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THE BILINGUAL ADVANTAGE: PERFORMING THE NON-WORD REPETITION TEST

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Abstract. The study investigated the accuracy of non-word production by bilingual and monolingual children. The participants (125 children in total) belonged to two groups of bilingual children with different language repertoires and one group of monolingual Lithuanians. The analysis revealed that the overall performance of both bilingual groups was better than in the monolingual group. The bilingual children demonstrated more accurate and statistically significant results in repeating longer and structurally more complex non-words. The findings of this study suggest that the bilinguals being acquainted with two phonological systems had a greater experience with diverse phonology, which ensured a more precise performance of the task.

Keywords: bilingual and monolingual children, language acquisition, Lithuanian, English, Russian

Introduction

Research in the field often reports that bilingual children with migration experiences have some disadvantages. For example, they often do not reach the developmental milestones in their linguistic competence of L1 at the same pace as monolingual children or have difficulties acquiring L2, the dominant language of the society (Paradis 2010). It is also observed that, compared to monolingual children, bilinguals often perform linguistic tasks more poorly (Gibson, Jarmulowicz, Oller 2019).

Recently bi- or multilingual literacy acquisition at the primary school has become a focus of extensive research, and oral language

proficiency at school entry has been reported to be a crucial indicator of literacy development in bilinguals well before they start to read (Bialystok 2002; Silven, Lunden 2011). Although research on bilingual language acquisition has raised many questions, the primary aim of this study is to contribute to the controversial debate on bilingual advancement. For that purpose, we will present the results of a specific linguistic task (non-word repetition test, NWR) performed by two groups of sequential bilingual and one group of monolingual children.

The relevant studies emphasise differences between bilingual children with regard to their profile. Montrul (2013) distinguishes three profiles: (1) simultaneous bilinguals (i.e. those exposed to the heritage and the majority language before the age of 5); (2) sequential bilinguals or child L2 learners (i.e. the ones exposed to the heritage language at home until the age of 4–5 and to the majority language once they start preschool); and (3) late child L2 learners (i.e. children monolingual in the heritage language who received some elementary schooling in their home country and immigrated around 7–11 years of age) (Montrul 2013: 284). However, the classification is not always clear-cut. The age of acquisition and the type and amount of L1 at home and L2 outside are relevant variables for understanding the linguistic abilities of bilinguals. However, it is not always obvious how to measure the degree of languages a child is exposed to. The languages used at home and outside influence the type of bilingualism and literacy skills and, ultimately, academic achievements. The data obtained from different studies (Pearson 2007; Leseman, van Tuijl 2006) propose that the balanced use of languages and a child's regular involvement in joint reading or other interactional activities may have a long-term impact on academic attainments and personal satisfaction.

In contrast, due to restricted home settings in early childhood, L1 speakers may have reduced access to L2 and experience difficulties in linguistic abilities compared to titular language speakers (Kondo-Brown 2004; Montrul 2011; O'Grady 2011). Moreover, in

language development paths, diverse and deviant or nonstandard performance can be observed not only in L2 but also in L1; however, this result should not be considered as a deficit in language acquisition but as a unique stage in language development (cf. Gathercole 2013; Paradis *et al*. 2011). Thus, it is essential to compare bilinguals and monolinguals not only to confirm deviations from the monolingual "norm" repeatedly but also to determine if these groups demonstrate unique or specific characteristics when performing certain tasks.

The non-word repetition test is considered an important measure in monitoring the child's language development. At a young age, the child's ability to repeat a new polysyllabic word that she/he hears for the first time shows her/his ability to learn new words later and extend the lexicon (Gathercole 2006). Our study attempts to investigate linguistic performance in two groups of sequential preschool bilinguals (i.e. Russian-Lithuanian and Lithuanian-English) and one monolingual Lithuanian group to identify specific patterns characteristic of these groups in the completion of pronunciation tasks.

1. Non-word repetition test: theoretical assumptions

The non-word repetition test is an experimental method when the respondent is asked to repeat non-words[1]. In order to be able to repeat the word which is heard for the first time and does not have any meaning, linguistic-cognitive abilities (phonological processing, short-term memory, articulation abilities, etc.) are necessary (Rispens, Parigger 2010). Each word that the child has heard for the first time some time ago sounded unusual and strange, similar to the words in this test (Chiat, Roy 2007). The results of longitudinal

[1] A non-word is a phonological sequence of sounds which corresponds to phonotactic rules of a specific language and do not have any meaning and function in a sentence.

research have demonstrated that the children who performed better in the test after a year had a broader lexicon than those who performed worse (Gathercole 1995; Baddeley *et al*. 1998).

The research conducted in different languages and on a different population (monolingual vs bilinguals) does not demonstrate a straightforward result. Some studies show rather similar bilinguals' and monolinguals' non-word repetition performance. For instance, one study compared English non-word repetition accuracy of 7-year-old monolingual English and bilingual Korean–English, Chinese–English, and Spanish–English children. The results demonstrated similarity between the monolinguals and bilinguals – there was no statistically significant difference in performance (Lee, Gorman 2012). Another study comparing children aged from 3 to 5 years old (30 Korean-English sequential bilinguals and 30 Korean monolinguals) also did not find any statistical difference between the two groups (Lee, Kim, Yim 2013). Russian-Hebrew bilingual children (4;5–6;6), Hebrew monolingual children (4;6–6;6), and Russian monolingual children (4;0–6;0) were tested with the same task but did not show any differences either (Armon-Lotem, Chiat 2012). A study of migrant children in preschool- and school-age (mean age 9;4) with L2 German (different L1 languages: Russian, Turkish, and Urdu) confirmed the same performance of monolingual and bilingual children (Grimm, Hübner 2016). French-speaking monolingual children in grades 3 and 6 and bilingual children have exhibited the same tendency in accuracy results in the non-word repetition test (Thordardottir, Reid 2022). A study on school-age (around 11 years old) bilinguals who live in Iceland and attend Icelandic schools but who speak a language other than Icelandic at home (different L1 languages: Polish, Lithuanian, Ukrainian, etc.) demonstrated very high scores on an Icelandic non-word repetition test (Thordardottir, Juliusdottir 2012).

Other studies report bilingual advantage in repeating non-words in first language (L1). Greek children learning English as a second language were more accurate repeating non-words in their

native language (Greek) than in the second one (English) (Masoura, Gathercole 1999). Additionally, Summers *et al.* (2010) found that Spanish-English bilingual children aged 4;6 and 6;5 produced the Spanish-like non-words more accurately than the English-like non-words. The study (Gibson *et al.* 2014) of 52 English-Spanish five-year-old children (26 Spanish-dominant and 26 English-dominant) conducted for English and Spanish showed that the Spanish-dominant group performed better than the English-dominant group for both Spanish and English non-words. The authors claim that not only language experience but also phonological structure has effects.

There are also studies showing worse performance on non-word repetition tests by bilinguals than monolinguals. Researchers have found that bilingual Spanish-English children aged 7;10–13;11 (Kohnert *et al.* 2006) and 6;0–11;6 (Windsor *et al.* 2010) performed significantly below monolinguals. Messer with colleagues (2010) found that Turkish-Dutch 4-year-olds had lower scores than their Dutch monolingual peers in a Dutch non-word repetition test, but higher scores on a Turkish test, reflecting differences in language experience within the two groups. Another study compared the results of 44 bilingual children with various European languages as their L1 and the performance of the Luxembourgish non-word repetition test by monolingual children. The data showed that the monolinguals performed significantly better than the bilingual group (Pascale 2011). As we observe, the differences in performance of diverse populations are mainly related to the language experience and phonological sensitivity (familiarity); however, we believe, there are many more factors influencing the performance of non-word repetition.

2. The structure of non-word repetition test

Comparative research using non-word repetition tests designed for different languages allows distinguishing three main factors which influence the accuracy of non-word repetition:

1. The complexity of non-words (CV vs CCV). Non-words with consonant clusters are repeated less accurately than non-words without consonant clusters (Kavitskaya *et al*. 2011). Word-medial and word-final clusters are repeated less accurately than word-initial consonant clusters (Marshall, van der Lely 2009; Krivickaitė 2014; 2017).
2. The non-word length (the number of syllables in the word). Non-word repetition accuracy declines with the increasing number of syllables; one- or two-syllable words are uttered more accurately than three- or four-syllable non-words (Chiat, Roy 2007). It is related to the ability to keep phonological information in short-term memory. The length effect has been identified in a variety of languages, such as English (Dollaghan, Campbell 1998; McDonald, Oetting 2019), Italian (D'Odorico *et al*. 2007; Piazzalunga *et al*. 2019; Farabolini *et al*. 2021), Spanish (Girbau, Schwartz 2007; Windsor *et al*. 2010), Swedish (Radeborg *et al*. 2006), Dutch (Messer *et al*. 2015), Cantonese (Stokes *et al*. 2006), Gulf Arabic (Shaalan 2020), Czech (Sileo, Tyčová 2019), Lithuanian (Krivickaitė 2014, 2017).
3. The age of participants: the older the group, the more accurately both shorter (one–two syllable) and longer (three–four syllable) non-words are repeated (Santos *et al*. 2006; Park, Scarz 2012). Older children have a larger and more developed lexicon; they are also more exposed to and experienced with different sound clusters and thus can produce various consonant clusters more accurately (Munson *et al*. 2005).

2.1. THE STRUCTURE OF THE LITHUANIAN NON-WORD REPETITION TEST[2]

The Lithuanian non-word repetition test was designed following the structural characteristics of Lithuanian words (word length and syllable structure) (see Kazlauskienė 2007; Kazlauskienė, Raškinis 2008a, 2008b; Kazlauskienė 2010; Girdenis, Karosienė 2010). The test consists of 24 non-words with a different structure: eight non-words have two syllables (4–6 phonemes), eight non-words have three syllables (6–7 phonemes), and eigth non-words have four syllables (7–8 phonemes). There are two non-words without consonant clusters and six non-words with consonant clusters in each group (see Table 1). In terms of word length and syllable structure, each non-word is associated with a Lithuanian true word equivalent.

Table 1. *Non-word items and their syllable structure*[3]

2-syllable non-words	3-syllable non-words	4-syllable non-words
k e m u CV.CV	g e l ɔ ʃ ɑ CV.CV.CV	s u l e r ɪ t e: CV.CV.CV.CV
d ɔ j æ CV.CV	ʃ ɪ r u t ɑ CV.CV.CV	ž ɑ d e v ɪ n ɑ CV.CV.CV.C
s k ɪ m o CCVCV	ʃ k u l ɪ n e: CCV.CV.CV	s n ɑ l ɪ d ɪ n ɑ CC.CV.CV.CV
ʃ v e l ɑ CCV.CV	p l e m u t ɑ CCV.CV.CV	s p ɪ r ɑ t u ʃ ɑ CCV.CV.CV.CV
g ɑ: p r e: CV.CCV	m ɑ: s p u l e: CV.CCV.CV	n ɪ s p ɑ r ɪ m ɑ CV.CCV.CV.CV
g ɪ t v ɑ CV.CCV	l ɑ s m u v ɪ CV.CCV.CV	m ɑ g v u n ɔ l e: CV.CCV.CV.CV
s m ɪ n t ɔ CCVC.CV	s p ɑ: d ə k ɪ CCV.CV.CV	s t ɑ l ɪ g ɔ s ɑ CCV.CV.CV.CV
k l e s t ɑ CCV.CCV	p ɑ: s v ʌ p ɪ CV.CCV.CV	g ɔ s ɑ k l u: n ɪ CV.CV.CCV.CV

[2] The Lithuanian non-word repetition test (Dabašinskienė, Krivickaitė 2013) was developed while participating in the COST project IS0804 Language Impairment in a Multilingual Society: Linguistics Patterns and the Road to Assessment (2009–2013).

[3] Syllables are separated by dots; C – consonant, V – vowel.

The Lithuanian non-word repetition test was presented in a short (lasting only three–four minutes), easy, friendly and attractive game format using MS PowerPoint[4]. The child was introduced to the main character of the game, a monkey, who wants to get some bananas and has to complete the tasks. The child was asked to help the monkey and do the tasks. In each step, the child heard a recorded non-word, which she/he had to repeat. The performances were recorded. Additionally, the protocol was used to mark and comment on the child's utterances.

2.2. THE SCORING METHODOLOGY

Considering debates and arguments on the diversity of scoring methodologies of the non-word repetition tests, we decided to focus on three main elements to register inaccuracies in a child's productions.

1. *The whole item or general accuracy*. Each item was scored as either correct or incorrect. Any child's production deviant from the original (in regard to length and structure), such as the omission, addition or replacement of a sound or a syllable, was scored as incorrect. The answers were considered to be wrong if an additional sound was added, for example, *g r̲ a: p r* e: (instead of *g a: p r e:*), or if a sound was substituted, for example, *g e g ɔ ʃ a* (instead of *g e l ɔ ʃ a*), etc. The answer was regarded to be correct only if the word was repeated absolutely precisely.

2. *Word length*. Each item of two-, three- and four-syllable stimuli was scored as correct if a child produced the same number of syllables as in the target word. The answers were treated as wrong if (1) the word became one syllable shorter because of an omitted sound, for example, *ʃ k u l n e:* (instead of *ʃ k u l ɪ n e:*); (2) if the whole syllable was omitted, e.g. *s p a r ɪ ma* (instead of *n ɪ s p a r ɪ ma*);

[4] The visual design of non-word repetition test produced by Kunnari, Tolonen, and Chiat (2011).

or (3) an additional syllable was added, as in *d ɔ l u j æ* (instead of *d ɔ: j æ*), etc.

3. *Syllable structure (consonant clusters*). Each item was scored correct if the cluster was repeated as in the original word. For example, *t ɑ: p r e*: (instead of *g a: p r e*:) was counted as a correct answer because of the production of the consonant cluster; however, *k ɪ m o* (instead of *s k ɪ m o*) was counted as an incorrect because one element of the cluster was omitted.

To carry out the quantitative analysis, the data were coded manually and analysed using the SPSS 22 (*Statistical Package for the Social Sciences*) programme. In order to check statistically significant differences, an analysis of variance and the post hoc criterion were applied. The level of statistical significance was set at 5% (0.05).

2.3. PARTICIPANTS

Three groups of children (mean age 6 year) participated in the current study. Group 1 (n = 50) was comprised of monolingual Lithuanian children from the city of Kaunas. The members of this group attended a state kindergarten daily. The children from Group 2 (n = 50) were sequential bilinguals (L1 – Russian, L2 – Lithuanian) living in Kaunas and Vilnius who attended a state kindergarten for minority children with Russian as the main language of instruction and had 3–4 hours of weekly Lithuanian classes. As reported by the parents, all bilingual children used Russian as their first language, and this language was dominant at home. Group 3 (n = 25) were sequential bilinguals (L1 – Lithuanian, L2 – English) born in the UK or taken to London at around one year of age. They went to a state kindergarten with English as the main language and attended a Lithuanian school on Saturdays (3–6 hours per week).

All the children were typically developing (TD) and were selected for the study with their teachers' help; none of the children had records of language delay or impairment.

Table 2. *Participants*

Group	Number	Gender		Mean age
		Male	Female	
MO (LT)	50	26	24	6;1
BI (RU-LT)	50	27	23	6;3
BI (LT-EN)	25	9	16	6;0

3. Results

The test results demonstrated that both bilingual groups repeated non-words better than the monolingual participants: the bilinguals' accuracy of repeating non-words was 75%–76%. In comparison, the accuracy of the monolinguals was 69% (see Figure 1). The statistical analysis shows that the bilingual children repeated non-words significantly better than the monolinguals (p=0.004).

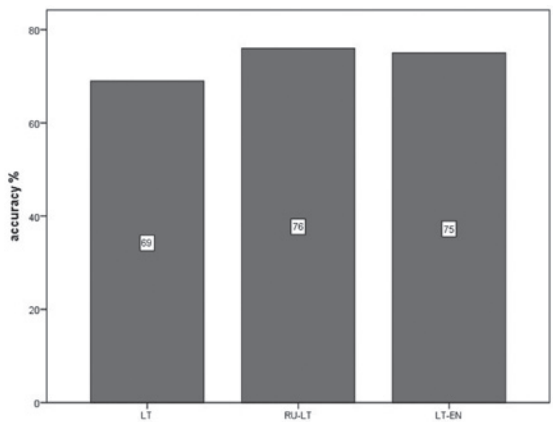

Figure 1. *The general results of the non-word repetition test: MO (LT) vs BI (RU-LT) vs BI (LT-EN)*

3.1. THE WORD STRUCTURE: GENERAL ACCURACY, WORD LENGTH, AND SYLLABLE STRUCTURE (CLUSTERS)

3.1.1. GENERAL ACCURACY

The general analysis of accuracy looks at a child's performance from two angles: first, it investigates how precisely a child can retain the number of syllables in a word and second, how she/he manages to produce more complicated structures, such as consonant clusters. Thus, we expected a child to be most precise when uttering the original word.

As regards the word length, in general, the bilingual children repeated two-, three, and four-syllable non-words better than the monolingual (see Figure 2). The data analysis indicates that all the groups repeated two-syllable non-words with 89%–93% accuracy. Longer non-words were more difficult to repeat correctly than the shorter ones for all the groups. Statistically, three- and four-syllable non-words were repeated notably worse than two-syllable non-words (p=0.000). The most significant difference in the results is seen in the production of two-syllable and three-/four-syllable non-words in all participant groups. The RU-LT group repeated three- and four-syllable non-words with similar accuracy (70%–73%), while the monolingual and LT-EN groups repeated four-syllable non-words much worse than three-syllable non-words. The monolinguals produced them with 56% and 75% accuracy and LT-EN bilinguals with an accuracy of 65% and 72%, respectively.

The repetition of three-syllable non-words displays similar results between the monolingual and bilingual groups: the monolinguals repeated non-words with 75% accuracy, while the bilinguals repeated them with 73%–72% accuracy (see Figure 2). So, it can be noted that there is no statistically significant difference between the groups.

The analysis demonstrates that the bilinguals repeated four-syllable non-words more precisely than the monolinguals: the RU-LT group's accuracy was 70%, the LT-EN group's score was 65%, and

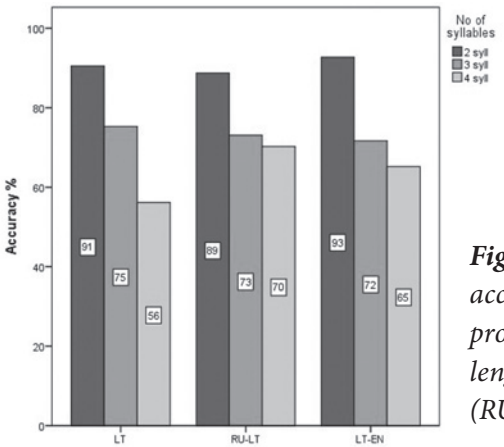

Figure 2. *The general accuracy of the non-word production (structure and length): MO (LT) vs BI (RU-LT) vs BI (LT-EN)*

the monolingual group repeated four-syllable non-words with 56% accuracy (see Figure 2). A statistically significant difference between the monolinguals and the bilingual RU-LT group (p=0.000) was found, while the difference in the results between the monolinguals and the LT-EN bilingual group was not statistically significant.

In order to pronounce words with a more complicated structure, as a rule, children look for ways of facilitating their pronunciation; for instance, they omit consonants with more complicated pronunciation patterns or substitute them with other consonants that are easier to pronounce. Inaccurate pronunciation of sounds or their substitution by other sounds is a natural development of children's language, demonstrating the cognitive processes when learning new words (Dodd *et al*. 2003: 623; Santos *et al*. 2006: 372). However, we registered such changes in pronunciation as incorrect.

3.1.2. THE LENGTH OF NON-WORDS

This section looks only at one parameter – the retainment of the word structure, namely, the child's ability to produce a word in all its length, with all the required syllables. The accuracy in pronunciation of consonant clusters was not considered and measured here

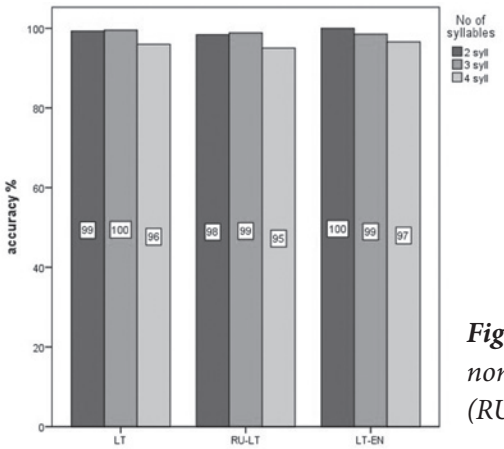

Figure 3. *The length of non-words: MO (LT) vs BI (RU-LT) vs BI (LT-EN)*

(omission, changes, additions). None of the participant groups found it difficult to retain the number of syllables in a word: the length of two- and three-syllable words was retained with the accuracy of 99%–100%, and the length of four-syllable words was retained with the accuracy of 95%– 97% (see Figure 3).

3.1.3. COMPLEXITY (CONSONANT CLUSTERS): INITIAL VS MEDIAL POSITION

The sample included very few words without a consonant cluster: 2 two-syllable words and 2 three- and four-syllable words. Thus, we will only analyse words with a consonant cluster to observe the children's ability to articulate more complex structures.

Clusters usually appear in a word in diverse positions, and our analysis focuses on initial and medial positions. It was observed that clusters in the initial position were repeated significantly more accurately than those in the medial position (p=0.000). The results of consonant clusters in the initial position ranged in the interval of 85%–91%, and consonant clusters in the medial position were produced with an accuracy of 72%–85% (see Figure 4).

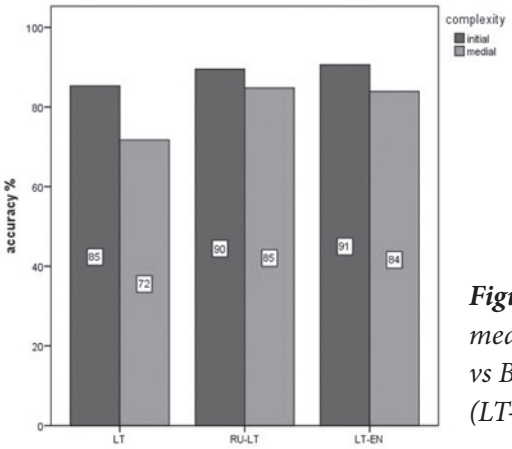

Figure 4. *Initial and medial clusters: MO (LT) vs BI (RU-LT) vs BI (LT-EN)*

Both bilingual groups repeated *initial* and *medial* consonant clusters better than the monolingual group. Thus *initial* clusters were repeated with the accuracy of 85% by the monolinguals and with the accuracy of 90%–91% by the bilingual groups. As for the *medial* clusters, they were articulated with the accuracy of 72% by the monolinguals and with the accuracy of 84%–85% by the bilinguals (see Figure 4). The statistical analysis revealed that clusters in the *medial* position were repeated significantly better by both bilingual groups (p=0.000) compared to the monolingual group. However, a statistically significant difference was not registered in the production of initial clusters by all groups.

3.1.4. CLUSTER POSITION AND WORD LENGTH

The general tendency identified in the analysis is that the longer the word, the more difficult it was for all the participants to repeat consonant clusters in both initial and medial positions accurately.

The monolinguals repeated initial clusters in two- and three-syllable non-words similarly (97% accuracy). As regards the bilinguals, their accuracy while uttering the *initial* cluster in two-syllable non-words was 97%–98%, and the respective percentage for three-syllable

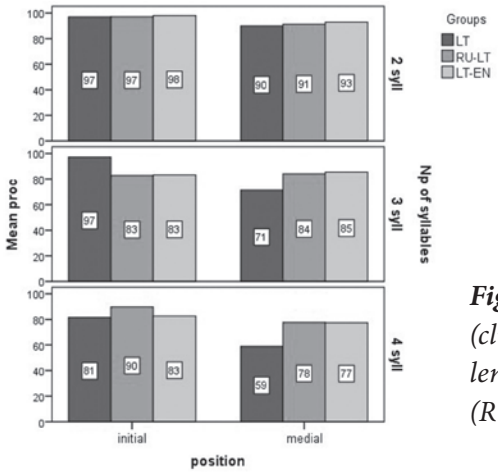

Figure 5. *Complexity (cluster position) and word length: MO (LT) vs BI (RU-LT) vs BI (LT-EN)*

non-words was 83%. The statistical analysis confirmed that the monolingual group repeated *initial* clusters in three-syllable non-words significantly better (p=0.019) than the bilinguals. The RU-LT group repeated *initial* clusters in four-syllable non-words more accurately than in three-syllable non-words (90% and 83%, respectively). The LT-EN group's performance of *initial* clusters in three- and four-syllable non-words was similar (the accuracy of 83%).

Medial clusters in two-syllable non-words were repeated with a similar accuracy by the monolinguals and bilinguals, showing 90%–93% accuracy. The monolingual group repeated *medial* clusters worse than the bilinguals in three- and four-syllable non-words. Thus clusters in three-syllable non-words were produced with the accuracy of 71% by the monolinguals and with the accuracy of 84%–85% by the bilingual participants. As for clusters in four-syllable non-words, their production accuracy was only 59% for the monolinguals and 77%–78% for the bilinguals. The statistical analysis revealed that the monolinguals repeated *medial* clusters significantly worse than the bilinguals in three-syllable (p=0.002) and four-syllable non-words (p=0.000).

4. Conclusion

To summarise, the results of the Lithuanian non-word repetition test revealed the most complicated aspects of the acquisition of phonotactics by monolingual and bilingual children:

- The performance of all groups was affected by item length and structural complexity.
- It was difficult to accurately repeat non-words longer than two syllables (i.e. three- or four-syllable non-words). In order to perceive and repeat more complex words, more linguistic efforts and additional memory were necessary.
- The cluster position in a word is an important parameter. Clusters in the medial position were repeated worse than those in the initial position, especially in longer non-words (mostly consisting of four syllables).
- The monolingual children scored below the bilingual children in most of the tasks.
- The bilinguals demonstrated better performance of longer and structurally more complex non-words than monolinguals.

As our results provide a bilingual advantage tendency, we would like to briefly discuss some of the particular findings.

The results in this study are mainly interpreted by statistical analysis;; however, a closer qualitative analysis is necessary in the future to explain particular cases. As it was presented, the findings revealed that both groups of bilingual children performed better than monolingual children in many parameters, especially the longer words (except for the case of better performance of the MO group in three-syllable words with the initial cluster position). The parameters that were identified as important were the length of the word and consonant clusters. Both bilingual groups repeated four-syllable words with clusters better than the monolingual group, indicating that the bilinguals processed the most difficult structures easier. The results of the word complexity have demonstrated that both bilingual groups repeated consonant clusters more accurately than the

monolinguals, and the results for both parameters were statistically significant.

There were a few cases, mainly in producing two-syllable words, where the results of the monolingual group were similar to the bilingual ones. We assumed that bilingual Lithuanian-English children with Lithuanian L1 would show similar results to monolingual Lithuanians but not higher. It appears that Lithuanian-English bilinguals were exposed to more or less balanced use of both languages (Dabašinskienė *et al*. 2014) as Lithuanian families have demonstrated rather positive attitudes to linguistic integration and heritage language maintenance. The children used Lithuanian at home and attended Lithuanian language classes organised by the Lithuanian community several times per week. Moreover, they have a good knowledge of English as they attend English schools. The Russian-Lithuanian group used Russian at home and attended Russian schools (see Dabašinskienė, Krivickaitė-Leišienė 2019) and had, therefore, little exposure to Lithuanian but performed equally or even better than Lithuanians. As it was already reported by many studies, performance on non-word repetition test is associated with both the structure of a language and a speaker's experience with that language and predicts a child's performance on non-word repetition test (Thordardottir, Juliusdottir 2012; Armon-Lotem, Chiat 2012; Thordardottir, Reid 2022 etc.). Despite the fact that Russian was strongly dominating in our RU-LT group due to much less experience in Lithuanian, the results support a bilingual advantage in terms of the children's experiences with both languages. Thus, we assume that bilinguals possess two phonological systems (despite the level of a language competence) and have more diverse experience with phonology, which ensures better performance of the task. This study demonstrates the bilingual advantage only in the very particular non-word repetition test. However, grammar, which is very language-specific, is more difficult to acquire; thus, more erroneous productions are registered in bilinguals' performance (see Dabašinskienė, Krivickaitė-Leišienė 2019).

Language acquisition is affected by differences in the socio-economic, cultural characteristics, the language attitudes of bilingual communities, and the language status of children's L1 and L2. Moreover, children's age, the length and intensity of exposure to their L2 play an important role (Chiat 2015). The study has some limitations, especially, the size of the sample, but also other sociolinguistic and linguistic parameters have to be taken into consideration when conducting future research.

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RESÜMEE

KAKSKEELSUSE EELIS: VÄLJAMÕELDUD SÕNADE KORDAMISE TEST

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Uurimus käsitles kaks- ja mitmekeelsete laste väljamõeldud sõnade produktsiooni. Osalejad (kokku 125 last) kuulusid kahte (erinevate keelerepertuaaridega) kakskeelsete laste gruppi ja ühte ükskeelsete leedulaste gruppi. Analüüsist tuli välja, et kakskeelsete gruppide sooritused olid ükskeelsest grupist paremad. Kakskeelsed lapsed näitasid täpsemaid ja statistiliselt olulisi tulemusi pikemate ja struktuurilt keerukamate väljamõeldud sõnade kordamisel. Uurimuse tulemused näitavad, et kakskeelsetel lastel on laialdasem kogemus erineva fonoloogiaga, kuna neil on kokkupuude kahe fonoloogilise süsteemiga, mis aitas neil ülesannet täpsemalt sooritada.

Võtmesõnad: kaks- ja mitmekeelsed lapsed, keeleomandamine, leedu, inglise, vene

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