Nauk, RSFSR.
- Gvozdev, A.N. (2005). *Ot pervyx slov do pervogo klassa: Dnevnik nauchnyx nabljudenij*. Moscow: Komkniga.
- Hoff, Erika. (2014). *Language Development*. 5<sup>th</sup> ed. Belmont: Wadsworth Cengage Learning.
- Jee, M. J. (2017). Heritage language proficiency in relation to attitudes, motivation, and age at

- immigration: a case of Korean-Australians. *Language, Culture and Curriculum*. 31(1), 70-93.
- Jia, R., and Paradis, J. (2015). The use of referring expressions in narratives by Mandarin heritage language children and the role of language environment factors in predicting individual differences. *Bilingualism: Language and Cognition*, 18, 737-752.
- Kazanina, N., & Phillips, C. (2007). A developmental perspective on the Imperfective Paradox. *Cognition*, 105, 65–102.
- Kim, J., Montrul, S., & Yoon, J. (2009). Binding interpretations of anaphors by Korean heritage speakers. *Language Acquisition*, 16, 3–35.
- Kissling, E. M. (2018). An exploratory study of heritage Spanish rhotics: addressing methodological challenges of heritage language phonetics research. *Heritage Language Journal*, 15 (1), 25-70.
- Klassert, A., Gagarina, N., & Kauschke, C. (2014). Object and action naming in Russian- and German- speaking monolingual and bilingual children. *Bilingualism: Language and Cognition*, 17 (1), 73-88.
- Makarova, V. & Terekhova, N. 2017. Russian language proficiency of monolingual and Russian-English bi/multilingual children. *Cahiers de L’ILOB*, 8, 53-69.
- Masenko, L. (2011). *Syrzhyk: mizh Movoju i Jazikom*. Kiev: Kievo-Mogiljans’ka Akademija.
- Montrul, S. (2010). Current issues in heritage language acquisition. *Annual Review of Applied Linguistics*, 30, 3-23.
- Montrul, S. (2012). Is the heritage language like a second language? *EUROSLA Yearbook*, 12, 1-29.
- Montrul, S. (2015). *The Acquisition of Heritage Languages*. Cambridge: Cambridge University Press.
- Nicoladis, E., Da Costa, N., & Fourscha-Stevenson, C. (2016). Discourse relativity in Russian-English bilingual preschoolers’ classification of objects by gender. *International Journal of Bilingualism*, 20, 17-19
- O’Grady, W. and Archibald, J. (2016). *Contemporary Linguistic Analysis*. 8<sup>th</sup> ed. Toronto: Pearson.
- Paradis, J., Crago, M., Genesee, F., & Rice, M. (2003). French-English bilingual children with SLI: How do they compare with monolingual peers. *Journal of Speech, Language and Hearing Research*, 46, 1-15.
- Paramonova, L. (2009). *Logopedija dlja vsej (Speech therapy for everyone)*. St. Petersburg: Izdatel’skij dom Peterburg.
- Polinsky, M. (2005). Word class distinctions in an incomplete grammar. In D. Ravid and H. Bat-Zeev Shyldkrot (Eds.). *Perspectives in language and language development* (pp.419-436). Dordrecht, Kluwer.
- Polinsky, M. (2008). Heritage language narratives. In D. Brinton, O. Kagan, & S. Bauckus (Eds.). *Heritage language education: A new field emerging* (pp. 149–164). New York, NY: Routledge.
- Polinsky, M. (2018). *Heritage languages and their speakers*. Cambridge: Cambridge University Press.
- Polinsky, M., & Kagan, O. (2007). Heritage languages: In the ‘wild’ and in the classroom. *Language and Linguistics Compass*, 1, 368–395.
- Scontras, G., Fuchs, S., & Polinsky, M. (2015). Heritage language and linguistic theory. *Frontiers in Psychology*, 6, 1-20.
- Silva-Corvalán, C. (2014). *Bilingual language acquisition: Spanish and English in the first six years*. Cambridge: Cambridge University Press.
- Statistics Canada. (2011). *Linguistic Characteristics of Canadians*. Available at <http://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-314-x/98-314-x2011001-eng.pdf> (5 January 2018).

- Trask, R. L. (2007). *Language and Linguistics. The Key Concepts*. London: Routledge.
- Tsejtlin, S. N. (2000). *Jazyk i rebënok lingvistikadetskoj reči*. Moscow: VLADOS.
- Verschik, A. A. (2004). Typology of Surzhyk: Mixed Ukrainian-Russian Language. *International Journal of Bilingualism*, 8(4): 409-425.
- Verschik, A. (2010). Contacts of Russian in the post-Soviet space. In: Li Wei (Ed.). *Applied Linguistics Review*, pp.85-128; Berlin/ NewYork: Mouton De Gruyter.
- Vinarskaja, E. N. and Bogomazov, G. M. 2005. *Vozrastnaja fonetika. (Age phonetics)*. Moscow: Astrel'.
- Žukova, N. S, Mastjukova, E. M., Filičeva, T. B. (2006). *Preodolenie obschego nedorazvitija rechi udoškol'nikov*. Ekaterinburg: Litur.

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