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Language Development of Bilingual Russian/English Speaking Children Living in the United States: A Review of the Literature

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Abstract

The number of bilingual speakers in the United States is increasing. Children in particular provide unique contributions and challenges to the English-speaking communities in which they live. Various aspects of the young bilingual population have been studied, including an emphasis on the communicative abilities and trends of such children. However, there is a paucity of research regarding communication of bilingual Russian/English-speaking children. The purpose of this project is to review the existing literature on the language development of bilingual Russian/English-speaking children as compared to that of monolingual English-speaking children to establish grounds for further research about this increasing population. The findings encompass the following areas of language development: phonology, syntax (grammar), semantics (vocabulary), and pragmatics (social use). Each area of language development is explored in regards to whether or not differences exist between bilingual children and monolingual children. The review reveals that differences do exist between the language development of bilingual children and monolingual children. There are marked variations in phonology between the Russian language and the English language, and this affects English acquisition. There are also differences in syntax, which has an impact on English acquisition and Russian maintenance. Semantics may be an area of difficulty for bilingual children, with deficits possible in both languages. Some transfer effects exist in learning English pragmatics, but bilingual children eventually come to use English pragmatic models exclusively. This literature review calls for future research in the field of communication disorders and sciences regarding assessment and treatment of bilingual children in general and Russian/English-speaking children in particular.

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Introduction

The United States (US) is home to a variety of cultures and languages, with both immigrants and native-born Americans contributing to the diversity of the country. Bilingualism is common among the population of children born in the United States to immigrant parents. According to Kan (2010), around 19.6% of the US population speaks a non-English language in the home. A majority (63%) of this group speaks Spanish, and the other 37% speak another minority language. This population poses a unique challenge for both its native language-speaking community and the English-speaking community. Bilingual speakers of the majority foreign language in the US, Spanish, have been increasingly studied. However, it is unknown whether findings based on these studies can be generalized to other minority language groups (Gildersleeve-Neumann & Wright, 2010).

Although the population of Russian-English bilingual children is growing and becoming a substantial part of the nation's schools and communities, there is a lack of research regarding language development in association with this group. In fact, the Russian language had the largest proportional increase from 1990 to 2000 of all the non-English languages spoken in the US (Bergman, 2003).

Children learning rule systems for more than one language could develop language differently than monolingual children (Goldstein & Washington, 2001; Holm & Dodd, 1999). In order to avoid mislabeling bilingual children with a language difference as having a language disorder, it is important to understand such developmental differences.

Among other professionals, speech-language pathologists (SLPs) are likely to have bilingual children in their caseloads. It has been noted that it is infeasible to correctly evaluate and

diagnose disordered speech in bilingual children without awareness about typical bilingual phonological development in the native language (Gildersleeve-Neumann & Wright, 2010). Therefore, further research about the bilingual pediatric population in general and the Russian-English pediatric population in particular is necessary.

The specific bilingual Russian/English-speaking group on which this review is focused is that of heritage speakers. Heritage speakers are generally not required to be fluent speakers of the heritage language, but some level of proficiency is assumed (Bar-Shalom & Zaretsky, 2008). Children born in the US to immigrant parents from Russia may be considered heritage speakers because they likely speak Russian at home and with relatives but speak English in school and with friends. As such, heritage speakers generally display a reasonable level of language proficiency in both languages.

This study reviews the existing literature about the language development of bilingual Russian/English-speaking children living in the United States. Findings encompass the following areas of language development: phonology, syntax, semantics, and pragmatics.

Phonology of Language

Differences between Russian and English Phonology

There are distinctive phonological aspects between the Russian and English languages. The Russian language consists of 33 consonants and 5 vowels. The following English phonemes are not present in Russian: /w θ ð ŋ h/ (Gildersleeve-Neumann & Wright, 2010). Most of the Russian consonants are differentiated by a palatalization feature, which is one of the most complex and important aspects of Russian phonology that distinguishes the Russian language from the English language (Zharkova, 2005). Another key difference is the lack of voicing of

final obstruents (i.e., a fricative or plosive speech sound), whereas final obstruents may be voiced

or unvoiced in English. There is a larger variety of dorsal and palatal sounds in Russian, and

there are almost double the amount of Russian stops and nasals used phonemically as compared

to English (Gildersleeve-Neumann & Wright, 2010). In regards to vowels, the 5 vowel

phonemes in Russian form a vowel system that is simpler than the English vowel system, which

consists of 15 vowel sounds. There is also a tense/lax vowel contrast in English that is not

present in Russian (Gildersleeve-Neumann & Wright, 2010). Another area of difference

between Russian and English is in syllable and word shape patterns. While English has a

prevalence of one-syllable words, most Russian words are two to three syllables and often range

to as many as eight syllables (Gildersleeve-Neumann & Wright, 2010). Additionally, sequences

of a few consonants together occur frequently in Russian (Gildersleeve-Neumann & Wright,

2010). Gildersleeve-Neumann and Wright (2010) summarize the comparison between Russian

and English phonology:

> Russian has a more complex consonant inventory and a much smaller and simpler
>
> phonemic vowel inventory than English. On average, words in Russian have more
>
> syllables, more varied stress patterns, and more articulatorily complex consonant
>
> segments than those in English. It is these areas of difference then that could be expected
>
> to influence English phonological acquisition in Russian-English children (p. 432).

Past research has indicated that accuracy of vowels and consonants in typically developing

bilingual children is comparable, but not equal to that of monolingual children (Bunta, Fabiano-

Smith, Goldstein, & Ingram, 2009). Research must continue to explore phonological

development in bilingual children, and SLPs working with Russian/English-speaking children

must bear in mind that discrepancies between the language development of monolingual and bilingual children are not necessarily indicative of disorders.

Existing Research Findings

In a study about English speech acquisition in children learning Russian and English, Gildersleeve-Neumann and Wright (2010) explored the effects of Russian phonetic and phonological properties on English word productions by transcribing single-word samples from a group of Russian/English-speaking children and a group of English-only children. Results demonstrated similarities in the groups' vowel phonetic inventory. Consonant inventories were similar as well, although /θ/ and /ð/ were produced with much lower frequency in the Russian/English group. Further similarities showed that consonant cluster sequences were not a point of difference between the two groups. Additionally, children in both groups produced some non-English phonemes in their English speech, but this was more common in the Russian/English group. In particular, the Russian phoneme [a] and the Russian alveolar trill [r] were produced only by Russian/English-speaking children. The researchers observed an influence of the Russian language in the production of palatalized consonants in many of the Russian/English-speaking children. Further, Russian/English-speaking children were similar to their English-only peers in phonetic complexity and syllable-level error rates but demonstrated more consonant errors. The frequency of errors affecting syllable complexity did not show a substantial difference between the two groups. It is important to note that both groups of children demonstrated higher accuracy and lower error rates in older than younger children, revealing possible progress to a full English phonological system in both monolingual and bilingual children (Gildersleeve-Neumann & Wright, 2010).

These findings may be generalized with support from Bunta et. al. (2009) reporting that three-year-old bilingual Spanish-English speakers demonstrated lower consonant accuracy in English than did their monolingual English-speaking peers. Further, bilingual children use many of the same English phonological patterns as their monolingual peers, but they also use patterns that are different than those of monolingual children (Goldstein & Washington, 2001). For example, the most common patterns in Spanish/English-speaking children are stopping, final consonant deletion, and cluster reduction, similarly to monolingual children. However, bilingual children produce these patterns less often than monolingual children (Goldstein & Washington, 2001).

Conclusion

Overall, findings associated with the differences in phonological development in bilingual speakers and monolingual speakers indicate that kindergarten-age Russian/English-speaking children may not achieve the same level of accuracy of English as English-speaking children of the same age. However, accuracy improves with age in both Russian/English-speaking and English-speaking children, suggesting that Russian/English-speaking children are progressing toward an adult phonological structure at a comparable rate (Gildersleeve-Neumann & Wright, 2010). It is possible that early intervention would prevent a minor developmental delay as a toddler from manifesting into a phonological disorder as a school-age child.

Syntax of Language

Differences between Russian and English Syntax

The syntactical aspects of the Russian language are different than those of the English language. Some heritage speakers use incorrect case inflection with nouns when speaking Russian (Bar-Shalom & Zaretsky, 2008). Additionally, heritage speakers may reanalyze the

grammatical gender system by removing the marking distinction between masculine, feminine, and neutral; they may also use plurality of nouns incorrectly (Akhutina, Kurgansky, Polinsky, & Bates, 1999). For instance (Bar-Shalom & Zaretsky, 2008):

Incorrect form: *U nih est' dva dom* (Singular, Nominative)

They have two house.

Correct form: *U nih est' dva dom**a*** (Plural, Accusative)

They have two houses.

An additional variation is that English has distinct lexical entries for gender, whereas Russian marks gender by inflection. For example: he (English) → *on* (Russian); she (English) → *on**a*** (Russian); it (English) → *on**o*** (Russian) (Zaretsky & Bar-Shalom, 2010). Further, subject-verb agreement tends to be missing from heritage speakers' speech, which results in a dialect called 'American Russian', or a limited variety of Russian (Zaretsky & Bar-Shalom, 2010).

Existing Research Findings

In a study about language competence and first language maintenance in bilingual children, Taft and Bodi (1980) explored both Russian and English competence in bilingual Russian/English-speaking children by conducting interviews and administering language tests. The researchers concluded that the children made numerous grammar errors when speaking Russian. However, the authors contended that this could have been attributed to the complexities of Russian syntax as much as interference of English (Taft & Bodi, 1980). In a study about the relationship between Russian attrition (i.e., the gradual reduction of one's Russian-speaking abilities as a result of English acquisition) and reading ability in Russian-English bilingual children, Zaretsky and Bar-Shalom (2010) investigated language maintenance and loss and prevention of Russian attrition during increase of English proficiency by using a questionnaire, a

reading passage, a Grammaticality Judgment (GJ) task (i.e., a measure of understanding Russian sentence structure), and a story narrative. The researchers stated that Russian has a complex system of declension (i.e, the relationship between prepositions and noun case markers) and conjugation (i.e, marking the agreement between the noun and the verb). Apparently, heritage speakers are inclined to lose their capability to distinguish between gender and case inflections. As the researchers hypothesized, there was an interaction between the amount of case errors in narratives and agreement errors in the GJ task produced by the study's participants (Zaretsky & Bar-Shalom, 2010). A possible contributor to this finding is the influence of English on the use of proper inflections for gender required in Russian (Bar-Shalom & Zaretsky, 2008).

Conclusion

The existing literature regarding syntactical development of bilingual Russian/English-speaking children focuses on the maintenance of Russian and how it is affected by the acquisition of English. Information about English syntactical development by bilingual children is limited and must be studied in the future in order to understand how Russian can influence the English grammar of Russian/English-speaking children.

Semantics of Language

Differences between Monolingual and Bilingual Vocabulary Acquisition

The semantic development of bilingual children is different than that of monolingual children (Kan, 2010). The vocabulary skills of monolingual children are connected to literacy and language growth, and a reduction of vocabulary is notable in assessment of monolingual children (Justice, Meier, & Walpole, 2005). The process of learning a word for a monolingual child is a system of learning the word form and relating the form to a concept over a period of time

(Bloom, 2000). For a bilingual child, however, the process of learning a new word consists of mapping two forms of the word (i.e., in two different languages) onto a referent (i.e., a related familiar word or object) (Kan & Kohnert, 2008).

Existing Research Findings

Bilingualism may affect both acquisition of the second language and maintenance of the first language. There is evidence that bilinguals whose second language has become their dominant language translate basic words from the dominant language to the non-dominant language and vice versa with the same speed (Kalyuga, 1999). However, abstract words do not follow the same pattern. Words with abstract meanings are more difficult for bilingual children (Kalyuga, 1999). Words with simple meanings, phonological shape, and morphemic structure are the most common in the vocabulary of bilingual children (Kalyuga, 1999). In a study about lexical errors made by Russian-English bilingual children, Kalyuga (1999) examined the types of lexical errors made by children who have switched their dominant language from Russian to English by distributing surveys. Results revealed that, overall, bilingual children's Russian vocabulary was smaller than that of monolingual peers, and errors in speech persevered longer.

Lexical errors of Russian in bilingual children can be caused by underdeveloped skills in Russian and by the influence of English (Kalyuga, 1999). Those errors caused by underdeveloped skills in Russian are similar to the errors made by monolingual speakers, and errors in bilinguals' speech may be sustained longer because their use of Russian is restricted. For instance, bilingual children may not know some words or may make errors in words that are already familiar to their monolingual peers. The errors made by bilingual speakers that are caused by the influence of English include confusing meanings of distinct words that sound

similar in different languages, extending the meanings of words from one language to the other, translating idioms literally, and using words from the dominant language when speaking the other language. For example, the word 'room' can be translated to Russian as *komnata* (part of a house) or *mesto* (available space). Bilingual children may use the word *komnata* instead of *mesto* to say, "You have not left 'a room' [*komnata*] for me on the sofa" when the correct form is "You have not left room [*mesto*] for me on the sofa" (Kalygua, 1999).

In regards to first language maintenance, there is evidence that low frequency words usually disappear more quickly from a child's first language inventory (Isurin, 2000). Further, cognates (i.e., words that have the same linguistic derivation) have been found to be the least affected category of words. In a case study about the decline of Russian as the first language during immersion in English, Isurin (2000) used picture naming tasks to assess the child's language abilities and preferences. Results demonstrated that acquisition of English can cause forgetting of Russian. The rate of Russian decline was slower than the rate of English growth (Isurin, 2000).

Conclusion

Data about semantic comparison between Russian/English-speaking children and English-speaking children is overshadowed by information about the differences between Russian/English-speaking children and Russian-speaking children. The vocabulary development of bilingual Russian/English children versus monolingual English-only children must be studied further in order to understand the potential for English vocabulary attainment by Russian speakers.

Pragmatics of Language

Pragmatics, or the social use of language, is another aspect of language in the comparison of Russian/English and English-only speakers in the United States. The current literature describes pragmatic development in general bilingual speakers to a limited extent and does not focus on pragmatic development in Russian/English speakers. Kasper and Schmidt (1996) pointed out that this lack of study about pragmatic development is not apparent in research of first language learning, where there is extensive literature on acquisition of pragmatic competence.

Existing Research Findings

Some pragmatic universals, or pragmatic elements that apply to all languages and cultures, have been found to exist across languages. For example, adult native speakers of every language are capable of understanding indirectly conveyed pragmatic intent, recognizing indirect linguistic action, and varying linguistic action patterns based on contextual constraints (Blum-Kulka, 1991). Further, there are no reports of languages that do not use the basic set of speech acts, including representatives (definitions), directives (requests), commissives (offers), expressives (apologies and accusations), and declarations (proclamations) (Searle, 1976). In addition, requests, suggestions, invitations, refusals, apologies, complaints, compliments, and thanks have been found in all studied groups (Kasper & Schmidt, 1996). Non-universal pragmatics, or pragmatic elements specific to a certain language or culture, exist as well. In particular, declarations are deemed non-universal because certain speech acts are connected to specific culture settings, such as games, religion, and legal systems. An important point is that while language learners may be hesitant to transfer universal strategies, they also encounter the problem of assuming universality when that is not the case (Kasper & Schmidt, 1996).

Studies about the development of pragmatics in bilingual speakers have revealed that some transfer effects do exist between languages. Both positive transfer (i.e., using a Russian pragmatic element that also applies to English when speaking English) and negative transfer (i.e., using a Russian pragmatic element that is exclusive to Russian when speaking English) have been found in individuals' pragmatic knowledge. However, findings on the circumstances under which speakers are likely to transfer or not transfer are limited (Kasper & Schmidt, 1996).

Adjustment to English pragmatics develops as language learners' English proficiency increases (Trosborg, 1987). In a study about a Japanese male learning English, Schmidt (1983) found that the individual used a limited number of English pragmatic elements in his speech. For example, he used directives correctly, saying "Shall we go" and "Can I have *x*". However, he used the –ing ending incorrectly when making requests, saying "Sitting" rather than "Let's sit". He also transferred some Japanese norms into certain speech acts. However, at the end of the three-year study, the subject used –ing correctly and elaborated directives (Schmidt, 1983). Additional evidence demonstrates that the social context in which English is acquired influences the development of pragmatic knowledge. In a study about pragmatic development of children learning both a native language and a second language, Ervin-Tripp, Strage, Lampert, and Bell (1987) found that children depend more on contextual cues than on linguistic form in understanding requests in both languages.

Conclusion

Research about bilingual pragmatic development is extremely limited. This is a cause for concern because methods of language instruction and assessment should be well-versed in theory and research (Kasper & Schmidt, 1996). One aspect that calls for future exploration is

development of norms. Many studies assume that the norms of monolingual speakers are adequate for use with bilingual speakers. This can lead to incorrectly labeling differences in bilingual children's pragmatic use as deficits in pragmatic knowledge (Kasper & Schmidt, 1996). Therefore, additional research is necessary, and longitudinal studies have the most potential for discovering patterns in development of pragmatic competence. Such studies have the ability to establish stable developmental patterns and variation due to social contexts of second language learning and use and to individual differences (Kasper & Schmidt, 1996). Finally, it is important to note that in some cases, bilinguals may undertake the pragmatics of their second language completely. This is common among young bilinguals, such as children of immigrants, and may lead to intergenerational conflict between the child and his or her family members (Kasper & Schmidt, 1996). For example, a bilingual Russian/English speaker may continue to use English pragmatics even when speaking Russian at home, causing the child's parents to be confused or offended by the combination of Russian speech and English pragmatics.

Clinical Implications and Direction for Future Research

The findings presented in this literature review have important clinical implications, particularly for SLPs working with children. This evidence contributes to understanding of English speech acquisition of bilingual children, which suggests that such children's error patterns may reflect the phonological patterns of their first language. It is important for professionals to understand difference versus disorder in bilingual children. Children who are exposed to both Russian and English and produce many errors reflecting Russian phonology or more developmental errors than their monolingual peers may have a communication disorder (Gildersleeve-Neumann & Wright, 2010). SLPs should be aware of these characteristics and evaluate such children. It is important to avoid making assumptions and misdiagnoses. Further,

bilingual children who are suspected of having a communication disorder must be assessed with appropriate tools. In general, tests that require linguistic interaction between the clinician and the client and are based on conventional English make it difficult to obtain information about the speech of non-English speakers (Aleksandrovksy, McCullough, & Wilson, 1998). Assessments tailored specifically for bilingual Russian/English-speaking children should be developed.

These findings should be expanded with original research in the future. Bilingual speakers have been studied at length and some research exists concerning Russian/English-speaking children, but data on the language development of bilingual Russian/English-speaking children are lacking. There is a considerable paucity of information about this population; however, that should not be the case in the growing multicultural society of the US.

Finally, bilingual children living in the US who have been adopted from the former Soviet Union should also be investigated. In this case, SLPs must be aware of the risk factors associated with this population in order to provide early intervention as necessary (Beverly, McGuinness, & Blanton, 2008). Future investigations could compare the phonological, morphological, syntactical, semantic, and/or pragmatic aspects of Russian/English-speaking children's English development to that of English-speaking children's English development. Studies may focus on specific bilingual child populations in the US, such as children adopted from Russia by American families, children born to Russian immigrants, or children born to first-generation American parents.

The US is home to a variety of languages and cultures, and non-native speakers of English present unique challenges and contributions to American society. In particular, bilingual children may require special attention during their linguistic development. In promoting a

diverse society, both clinicians and researchers should commit to continuing education in

multiculturalism and to best practices in assessing and treating bilingual clients.

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