THE TATAR-RUSSIAN BILINGUALISM IN EARLY CHILDHOOD

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Abstract. The paper presents findings from psycholinguistic research with normally developing preschool Tatar-Russian bilingual children between the age of 4;0 to 6;0 years old. Forty children in total- twenty children between the age of 4;0 –5;0, and twenty children between the age of 5;0-6;0 were tested. Children with language impairment and mental disabilities were excluded from the study. All children attend a polylingual kindergarten, where the children learn in organized way the following three languages: their mother tongue – the state language of the Tatarstan – the Tatar language, Russian – the official language of the Russian Federation to which Tatarstan belongs, and English. The children were tested with two types of language tests: Syntactic test (wh-complement tests) and mix Tatar-Russian vocabulary test (comprehension and production). They were also tested with a psychological non-verbal Knock Tap test. All children were tested individually in a separate room by a native Tatar speaking and Russian speaking researcher. In order to avoid the influence of the language of testing on the results half of the children were tested with part of the tests in Tatar language and the other part in Russian language. The next day they were changing the languages and the tests. The research question we try to answer is: Do the children develop balanced bilingualism in the kindergarten age having in mind the educational system they are involved in or they are dominant in one of the two languages. The results of the children are analyzed with the ANOVA and SPSS Statistics. They show that the older children are better in all tests. Regarding the language the younger children show poor results in Tatar and better results in Russian. The older children show equally good results in both languages. The paper discusses the classical theory of Skutnabb-Kangas (1981) and newest findings of Bialystok (2020) regarding the bilingualism and bilingual education from

early ages and which factors play important role in successful development of balanced bilingualism from early age.

Keywords: Tatar language, Russian, balanced bilingualism, early childhood.

Кючуков Хрісто, Ушакова Оксана, Газізова Фаріда. Татарсько-російський білінгвізм у ранньому дитинстві.

Анотація. У статті представлено результати психолінгвістичного дослідження дітей віком 4–6 років, які розмовляють російською і татарською мовами. Загалом було протестовано сорок дітей – двадцять дітей у віці від 4 до 5 років та двадцять дітей віком від 5 до 6 років. Дітей із порушеннями мови та психічними вадами було виключено з дослідження. Усі діти відвідують багатомовний дитячий садок, де вони організовано вивчають такі три мови: рідну татарську як державну мову Татарстану, російську – офіційну мову Російської Федерації, до якої належить Татарстан, та англійську. Дітей тестували з двома видами мовних тестів: синтаксичним тестом (тести на доповнення) та тестом на змішану татарсько-російську лексику (розуміння та породження). Крім того, їх були продіагностовано за допомогою психологічного невербального тесту Knock Tap. Усі діти пройшли індивідуальне тестування в окремій кімнаті дослідником – носієм татарської та російської мов. Щоб уникнути впливу мови тестування на результати, половину дітей тестували з частиною тестів з татарської мови, а іншу частину з російської мови. Наступного дня було змінено місцями мови й тести. Дослідницькими питаннями, на які автори намагалися відповісти, були: чи розвивається у дітей збалансований білінгвізм у дитячому віці на основі освіти, що вони здобувають, чи в дітей домінує одна з двох мов. Результати піддавалися аналізу за допомогою програм ANOVA та SPSS Statistics. Аналіз засвідчив, що старші діти кращі в усіх тестах. Щодо мовних аспектів, то молодші діти показують погані результати з татарської та кращі результати з російської. Діти старшого віку демонструють однаково добрі результати в обох мовах. У статті обговорюється класична теорія Skutnabb-Kangas (1981) та нові результати Bialystok (2020) щодо білінгвізму та двомовної освіти з раннього віку, а також те, які чинники відіграють важливу роль в успішному розвитку збалансованого білінгвізму з раннього віку.

Ключові слова: татарська мова, російська мова, збалансований білінгвізм, раннє дитинство.

1. Introduction

One of the problems of some bilingual speakers, among many others, is their decision which of the languages they speak is their first language, and which is second. Very often they cannot decide which is their mother tongue if they grow up in an environment with two or more languages (Skutnabb-Kangas, 1981). One of these languages is dominant and it is considered to be the first language, but not always is this their mother tongue (home language). Very rarely both languages spoken by the bilinguals are balanced. A balanced bilingualism shows the ability of the speaker to use both languages equally well and to have the ability to switch from their first language (L1) to second language (L2) and back again to L1.

De Houwer (2020) terms it "Harmonious Bilingual Development". In her view, if the "families with young children in a language contact setting do not experience any problems because of bilingual situation or have a positive subjective experience with bilingualism" (p. 63), they can be considered to be in subjective well-being. The author provides examples with different bilingual speakers where their bilingualism in family settings is well-received albeit by contrast not well-received in the wider society. This naturally influences the feelings towards the languages the speakers use. When the attitudes of society towards the languages the child speaks are positive, this

generates a feeling of well-being, and by contrast, when the attitudes towards the languages the child speaks are negative, such children do not feel well. Language use is always interconnected with the emotions.

In her study, Bialystok (2020) writes that since 2000, bilingual research "has demonstrated systematic change to cognitive and brain systems across the lifespan that can be traced to bilingual experience" (p. 9). The author also claims that bilinguals perform better on the tests than monolinguals because they operate with two language systems. The fluent bilinguals use both languages regularly, both languages are active and available when one of them is being used (Bialystok, 2009). According to de Houwer (2005), in order to reach that level, the Separate Development Hypothesis can help in that process. This hypothesis states that from an early age, the child acquires two morphosyntactic systems of two languages, and the development of morphosyntactic system from one language does not have any fundamental effect on the morphosyntactic development of the other language.

Serratrice (2019) differentiates bilingual first language acquisition (BFLA) and early second language acquisition (ESLA). In the case of BFLA, the child treats the two languages as two first languages. In the case of ESLA, the children acquire their first language and later are then exposed to a second language. Regardless of how the two languages are acquired, the author notes that "the bilingual language experience can and, indeed, should be viewed in its own right and not just as an atypical case of language development" (p. 16).

Another important factor for the development of the bilingualism from early childhood is input. De Houwer (2018) differentiates:

- Relative timing of input in two languages when the input starts in two languages;
- Cumulative and absolute frequency of language input;
- "Reduced input";
- Relative input frequency;
- Input frequency of linguistic categories.

However, together with the language input, an important role is also played by the language status in the society. Serratrice (2020) writes about the status of the languages bilingual children grow up with. One language can have official status and there will be an educational support for it, but the second language could be a minority language or language of migrants/refugees, and commonly there is no educational support for it.

Russian kindergartens are bilingual and multilingual (Kyuchukov, Ushakova, & Yashina, 2015). Tatarstan as part of Russian Federation follows the recommendations of the Russian Ministry of Education in respect to language education. In Tatarstan, Tatar and Russian are recognized as official languages of the country, but Russian has a dominant role. In most of the institutions and public spheres, Russian is used. Russian has a higher status. Tatar is a Turkic language and the grammatical structure of Tatar is similar to other Turkic languages (Berta, 1998; Johanson, 2006). Tovar-Garcia and Podmazin (2018) show that although Tatar is the official language, Russian is considered to be the language of greater socio-economic status and prosperity. The author reports that most families in big cities such as Kazan use Russian at home with

their children from an early age. Our observations also show that the families in villages and small towns will use more Tatar in their communication with the children or parents from a low socio-economic status. But families with a better financial status and in large towns and cities use Russian in the main as a tool of communication with their children.

In Tatarstan the children attend kindergarten from an early age. The activities in the kindergarten are mainly in Russian, however there are also activities in the Tatar language, where the children learn to speak Tatar. The teachers of the Tatar language lessons are native Tatar speakers with a university degree in Tatar philology. There are textbooks for children and methodology books for the teachers of Tatar language. The children are also studying English intensively. The time for attendance in the kindergarten is from 7.30 am until 6 p.m. The children attending the kindergarten are grouped in a multilingual environment, because they learn Russian, Tatar and English from a very early age.

The reason for conducting this study was our curiosity about the level of mastering the two languages which are the official languages of the country. English is considered to be their first foreign language. How good are the children in Russian and Tatar, and at what age do they turn out to be balanced bilinguals? These are the questions which we seek to answer in this paper.

2. Methodology of the Study

The research was done with two age groups normally developing Tatar-Russian bilinguals. The total number of the children in the study is 40 and their age range is as follows:

1 gr. 4–5 years old – 20 children
2 gr. 5–6 years old – 20 children

All children in the study attend a multilingual kindergarten in the city of Yelabuga in the Tatarstan Republic of the Russian Federation, where they live with their families. The children learn Tatar, Russian and English in an organized form in the kindergarten.

The children were tested employing the following tests:

Knock-Tap Task

The Knock-Tap Task required children to be able to switch from imitating hand actions to doing the opposite action (Korkman, Kirk, & Kemp, 1998). First the children were asked to imitate the examiner by either knocking with a closed fist or tapping with an open palm on a box for eight trials. Then for eight pseudo-random opposite trials the children had to tap when the examiner knocked and knock when the examiner tapped. Thus, in this task the children had to inhibit the prepotent response of imitating the tester's hand action, the response that had just been primed. The percentage of correct responses over eight opposite trials was recorded for each child.

This test was done once at the beginning of the study to identify the children who do not have psychological deficits. The testing was done in the language in which the child feels comfortable – with some in Tatar, with others in Russian, as the goal was the task to be understood.

Wh- complements questions test

The wh-complements questions test is a comprehension test and had eight items and they were translated into Tatar and Russian languages. The children were shown pictures and asked a question such as:

The woman said her husband caught a fish, but it was really an old boot. What did the woman say that her husband caught?

In order to avoid the influence of the language on the results, half of the questions were asked in L1 and the other half in L2. The following day the questions which were asked in L1 were asked in L2, and the questions asked in L2 were asked in L1.

Vocabulary test

The vocabulary test is a comprehension and production test, and the children are shown 10 items from the surrounding world. First the children name the items in their mother tongue Tatar, then they name them in Russian. Then two puppets are introduced. They start to ask questions, naming half of the items in their mother tongue and asking the child to respond how they name it in the official language. And the second part of the items are named in Russian by a second puppet, and the child is asked to answer how they would call the items in their mother tongue. For example:

Puppet 1 says: "I call this a shoulder" (L2)
"What does your puppet say?"...... (shoulder) in L1.

The children involved in the study are healthy, and do not have disorders or delays in their development.

All tests were done in the kindergarten in a separate room where only the child and the reserachers were present. Every child was tested individually. The questions were asked by a native Tatar speaker and Russian speaker. All the answers were writen on protocols and after that analyzed using SPSS and ANOVA analyses.

The research question we seek to answer with this study is following: *Are the children balanced bilinguals from an early age, when they are trained in the kindergarten settings in their mother tongue of Tatar and in their second langauge Russian. If they are not balanced bilinguals, what is the dominant langauge?*

3.Results
Knock-Tap Task
The results for the first test are show in the Figure 1.

Figure 1.

Total scores on the Knock Tap Test as a function of age group

Age group; LS Means
Current effect: F(1, 16)=7,3143, p=,01563
Effective hypothesis decomposition
Vertical bars denote 0,95 confidence intervals

The figure shows that the age of the children is a factor influencing the results of the children. The older children perform the test better than the younger children, which is natural. However, this shows that both groups of children are psychologically healthy, and they do not have any developmental delays or disorders. The children from both groups who could not follow the instructions and the task were excluded from the study. The results are statistically significant. This is shown in Table 1.

Table 1.

Total scores on the Knock Tap Test

Univariate Tests of Significance for Total scores on the Knock Tap Test (Tatarstan Knock Tap Test) Sigma-restricted parameterization Effective hypothesis decomposition

	SS	Degr. – of Freedom	MS	F	p
Intercept	1008.200	1	1008.200	576.1143	0.000000
Age group	12.800	1	12.800	7.3143	0.015627
Home language	0.800	1	0.800	0.4571	0.508618
Age group* Home language	0.200	1	0.200	0.1143	0.739712
Error	28.000	16	1.750		

From the table it is clear that the language used for testing of the children is not important. So the language is not a factor but age is, and the differences between the two groups are statistically significant F (1.16) =7.3143, p = 0.015627.

Wh-complements questions

The test on wh-questions had eight items. In order to avoid the influence of the languages on the result we used an approach allowing us to use half the questions in the mother tongue and the other half in the second language. The following day the order of languages was switched. Here we present the results in both languages.

Results in Tatar

How the children performed the test on wh-questions in Tatar is shown in Figure 2.

Figure 2.
Total scores on Wh-complements questions test on Tatar as a function of age group
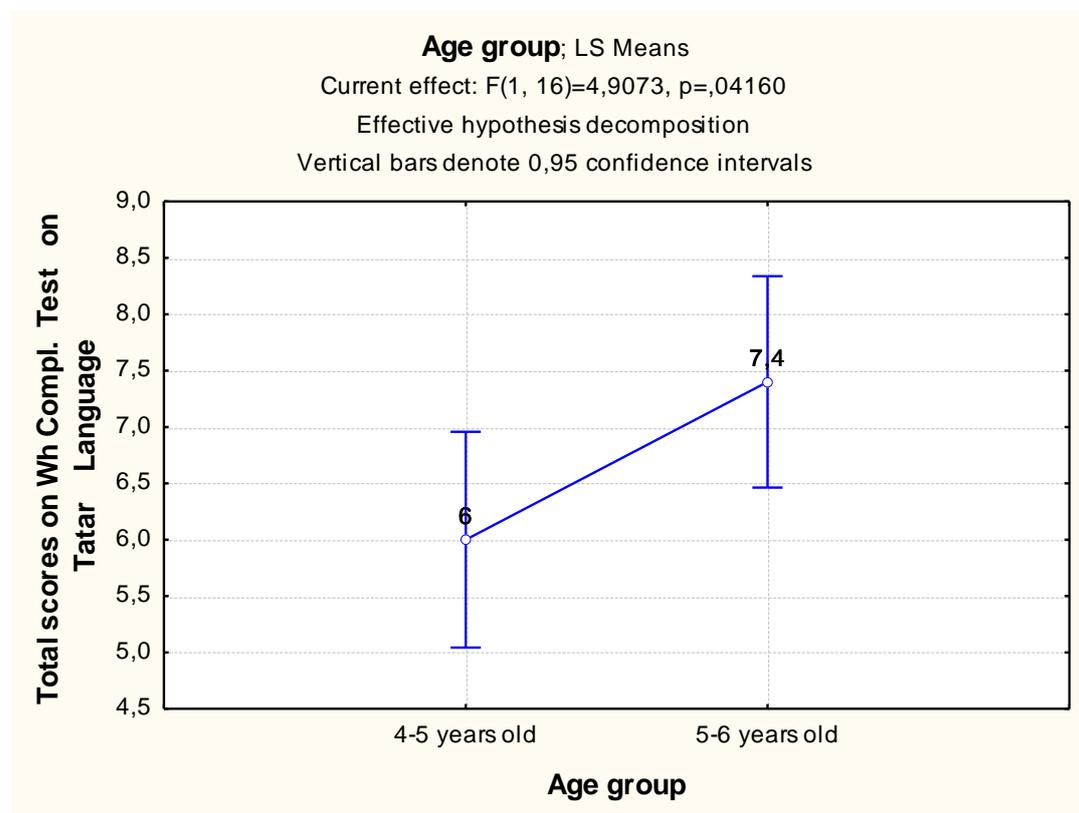

The results show that children 5–6 years old are much better in comprehension of the syntactic structures in Tatar. The differences between the groups are statistically significant F (1.16) = 4.9073, p = 0.04160.

Results in Russian

The results in Russian performing this test are given in Figure 3.

Figure 3.
Total scores on Wh-complement questions test on Russian as a function of age group
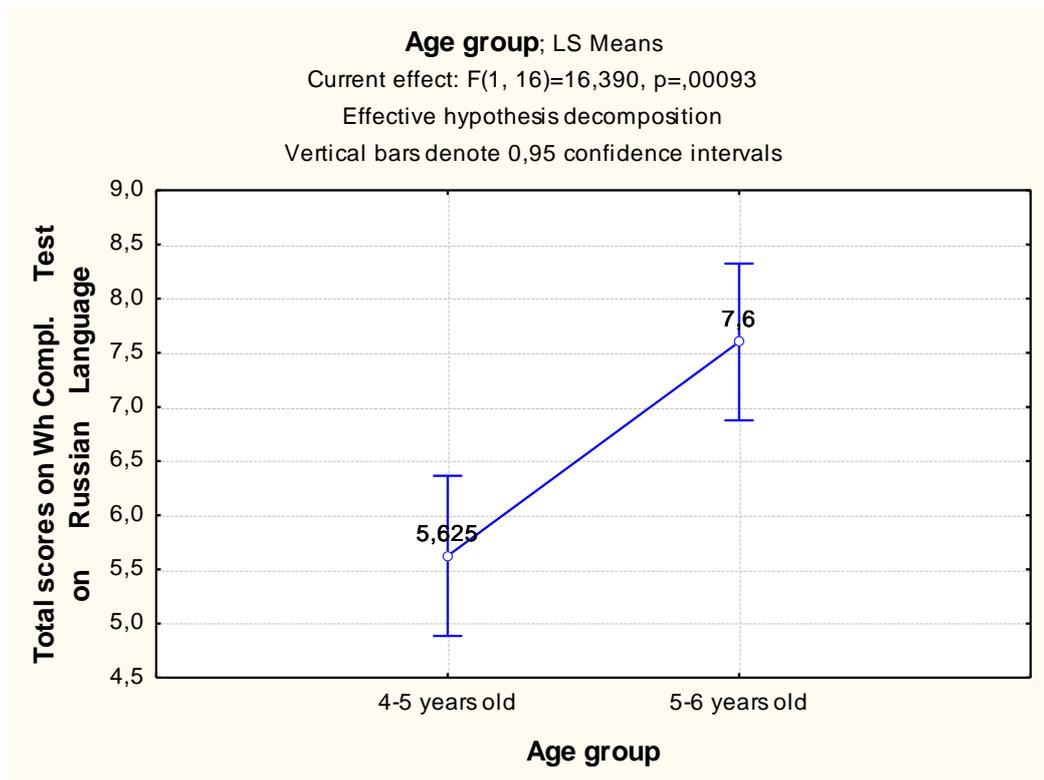
As can be seen from Figure 3, again the older children perform better on the test. They are better in Russian as well. The young children's knowledge of Russian is much less than their knowledge of Tatar. The differences between the groups are statistically significant F (1.16) =16.390, p = 0.00093.

Vocabulary test

As mentioned the vocabulary test has two parts: comprehension and production.

Comprehension
Tatar language
As can be seen from Table 2, between the groups there are no statistically significant differences in the comprehension of the vocabulary in Tatar as a mother tongue. Both age groups understand the vocabulary equally well in their mother tongue.

Table 2.
Vocabulary comprehension in the Tatar language

Univariate Tests of Significance for sum comprehension Tatar language (Vocabulary Richness) Sigma-restricted parameterization Effective hypothesis decomposition

	SS	Degr. of – Freedom	MS	F	p
Intercept	1481.486	1	1481.486	492.9728	0.000000
Age group	3.200	1	3.200	1.0649	0.317441
Home language	0.327	1	0.327	0.1088	0.745829
Age group*Home language	0.572	1	0.572	0.1903	0.668529
Error	48.083	16	3.005		

Russian language

The two age groups are also equally good in the comprehension of the vocabulary in Russian as their second language. This is shown in Table 3. There are no statistically significant differences between the groups in comprehension.

Table 3.
Vocabulary comprehension in the Russian language

Univariate Tests of Significance for sum comprehension Russian language (Vocabulary Richness) Sigma-restricted parameterization Effective hypothesis decomposition

	SS	Degr. of – Freedom	MS	F	p
Intercept	1495.717	1	1495.717	1679.402	0.000000
Age group	2.574	1	2.574	2.891	0.108447
Home language	0.150	1	0.150	0.168	0.686962
Age group*Home language	0.885	1	0.885	0.993	0.333763
Error	14.250	16	0.891		

Production
Tatar language

In connection with the production of the vocabulary in Tatar, there is a relation between the age group and the language. This is shown in Table 4.
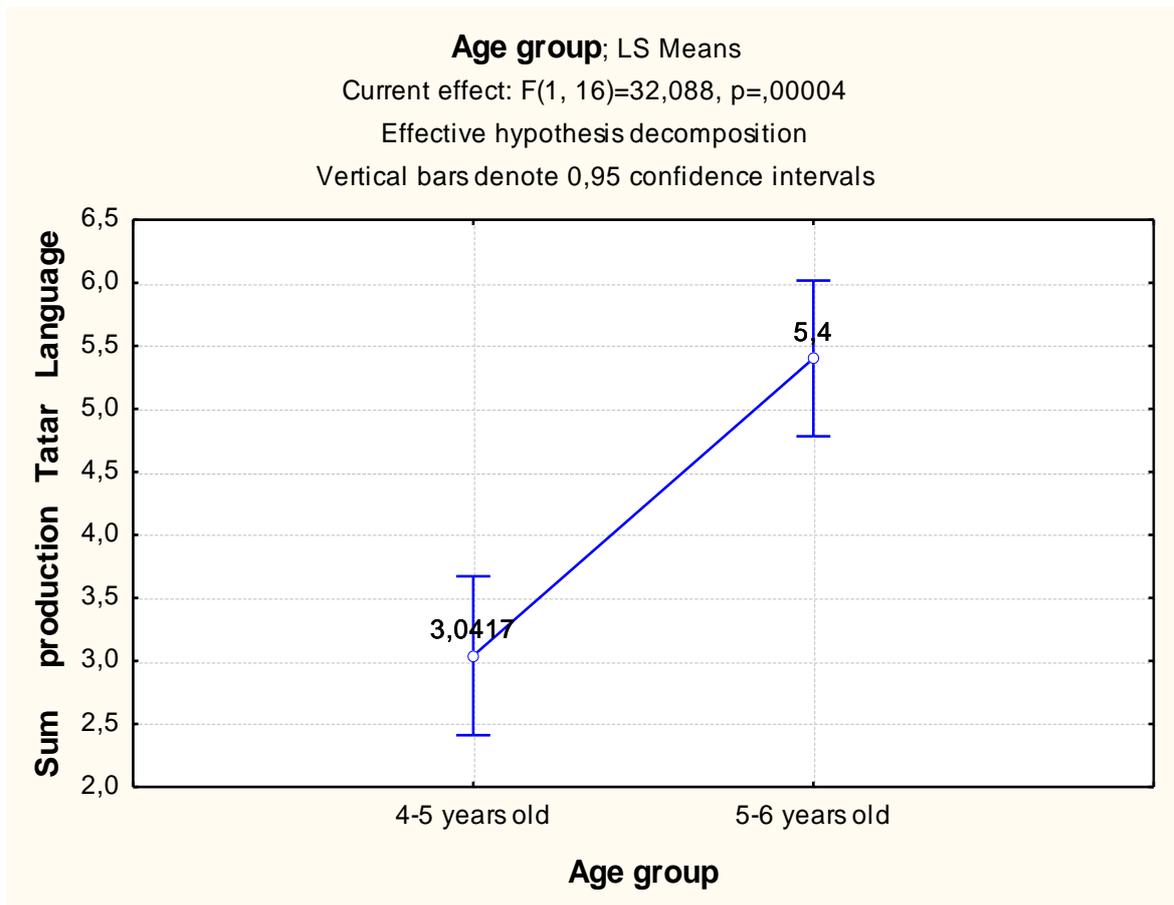
Table 4.
Production in the Tatar language

Univariate Tests of Significance for sum production Tatar language (Vocabulary Richness) Sigma-restricted parameterization Effective hypothesis decomposition

	SS	Degr. of – Freedom	MS	F	p
Intercept	349.0371	1	349.0371	411.1357	0.000000
Age group	27.2412	1	27.2412	32.0877	0.000035
Tatar language	4.8167	1	4.8167	5.6736	0.029977
Age group*Tatar language	1.7146	1	1.7146	2.0197	0.174469
Error	13.5833	16	0.8490		

Let us look on the production of the age groups. This is shown in Figure 4.

Figure 4.
Production in the Tatar language as a function of age group

Age group; LS Means
Current effect: F(1, 16)=32,088, p=,00004
Effective hypothesis decomposition
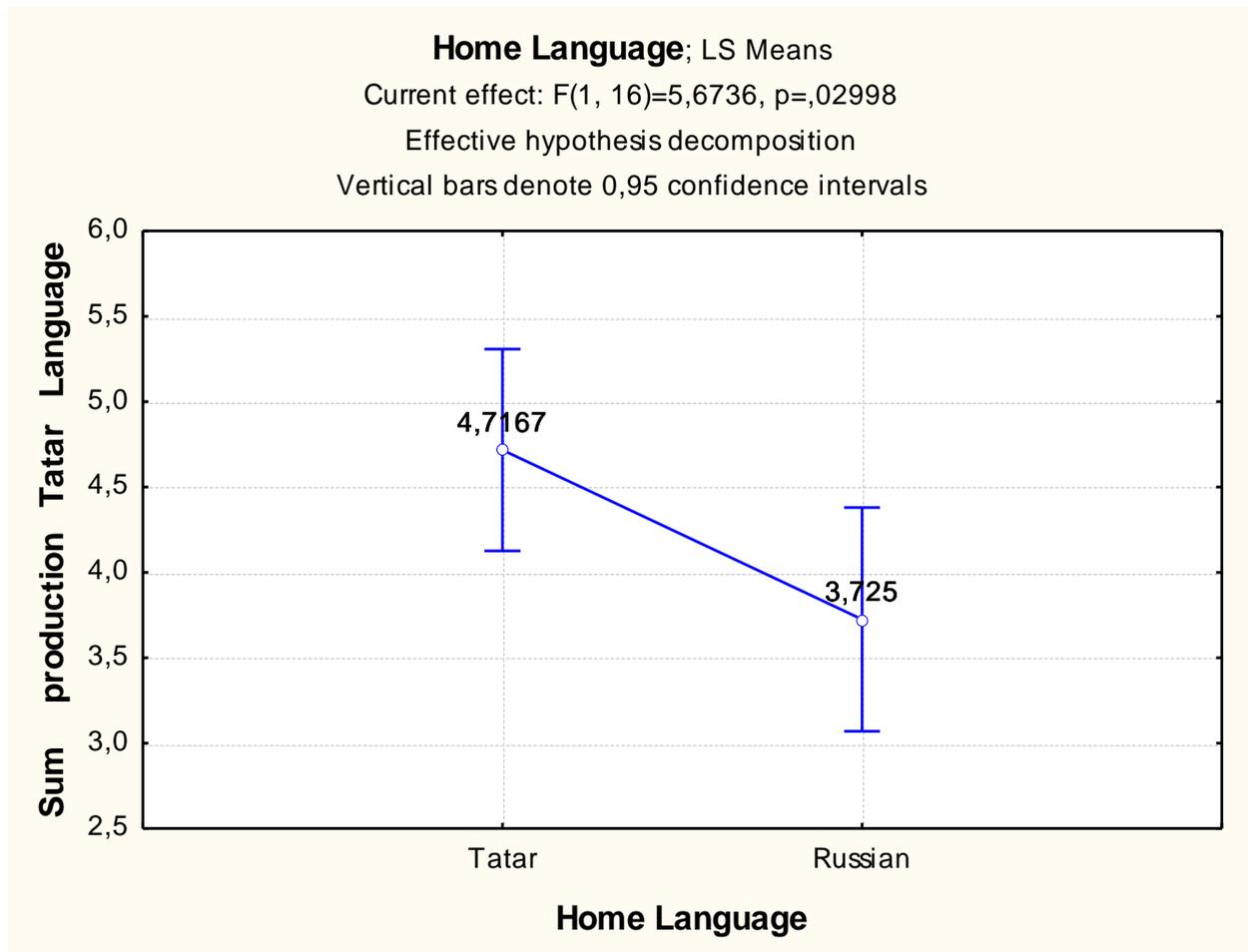Vertical bars denote 0,95 confidence intervals

The children 5–6 years old have better results than those 4–5 years old. The differences between the two age groups are statistically significant F (1.16) = 32. 0888, p = 0.00004. The richness of vocabulary of the older group of children in the Tatar language is greater.

If we compare the languages, the children show better production in Tatar language, especially the older group. This is shown in Figure 5:

Figure 5.
Production in the Tatar language as a function of home language

Home Language; LS Means
Current effect: F(1, 16)=5,6736, p=,02998
Effective hypothesis decomposition
Vertical bars denote 0,95 confidence intervals

The differences between the production in both languages are statistically different.The children's knowledge in the vocabulary of Tatar is greater than their knowledge of Russian vocabulary F (1.16) =5.6736, p = 0.02998.

Russian language

The production in Russian is shown in Table 5. It is clear from the table that there is a relation between the age groups and Russian language production.

Table 5.
Production in the Russian language

	SS	Degr. of – Freedom	MS	F	p
Univariate Tests of Significance for sum production Russian language (Vocabulary Richness) Sigma-restricted parameterization Effective hypothesis decomposition					
Intercept	597.1514	1	597.1514	1126.258	0.000000
Age group	4.4983	1	4.4983	8.484	0.010169
Russian language	6.0167	1	6.0167	11.348	0.003911
Age group*Russian language	0.4656	1	0.4656	0.878	0.362618
Error	8.4833	16	0.5302		

How did the groups perform the production part of the test in Russian? This is shown in Figure 6.

Figure 6.
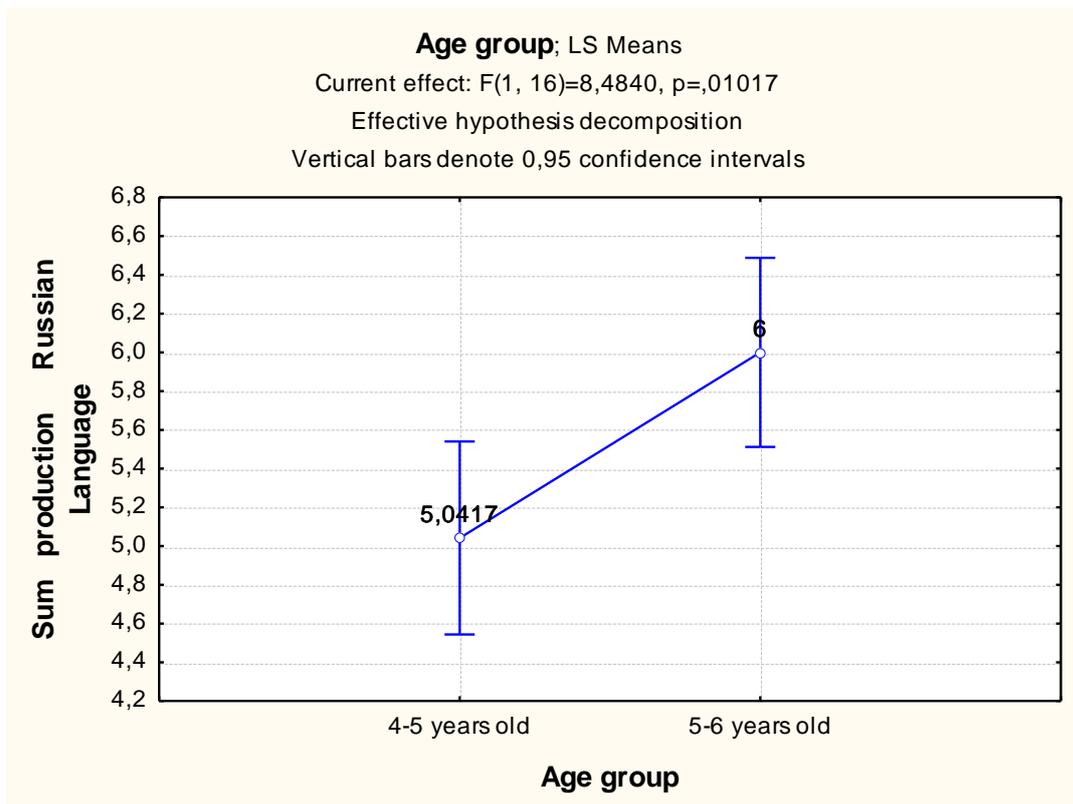*Production in Russian as a function of age group*

Figure 6 shows that the children 5–6 years old have a better knowledge of the Russian vocabulary in comparison with the younger children 4–5 years old. The differences between the groups are statistically significant F(1.16), p = 0.01017.

Figure 7 shows the production in Russian as a function of the second language.

Figure 7.
Production in Russian as a function of second language
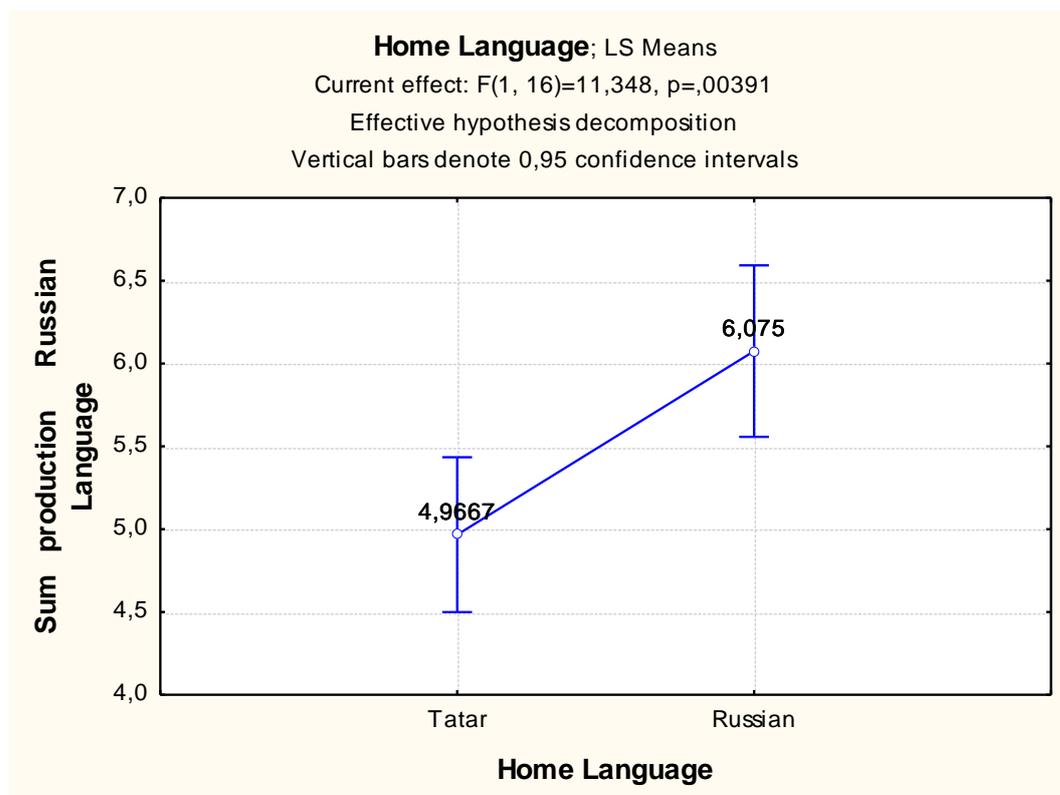
The production in Russian is greater than the production in Tatar. The differences between the knowledge in Russian and Tatar are again statistically significant F (1.16) = 11.348, p = 0.00391. The high production of Russian vocabulary is typical for the children from the second group – 5–6 years old.

4.Discussion and Conclusion

As Armon-Lotem and Meir (2019) note: "measuring young children's language exposure and input is not only of interest to better understand the bilingual development process, but also to be able to evaluate whether any finding of delayed language acquisition by a bilingual child is due to limited exposure or to language impairment" (p. 193). It is known that many bilingual children are wrongly diagnosed with language impairment and with language delay and in many cases such as the case with Roma children in Europe, they are even considered to be mentally retarded (Kyuchukov, Ushakova, & Yashina 2017; 2018)

As Nicoladis (2018) points out, depending on the age and the form of acquisition of the language (simultaneous or sequential), there are differences in the use and knowledge of the languages (p. 81). It influences the knowledge of the language likewise at a later age when the speaker is an adult.

Thus, how the language was learned and what the consequences of language acquisition are influences how good a speaker will be later in life. On the other hand, it is very important to know at what age the bilingual speaker became a balanced bilingual. Balanced bilingualism helps for reading and comprehension of the text, for oral and written communication, for being able to switch from one language to a second in any situation in life.

The study here, although limited, shows the following tendencies:

1. The comprehension of the wh-complements questions are an important part of the syntax development of Tatar-Russian bilingual children. The wh-complements questions are difficult in Turkic languages because of the special structure of the syntax and because of the position of the verb in the sentence (Herkenrath, 2011). The children acquire the wh-complements questions in both languages at an age of 5–6 years old.

2. The comprehension of the vocabulary is acquired in both Tatar and Russian languages at an age of 4–5 years old, but the production is acquired a bit later – at an age of 5–6 years old.

In conclusion we can say that the Tatar-Russian bilingual children become balanced bilinguals at an age of 5–6 years old. The grounds for it are the family input of the languages on one hand, but om the other the influence of the preschool educational system in Tatarstan, where the Tatar and Russian languages are introduced and taught on an equal level.

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