From Russia with /l a v/ - Transitioning into a New Culture and Phonology

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Novgorod, Russia. photo Belyakov, 2008
Dah, This Workshop Will:

- Analyze some monolingual (R) and bilingual (RE) children populations
- Present a comparison of English vs. Russian phonological systems
- Comment on ways to distinguish between a delay/ disorder from ESL learning issues.
Pocheh’moo? Why?

- “9.7 mln US children speak a language other than English at home.”
  (Wright and Gildersleeve-Neumann, 2005; US Census Bureau, 2000)

- Scarcity of research and evidence –based practice in RE bilingual development.

- This knowledge is important for working with Russian-language background (RLB) populations for distinguishing between ESL learning issues and phonological and articulation disorders and delays, as well as in treating them.
To Effectively Deliver Therapy:

- SLPs need to have a general understanding of language diversity in the country.

- SLPs should have some knowledge of the phonological system of their bilingual and RL-background clients’ first language.

- The phonological system and developmental norms in the child’s first language will most likely impact the child’s English language skills and might prepare us for dealing with the child’s difficulties in acquiring the English phonological system.
So – What Languages Do We Speak?

LANGUAGE SPOKEN AT HOME AND ABILITY TO SPEAK ENGLISH

• Population 5 years and over - 279,012,712
  • (US population on November 9, 2008 - 305,616,379)

• English only - 80.3%

• Language other than English - 19.7%

• Speak English less than "very well" - 8.7%

U.S. Census Bureau, 2007, American Community Survey

<table>
<thead>
<tr>
<th>Rank</th>
<th>Language</th>
<th>Number of speakers</th>
<th>2000</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spanish</td>
<td>28,101,052</td>
<td>1</td>
<td>7,339,172</td>
</tr>
<tr>
<td>2</td>
<td>Chinese</td>
<td>2,022,143</td>
<td>5</td>
<td>1,249,213</td>
</tr>
<tr>
<td>3</td>
<td>French</td>
<td>1,643,838</td>
<td>2</td>
<td>1,702,176</td>
</tr>
<tr>
<td>4</td>
<td>German</td>
<td>1,382,613</td>
<td>3</td>
<td>1,547,099</td>
</tr>
<tr>
<td>5</td>
<td>Tagalog</td>
<td>1,224,241</td>
<td>6</td>
<td>843,251</td>
</tr>
<tr>
<td>6</td>
<td>Vietnamese</td>
<td>1,009,627</td>
<td>9</td>
<td>507,069</td>
</tr>
<tr>
<td>7</td>
<td>Italian</td>
<td>701,220</td>
<td>4</td>
<td>1,008,370</td>
</tr>
<tr>
<td>8</td>
<td>Korean</td>
<td>894,063</td>
<td>8</td>
<td>626,478</td>
</tr>
<tr>
<td>9</td>
<td>Russian</td>
<td>706,242 304</td>
<td>15</td>
<td>241,798</td>
</tr>
<tr>
<td>10</td>
<td>Polish</td>
<td>667,414</td>
<td>7</td>
<td>723,483</td>
</tr>
</tbody>
</table>
FYI: next 10

- Arabic. 11  614,582. 13  355,150
- Portuguese 12  564,630 10  429,860
- Japanese 13  477,997 11  427,657
- French Creole 14  453,368 19  187,658
- Greek 15  365,436 12  388,260
- Hindi 16  317,057. 14  331,484
- Persian 17  312,085 18  201,865
- Urdu 18  262,900 (  NA  NA
- Gujarathi 19  235,988 26  102,418
- Armenian 20  202,708 20  149,694
- All other languages 3,182,546 (X) 4,485,241
Some stats on ‘Rooskikh Ameri’kantsy: ‘Tsyfry I ’fakty

- Thus, the number of Russian-speaking population almost **tripled** by 2000.

- There are about 478,171 Russian-speaking residents in NYC.

- Ukrainians - 127,145 - are the fastest growing ethnic minority in NYC.

  (based on American Community Survey, US Census Bureau, 2008)
“Mo’yah ‘Mama!” (Nina, 3)
Some facts on International Adoptions from Russia

● Older IA Children form Russia - another RL background population

● Different population: these children are bilingual for a very short time period. (The older the child - the longer he/she may retain Russian) – very different from bilinguals in RL families.

● Profile of Children Adopted From Russia in 2006:
  7%    under 1 year of age
  65%   1 – 4 years of age
      ( INS Immigration Statistics, 2008)

  And so:
  28% older than 4 years of age - important!
Pah ‘Russki: From Russian sources:

- More than 100,000 children are abandoned in Russia every year. [http://www.hrw.org/campaigns/russia](http://www.hrw.org/campaigns/russia)
  
  For 2007 (only):
- Children abandoned in 2007 - **171,044**
- Children adopted by Russian families: **9,530**
- Children adopted internationally: **4,536**


- 1% of these children adopted by American families before 2007. Now less. (close to our stats).

- Adoptions by Russian families are scarce: Still strong societal stigma against adoption + Medical labeling as MR of children with even mild delays due to institutionalization, or visible physical deformity.

  (Belyakov, 2005; Duma representative, NTV, March 2005, Human Rights Watch, 2008)
IA Sta’tistikā for 2007:

- International Adoptions (IA) more than doubled in the last ten years – with a sharp increase in Russian adoptions from 1990 to 2004 - and then a sharp decrease in 2007.

- Total: 56,086 Russian Adopted (RA) children since 1992

- From 5,865 RA children in 2004 to 2310 children in 2007 (the drop is due both to political changes in Russia and their apprehension of American adoptions after the 13 cases of children killed in the U.S. by their adoptive parents. R. government enforced stricter control of “prospective IA parents’ medical history”).

- 606 from Ukraine
- 540 from Kazakhstan
- (No more adoptions from Belarus).

(U.S. Embassy in Moscow, US Department of State, 2008)
Skolko? How many before 2007?

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of RA Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>2,310</td>
</tr>
<tr>
<td>2006</td>
<td>3,706</td>
</tr>
<tr>
<td>2005</td>
<td>4639</td>
</tr>
<tr>
<td>2004</td>
<td>5865</td>
</tr>
<tr>
<td>2003</td>
<td>5209</td>
</tr>
</tbody>
</table>

(US Department of State, 2008)
Languages Spoken Most or Equally in Top Countries of Origin
(based on data from U.S. State Department, 2008)
Prob’lehmy?

1. RA children could be at **a high risk** for SL delays and disorders due to:

   - Abrupt loss of exposure to their first language
   - Pre-adoption institutionalization and poor conditions during the crucial time of early development
   - Severe parental neglect and poverty
   - Rampant drug and alcohol abuse in biological families
   - Lack of prenatal care
Problehmy? (cont.)

- late gross and fine motor development
- serious past and present medical conditions
- rampant otitis media
  Glennen’s study mentions “the high rate of abnormal middle ear pressure -53%- in newly arrived children” (2005)
- reported (and under-reported) delay in Russian speech-language development
  “Speech and language delays are one of the most consistent deficiencies noted after adoption...
  ...60% of children age 2½ in a Russian orphanage had no expressive language.” (Mason, 2005)
Pa’zhahlustah!
IA children’s parents need help too.

- Adoptive parents need professional help immediately on their children’s arrival – we need to advocate for it starting with the adoption agencies and social services.

- Parents might face problems they may initially be ill-equipped to deal with:
  - Abnormal behaviors (in Mason’s study, 46% of IA children: hyperactivity, hypersensitivity to touch and sound, bed-wetting, rhythmic rocking behaviors)
  - From 45% - 70% of RA children have ADHD (compared to the 7% in U.S. general children population)
  - Oppositional-defiant disorder, etc. (Russian media on child abuse in adoptive families)
Nyet to the WW approach and Dah to EI

Latest research: IA children often have a higher incidence of language deficits and reading problems later.

Know the reasons RA children may not be getting services:

- Parents unfamiliar with the risks and EI services
- SLPs’ unfamiliarity with the latest research in IA issues
- Lack of bilingual specialists
- Lack of evaluation and specific therapy tools
- SLPs need to advocate for these children’s Early Intervention. (at least, on a timely evaluation)
So how many kids need SL intervention?

- Numbers are scarce, but we do have some research by now.
- First - **good news**: Majority of RA children are making amazing progress acquiring their second first language quickly after their arrival.

- Glennen’s study (2005) found 28% of the RA children in her research sample in need of SL therapy; 7% borderline and recommended for a follow-up evaluation. That’s more than 33% of RA children in need of SLP services. This is high compared to the general population.
Ooni’kalnaya situahhtsiya! Unique Situation

For RA children 12 – 24 months:

• Abrupt loss of the first language—most often within 3 months (up to 6 months sometimes)—while English is not yet acquired.

• So IA children live through “a no-language” time zone.

• However, some receptive RL skills remain longer.

• English becomes their SECOND FIRST Language!
How about older RA children?

- Older (than 24 months) IA children – retain RL longer and for some time may be bilingual.

- My experience: SLPs’ requests for help with assessments of 5 - 13-year-old children.
**Osto’rozhno!**
The Dangers of “Wait-Watchers’ Approach”:

- Much too often pre-school and school administrators advise both adoptive parents and Russian-American families to “wait-and-watch” their kids before they get evaluated for language and speech disorders.

- Parents are often advised to wait for the English language to develop enough for an evaluation in English to be possible.

- Advisors mean well, but in fact with the WW approach, the children are at risk for falling even more behind in their speech development.
Some Findings in Research on Russian-English bilingual children

- Most bilingual research has been done on Spanish-English speakers, while research in Russian-English children has been scarce.

- Bilingual children often develop two separate linguistic systems.

In Wright and Gildersleeve-Neumann’s study (2005) of SQ (sequential) and SM (simultaneous) RE children:

- Bilingual (RE) children tended to have more errors than E. speakers.
- RE children showed “some unique error patterns early in development.”
- Sequential RE kids made more articulation errors than Simultaneous RE learners.
Implications for Phonological and Articulation Assessment

Little is known about the phonological and articulation development of RA children.

Start with:

• Obtaining information (copy of an orphanage medical report in translation; copy of previous evaluations; pediatrician’s report, etc.)

• Detailed interview with parents (observations of the child’s speech development, behavior, etc.)

• Collect a speech sample if possible (use an interpreter, another bilingual professional, a Russian community member, etc.) Teach them what you are looking for.
Soon after the child’s arrival:

- Collect a phonetic inventory (both in Russian and in English – if and when possible) and analyze it: Is the child likely to have a phonological or articulation delay/ disorder or is it just learning a second first language?

- If not possible- assess non-language, pre-verbal skills and social interaction (as you normally would).
**You say “tomato” - I say “to’mahtyh”**

Some Comparison of English and Russian Phonological Systems.

<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
<th>Clinical Implications for Assessment and Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>All English consonants are used in all word positions with the exception of /ŋ/. This sound is not used in initial position</td>
<td>All Russian consonants can be used in initial, medium, and final positions</td>
<td>Thus, deletion or substitution of a consonant in Russian may constitute an articulation error or a phonological process.</td>
</tr>
</tbody>
</table>
Sounds /w/, /ŋ/, /dʒ/, /θ/, /ð/ don't exist in Russian. RE children may either not hear the difference or they often substitute them with other sounds already in their phonological repertoire (e.g., /m/ for /w/ as in "window," "dis" for "this," etc.). They might need help of speech-language pathologist to master these sounds. However, we need to make sure we exclude a phonological processes disorder or delay (e.g., in these cases, stopping).
<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
<th>CI</th>
</tr>
</thead>
</table>
| Voiced consonants in final position remain voiced. | Voiced consonants in final position are devoiced. (e.g., “nozh” (knife) is pronounced as [ŋ], Not [ʒ]) | Thus, voiced consonants in final position in Russian will turn into their voiceless cognates. (e.g., it is not possible to test /b/ in final position without accepting /p/ as the correct answer).

Devoicing of a final voiced consonant in English (e.g., /bet/ for /bed/ and /bets/ for /bedz/ most likely is not an artic. delay or disorder, but an ESL learning issue.)
“Softness” or “hardness” of a consonant (palatalization) does not constitute a phonemic difference. (It could also be dialectal)

Most consonants have “hard” and “soft” (palatalized) counterparts. The difference is phonemic. (e.g, [ˈugal] - corner vs. [ˈugal]̣ - coal)

Thus, “softening”/palatalization of a consonant is most likely an ESL issue (wrong tongue position). It could also be a transfer from the phonological process of palatalization - very common among young RL children.

(see next frame)
Consonant palatalization

- The opposition of palatalized ("soft") and non-palatalized ('hard') consonants is **one of the most important characteristics of the phonological system of Russian**.

- In Russian, palatalized consonants are characterized by the secondary articulation of raising the middle part of the tongue towards the hard palate, as if to an [i]-like position. (see table above)
Phonological Process of Palatalization in RL children

- Phonological process of palatalization of “hard” consonants is used by majority of Russian-speaking children.

- The ‘overall softness of consonants’ perceived by adults is characteristic of the speech of not only Russian-speaking children.

- However, in Russian, palatalization creates phonemic differences – while in English, it does not.
<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>z</td>
<td>z</td>
<td></td>
</tr>
<tr>
<td>s</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>ʒ</td>
<td></td>
</tr>
<tr>
<td>h</td>
<td>x (velar fricative, in English often spelled as ‘kh”)</td>
<td></td>
</tr>
<tr>
<td>tʃ</td>
<td>tʃ</td>
<td></td>
</tr>
<tr>
<td>dʒ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j l</td>
<td>j l</td>
<td></td>
</tr>
<tr>
<td>n r</td>
<td>r (trilled)</td>
<td></td>
</tr>
<tr>
<td>--</td>
<td>ts</td>
<td></td>
</tr>
</tbody>
</table>

Teach the retroflex /ɹ/ rather than the bunched back – it is more visible and involves the apical part of the tongue – as it does in Russian. Do remember that developmentally, the trilled /r/ sound comes in later, just like the English /ɹ/. Young children often either use **gliding** (/j/ for /r/) or **substitution** of /l/ for /r/ (e.g., [‘lipka] for [ripka] – little fish; or in English, [ lid] for [ɹid])
All obstruants have voiced and voiceless cognates. | Same | So, voicing and devoicing processes are not an ESL issue, but possibly a delay or disorder.

Thus, there are more (almost twice) consonants in Russian than in English. | So, with the exception of the E. consonants that are lacking in R. – RE children should be able to produce all E. consonants – if not, it’s a delay.
<table>
<thead>
<tr>
<th>English</th>
<th>Russian</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited amount of clusters. (Not all consonants can be combined into a cluster).</td>
<td>Many clusters. Some have as many as 4 consonants (&quot;fstrecha&quot; – meeting)</td>
<td>Usually, RE children don’t have trouble with E. clusters – after the developmental norms are reached. (So a problem with clusters can be a phonological disorder or delay).</td>
</tr>
</tbody>
</table>
So, consonant clusters – *neht prob’lem!*

Thus, consonant inventory in Russian is quite complex and many consonants join in cluster-like compositions – up to 4 consonants (e.g., “vstrecha”) and in different word positions. (English allows up to only three consonants in a cluster.

- Result: clusters are not a problem for RE children. (granted they reached developmental milestones of cluster production).
- Thus, cluster reduction in RE kids IS a delay or disorder.

- Different from other languages: e.g., Spanish. “Spanish allows only two-member onset clusters. Because of this difference, cluster reduction is a phonological pattern that, at a given chronological age, would be developmental in English but "delayed" in Spanish. (Goldstein & Fabiano, 2007)
<table>
<thead>
<tr>
<th>Vowels</th>
<th>English</th>
<th>Russian</th>
<th>CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 vowels:</td>
<td>α æ e ε ο o u i ι ʊ ʌ Ϊ ʌ ~ έ ~</td>
<td>6 vowels (or 5 – depends on the researcher): a e i o u i</td>
<td></td>
</tr>
</tbody>
</table>
| (with the /o/ vowel only in stressed positions, and produced as /a/ in unstressed positions.) | (with the /o/ vowel only in stressed positions, and produced as /a/ in unstressed positions.) | Thus, the English vowel system is much more complicated and variable. The Russian vowel system is considerably smaller and less complicated. This may lead to misperception and mispronunciation of different English vowels by RE speakers.
Russian Vowels

(based on van der Stelt, Lyakso, Pols & Wempe, retrieved October 12, 2008)
Russian Vowels
Developmental Sequence

- All Russian vowels develop during the first two years.

- The first vowels - /a/ and /e/.

- Then /i/, /o/ and /u/

- The last one is /ɨ/. The most complicated sound.

- So, the usual developmental sequence of vowels is as follows: a e i o u ɨ

  (Van der Stelt, Lyakso, Pols & Wempe, 2002)

- Some slight variations described by different researchers:
  e.g., a u o i e ɨ (Zharkova, 2002).
More Vowel features

• Duration: not phonemically important in Russian. The two somewhat longer vowels are /a/ and /e/.

• Stress: Stressed vowels differ from unstressed ones only in duration (so stress is “temporal”).
English | Russian
---|---
**Word Stress**
fixed: 8 patterns | non-fixed

- **Rhythm**
timed | no

- **Aspiration**
yes | no

- **Syllable shape**
variable | variable

- **Word length**
shorter | longer
continued

- “a simpler vowel system”
- “More complex consonant articulations”
- More open syllables
- Longer words
- No final voiced obstruents
Spah’seebah!

St. Petersburg, summer 2008  Photo by Irene Belyakov
References


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• U.S. Census Bureau, 2007, American Community Survey


