



Article

Influence of Family Language Policies on Language Proficiency across Generations: A Study of Russian-Speaking Families in Germany

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Abstract: This study investigates the influence of selected aspects of family language policies (FLPs) on language proficiency across three generations of Russian-speaking families in Germany using data from a sample of 18 families. The data were collected via questionnaires and a cloze test was used to measure proficiency in Russian. Multiple regression analysis and Dunn's test were employed to analyze the influence of the selected components of FLP and assess differences in language proficiency between family members. The findings highlight a significant generational shift in language proficiency: parents exhibited the highest proficiency in Russian, followed by grandparents, with children showing the least proficiency and greater variation in their language skills. This pattern reflects the dynamics of language practices in families where older generations predominantly use Russian, whereas children display a greater inclination towards German or enhanced bilingualism. Additionally, this study underscores the positive influence of literacy skills in both Russian and German, reading in Russian, and a positive attitude towards maintaining cultural ties through reading on Russian language proficiency. Although attendance of Russian language lessons was positively correlated with the proficiency scores of children, the statistical models were only partially successful in accounting for their overall impact on proficiency, indicating that other unexplored factors may also play a significant role.

Keywords: family language policy (FLP); Russian–German bilinguals; cross-generational study; language use and attitudes; language proficiency; heritage language transmission



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1. Introduction

1.1. Theoretical Background: Family Language Policy

The exploration of how bi- and multilingualism manifest themselves in family interactions is of paramount importance for sociolinguistic studies on heritage language maintenance. The question of why some children become active and proficient users of multiple languages from an early age while others do not, despite similar exposure to the languages, continues to be a relevant topic in heritage language research. The concept of family language policy (FLP) as a special type of language policy (Spolsky 2004) provides a structured framework to address this question. Spolsky (2004, p. 5) identified three components of FLP: "[the family's] language practices—the habitual pattern of selecting among the varieties which make up its linguistic repertoire; its language beliefs or ideology—the beliefs about language and language use; and any specific efforts to modify or influence that practice by any kind of language intervention, planning or management".

King et al. (2008) highlight the importance of studying FLP, noting its crucial impact on children's development, educational success, and the preservation of minority languages. Originally, FLP was defined as "explicit and overt planning in relation to language use within the home among family members" (King et al. 2008, p. 907), focusing on more or less deliberate decision-making processes within families regarding home language practices

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and their impact on children's language development. Currently, research into FLP also includes the exploration of implicit and covert language practices, extending to aspects of acquiring and practicing literacy skills in the home language (Curdt-Christiansen 2013). In the same vein, Ren and Hu (2013) contribute to the study of FLP by "incorporating two hitherto disconnected fields of research—FLP and family literacy practices—to an understanding of early language and literacy acquisition in the familial milieu" (Curdt-Christiansen 2013, p. 4). Since recent research highlights the crucial connection between literacy skills and language maintenance (Hammer and Miccio 2006; Howard et al. 2014; Limbird et al. 2014; Rhys and Thomas 2013; Zhang and Koda 2018), it becomes evident that literacy plays a pivotal role in preserving and transmission of languages within families and communities.

1.2. Generational Dynamics and FLP

Over the past two decades, research on FLP has evolved through various stages (Fogle and King 2017; Lanza and Lomeu Gomes 2020), transitioning from an emphasis on children's language acquisition to a broader sociolinguistic interest in the conditions that facilitate language socialization. Numerous studies highlight the significance of the role of various generations in a family for FLP, e.g., by stressing distinct parenting approaches that may not align with those of grandparents and other relatives (Curdt-Christiansen 2009; Fogle 2012; Lanza 2004; Tannen 2006; Van Mensel 2018; Zhu and Li 2016). Families are seen as the main site of generational contact and as dynamic systems consisting of members of different generations, with each having their own perspectives on, agency in and ideas about languages (Purkarthofer 2020).

However, previous research on FLP has typically focused on the role of interactions between children and their parents in multilingual language acquisition and language maintenance (Schwartz 2020). The impact of members of the extended family, particularly grandparents, on FLP and home language maintenance has been studied much less frequently. While some studies have shown that grandparents can give negative feedback about the insufficient knowledge of their grandchildren in the heritage language, thereby discouraging them from using the heritage language in family interactions (e.g., Cho 2015), other studies confirmed that grandparents played a positive role in transmitting the heritage language to their grandchildren (Ruby 2011; Yousef 2016). Grandparents often assist in the acquisition of literacy practices in the heritage language of bilingual grandchildren (Ren and Hu 2013). A study conducted by Braun (2012) showed that the influence of grandparents as an affective factor in heritage language transmission depended on the place of residence: While grandparents residing in the host countries often spoke the majority language to their grandchildren, grandparents who still resided in the countries of origin provided an important source of heritage language input and motivation for their grandchildren to acquire the heritage language.

On the other hand, efforts in language documentation and revitalization have primarily targeted the elderly, while interest in children as developing new speakers emerged only more recently in this strand of research (Purkarthofer 2020). New speakers, as defined by Smith-Christmas et al. (2018), are social actors who use and claim ownership of a language that is not typically seen as their native one. These speakers acquire the language through formal education, community programs, or personal initiative later in life. Unlike traditional accounts of language preservation, the exchange of knowledge is not merely a one-way process from elders to younger family members; instead, it is a collaborative effort among all members of a family. Consequently, there has been an emerging interest in the concept of child agency (Smith-Christmas 2018). Following this concept, children play a crucial role as emergent speakers who actively contribute to the dynamic process of language transmission and transformation in the family. They are not passive recipients of language but are active agents in shaping their linguistic environment and practices (Said and Zhu 2019; Smith-Christmas 2018). For example, children often navigate and negotiate language use in multilingual families based on their social interactions, both within and

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outside the family, thereby influencing language maintenance and shift in their immediate surroundings (Gafaranga 2010; Obojska 2017, 2018).

1.3. Internal and External Factors Affecting Heritage Language Transmission

Recent research has highlighted that heritage language proficiency often depends on a complex interplay of internal and external factors. Internal factors include the child's age, the age of second language onset, and length of exposure to the heritage language. External factors encompass the parents' education and occupation, family size, and the broader sociolinguistic environment. The amount and quality of exposure to the heritage language at home and in educational settings has been identified as one of the most crucial factors for heritage language maintenance. For instance, a study conducted by Armon-Lotem et al. (2011) emphasizes the crucial role of internal, temporal factors, such as age and length of second language exposure, in heritage language development. Similarly, Rodina et al. (2020) found that both internal factors like age and external factors such as family type and the extent of heritage language instruction significantly impact heritage language acquisition. Paradis (2023) expands on these insights by emphasizing the importance of individual differences with regard to decisive factors in bilingual development. These factors include not only the quantity of linguistic input but also child-internal factors like socioemotional wellbeing and external factors like parent's proficiency in the languages. Internal factors can sometimes explain more variance in language abilities than external ones (Paradis 2023). Interestingly, the same factors that encourage the transmission of the language from one generation to the next in one ethnolinguistic group can cause a shift away from the language in another group (Karpava et al. 2018; Otwinowska et al. 2021). This highlights the importance of studying each ethnolinguistic group on its own to understand these dynamics.

1.4. Heritage Language Use and Attitudes in Russian-Speaking Families in Germany

Germany has historically been a popular destination for emigrants from the former USSR, but it emerged as a primary place of resettlement during the 1990s. The considerable number of Russian-speaking inhabitants in Germany has sparked a great interest among researchers of (heritage) Russian. This includes sociolinguistic studies on how Russian is used in families and the family's attitudes towards it (Anstatt 2013, 2017; Brehmer 2021; Levkovych 2012; Meng 2001; Ries 2013). Brehmer (2021) found that while the use of Russian among adolescents is declining, particularly regarding media consumption and frequency of homeland visits, Russian remains prevalent in family interactions. Despite decreased overall exposure to Russian, there has been an improvement in both lexical and grammatical proficiency among the investigated adolescents, which can be partly explained by the consistent attendance of heritage language instruction. Protassova's study (Protassova 2018) observed that Russian-speaking children in Finland, Germany, and France use the majority language more frequently in daily interactions than their parents, leading to a higher prevalence of majority language usage among the children. This trend highlights the shift towards the majority language in various sociolinguistic contexts, aligning with the current study's focus on generational differences in language use and attitudes (see also Berend 2014; Meng 2001; Meng and Protassova 2017 for in-depth studies on generational differences and developmental tendencies in the use of languages and language varieties in Russian-speaking communities in Germany).

2. The Current Study

2.1. Goals and Research Questions

Using Spolsky's tripartite model of FLP as a theoretical framework, our study seeks to explore selected components of language practices, management, and ideologies among three generations of Russian-speaking family members in Germany, with an expanded focus on the role of literacy practices. Our study contributes to the field by offering a nuanced understanding of how certain components of language practices and ideologies

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evolve across generations in immigrant families. By specifically examining older children, we provide insights into the long-term effects of FLP, highlighting the dynamic nature of language maintenance and shifts in families over time. Thus, the first research question (RQ1) addresses the different language preferences (as a proxy for language practices) and attitudes (as a proxy for language ideologies) regarding the Russian language, which can be found among the three generations included in the study. Following previous findings on the distribution of languages and language varieties in Russian-speaking families in Germany (see Section 1.4), we hypothesize that representatives of the three generations will differ regarding their language practices and their views regarding the importance of Russian language maintenance. Specifically, we anticipate a gradual shift, with younger generations using Russian less frequently than the preceding older generations. Grandparents are expected to use Russian most frequently, followed by their children, and their grandchildren, with the latter exhibiting the least frequent use of Russian. Second, we aim to analyze how the two investigated components of FLP—language preferences and language attitudes—affect the proficiency in Russian of all family members (RQ2). By comparing three generations, our study offers a new and valuable perspective for examining the development of patterns of language use and attitudes across representatives of these generations in real families, in contrast to studies that rely solely on synchronic cross-sectional data from different age groups. Special attention will be paid to the question of how literacy skills and single explicit language management strategies, such as participating in Russian language lessons, impact the proficiency of school-aged children in their heritage language, Russian (RQ3).

2.2. Participants

Our study comprises 18 Russian-speaking families residing in Germany, each consisting of three generations of Russian-speaking members, to explore the intergenerational dynamics of FLP. Our original selection criteria aimed at including families whose parents had immigrated to Germany when they were between 10 and 20 years old and, therefore, experienced a rapid change in the language of instruction in educational settings after entering Germany. At the time of the interviews, they ideally should have two children who were born in Germany (aged between 10 and 15 years) and never attended Russian-speaking educational institutions. Furthermore, we wanted to include at least one grandparent from each family who immigrated as adults and completed their whole education and primary language socialization in a Russian-speaking environment.

During the recruitment of participants for our study, several challenges were encountered, which were mostly linked to problems of finding participants willing to participate in a study on Russian in Germany in times of the Russian invasion of Ukraine and its consequences for the perceived prestige of Russian in Germany. As a result, we were forced to modify our initial selection criteria, especially regarding the age of the parent generation at immigration, with some participating parents being over 20 years old when they came to Germany. Furthermore, the intended tri-generational representation was not possible to maintain due to the unavailability of grandparents in two cases. To compensate for this, we gathered data from both grandmothers and grandfathers in three families so that the generation of grandparents is represented by 19 individuals coming from 16 different families. In four families, the fathers were either not present or refused to participate, which resulted in the fact that just one representative of the parent generation could be included in the data set in these cases. Finally, we could include just one child from 11 families due to either because the sibling was outside the specified age range or the fact that the sibling did not speak Russian at all.

Table 1 offers an overview of the different sociolinguistic profiles of the representatives of the three generations included in our study based on data gathered through questionnaires, which are further explained in Section 2.3.

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| Generation | N | Sex (f/m) | Age at Te | Age at Testing Age at Arriva | | Arrival | Country of Birth |
|--------------|----|--------------|--------------|------------------------------|-----------------|---------|---|
| | | | Average (SD) | Range | Average (SD) | Range | |
| Children | 25 | 14/11 | 12.32 (2.69) | 7–17 | 0 (0) | 0 | Germany (25) |
| Parents | 32 | 18/14 | 44.56 (4.77) | 37–56 | 19.06 (4.81) | 10–33 | Russia (17), Kazakhstan (7), Ukraine (3), Uzbekistan (2), Azerbaijan (1), Kyrgyzstan (1), Turkmenistan (1) |
| Grandparents | 19 | 12/7 | 67.91 (6.42) | 59–78 | 43.27 (4.83) | 35–53 | Russia (11), Kazakhstan (4), Ukraine (3), Uzbekistan (1) |
| Total | 76 | 44/32 | | 7–78 | | 0–53 | |

Table 1. Participants of this study (n = 76).

The children in our study represent typical heritage speakers of Russian since they were all born in Germany to Russian-speaking parents. They primarily communicate in Russian when at home, despite their early exposure to German: six children were exposed to German from birth or earlier than 8 months of age. The majority of the 13 children, however, began to learn German when they started attending kindergarten, ranging in age from 1 to 2 years. An additional group of six children started learning German a bit later, between the ages of 2.5 and 3 years. Thus, all children are characterized by an early onset of bilingual language exposure and can be considered simultaneous bilinguals (following the criteria discussed in Meisel 1989).

The parents in this study, constituting the intermediary generation, exhibit varied personal histories of immigration. This group encompasses 16 repatriates (i.e., people who had German ancestors in the former USSR), 11 Soviet Jews, and 5 individuals who immigrated to Germany for other reasons, such as marriage. All of the participants have lived in Germany for over 15 years. In terms of education, a significant proportion of these parents are highly educated, having obtained academic degrees from countries including Russia, Germany, and others. Specifically, 20 parents have higher education. Five of them completed their higher education in Russia, with one also studying in Azerbaijan and another in France. Four continued their education in Germany after immigration. In total, 11 parents received their academic qualifications exclusively in Germany. However, 12 parents did not receive higher education.

The grandparents in our study have lived in Germany for over 19 years, with just one exception of a grandmother who immigrated 9 years ago. Their immigration backgrounds include nine repatriates and eight Soviet Jews, along with two individuals who immigrated for other reasons, such as marriage. Regarding education, 9 grandparents received higher education degrees from Russian-speaking countries, while 10 did not obtain higher education degrees.

2.3. Methods

Data collection took place via the SoSciSurvey platform in individual Zoom sessions with each family member. Participants were informed about the study and invited to participate through multiple channels, including social media platforms, Russian-speaking newspapers, personal networks, and a dedicated recruitment website. To express gratitude for their participation, all of the participants received monetary compensation. Additionally, each family member signed an informed consent form, ensuring their voluntary participation and compliance with ethical approval guidelines for the study.

We designed three comprehensive questionnaires, one for each generation, which consisted of several thematic sections. In the first part, we gathered demographic information from our participants. Subsequent parts were targeted at eliciting information on the language profiles of the participants, the language practices in the family, strategies for

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language management, and beliefs about languages and language attitudes (see Section 2.4 for more details).

As a second step, the participants were exposed to a cloze deletion test (Luchkina et al. 2021), which was also administered through SoSciSurvey in a bimodal way, meaning that the participants could see the text and hear it read aloud by the tester, to assess their proficiency in Russian (see Section 2.4.2). Both the questionnaire and the cloze deletion test were completed orally by the participants in the presence of the test administrators to ensure the accuracy and comprehensiveness of the data collected. Due to the presence of the test administrator and the bimodal nature of the cloze deletion test, the participants did not have to write or read but could see all the questions and texts while solving the tasks. We opted for this bimodal way of conducting the cloze test in order to prevent problems stemming from varying degrees of literacy in Russian, especially concerning the heritage speaker group.

Following data collection, we employed the R 4.1.2 software for data preparation and analysis. This included generating descriptive statistics to determine basic trends in the data, as well as creating visualizations of the results.

To investigate the impact of FLP components like language preferences (as a proxy for language) practices, attitudes towards languages (as a proxy for language ideologies) and attendance of heritage language instruction (as a proxy for explicit language management) on language proficiency scores, we conducted multiple linear regression analyses. For this purpose, the scores obtained by our participants in the cloze test were correlated with the scores received from the answers in the questionnaire. For scoring the answers obtained from the participants in the different sections of the questionnaire, we implemented a scoring procedure that awarded credits for answers that highlighted the role of Russian for communication in the family. Thus, e.g., when asked about their language choice when communicating with individual family members, participants received five points for choosing the answer 'only in Russian', four points for 'mostly in Russian, but sometimes in German, three points for '50% in German, 50% in Russian', two points for 'mostly in German, but sometimes in Russian', and one point for 'only in German'.

To ensure comparability across participants, we scored each answer in a standardized way and compiled a cumulative score for each participant in every section of the questionnaire. The cumulative score represents the total sum of points earned in each section, providing an overall measure of language practices, preferences, or attitudes. This allowed us to directly compare participants' responses across different sections and among family members.

The statistical analyses were crucial for identifying significant relationships between the investigated selected components of FLP and the measured proficiency levels in Russian. Furthermore, to explore differences in language proficiency among family members, we applied the Dunn post hoc test with Bonferroni correction.

2.4. Factors Included in the Analysis

2.4.1. Self-Assessment of Language Skills

Apart from gathering demographic data from our participants, the questionnaire included questions about their language profiles. Specifically, we inquired about the language the participants considered to be their native language, the language they know best, and the total number of languages they speak.

To obtain a nuanced understanding of their language proficiency, participants were asked to self-assess their proficiency in Russian and German. This self-assessment covered four basic language skills: speaking (including pronunciation), listening, reading, and writing. By asking participants to rate their skills in these areas for both Russian and German, we aimed to capture a detailed view of their self-perceived bilingual competencies.

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2.4.2. Proficiency in Russian

In order not to be dependent on self-assessments regarding the participants' proficiency in Russian, we also administered the cloze deletion test developed by Luchkina et al. (2021) to our participants (see Appendix A). This standardized tool was designed to specifically measure the proficiency levels of bilingual and/or second language learners of Russian, which made it suitable for providing an objective measure of the proficiency in Russian of the representatives of the different generations in our selected Russian-speaking families.

The test uses a format where words are omitted from sentences, requiring participants to select the most appropriate option from multiple choice answers provided to fill in each blank. This testing format aims to evaluate the participant's vocabulary, grammar, and contextual inference skills as essential components of language proficiency.

Although the text used in the cloze test was originally designed for readers of high school age or older, it was selected for this study to enable comparison across three generations. Given the limited availability of proficiency tests appropriate for all age groups, this choice was the most feasible for assessing language proficiency across the sample. Statistical analyses revealed no significant effect of age within the group of children, indicating that the test was suitable for participants of different ages without bias toward older children.

2.4.3. Language Practices

According to Spolsky, language practices refer to the habitual selection among the varieties present in a family's linguistic repertoire, emphasizing actual language choices and preferences in the family context (Spolsky 2004). In our study, we gathered data on language practices in the investigated families via a set of questions in the questionnaire that specifically targeted the language use of every participant when communicating with the individual family members. This section of the questionnaire also included items that were directed at the participant's perception regarding the language use of other family members. This approach allowed us to gain a comprehensive overview of the language practices in the family, uncovering not only the participants' own language use depending on the interlocutor but also their perceptions of language preferences across different generational dyads of interlocutors.

Furthermore, a specific section of our questionnaire contained questions about the children's contact with Russian-speaking individuals living outside of Germany. This part of the questionnaire targeted the broader social network of Russian language use and its role in maintaining Russian among children in a diaspora context.

Additionally, we asked all family members about their language preferences in various media consumption activities, such as reading, internet browsing, and watching TV and movies. This allowed us to shed some light on the diversity of media activities of the individual family members and the families as a whole.

2.4.4. Language Management

Spolsky defines *language management* as efforts aimed at modifying or influencing language practices through planning or intervention. This covers family strategies to enhance language learning and use, targeting actions to ensure that the heritage language, Russian, is maintained (Spolsky 2004). To investigate language management in our families, we asked about the children's attendance of Russian language lessons. Although this is by no means the only manifestation of overt language management, the attendance of formal heritage language instruction prototypically stands for language management efforts undertaken by families to ensure the acquisition and maintenance of the Russian language by the children (see Brehmer and Mehlhorn 2018).

2.4.5. Language Ideology

Spolsky considers *language ideology* as the beliefs about languages and their usage, which are crucial for shaping language practices and management strategies in families.

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These ideologies can lead to a prioritization of certain languages based on cultural significance or perceived benefits, thereby directly impacting linguistic behaviors and policies at the family level (Spolsky 2004). In our study, we gathered reactions to statements from our participants which were designed to reveal their attitudes toward the Russian language. The respective statements in the questionnaire centered around its perceived benefit for professional careers in Germany, its cultural and cognitive value, and the need for more institutional support of Russian language education in Germany. Some questions addressed only the adults in our sample, while others were tailored specifically for the children (see Section 3.5 for more details). Participants were asked to indicate their opinion on these predefined statements by using a five-point Likert scale ranging from "I totally agree" to "I totally disagree". This approach allowed us to obtain a comprehensive view of the attitudes towards the Russian language and to compile a cumulative score, which was then used to compare the overall attitudes of the three generations towards Russian. This served as the starting point for our investigation of the potential influence of these attitudes on Russian language proficiency and maintenance.

3. Results

3.1. Language Profiles and Self-Assessment in Russian and German

Our data reveal generational differences regarding the language profiles in Russian-speaking families. Children reported the highest multilingual repertoire, with a range of three to six languages spoken (Mean = 4.32; SD = 0.8). The parents' responses showed a broader range from two to eight languages (Mean = 3.94; SD = 1.34), but a lower average number of spoken languages. The grandparents reported speaking fewer languages, ranging from two to seven different languages (Mean = 3.15; SD = 1.30). Regarding the average number of spoken languages, the answers thus reveal a gradual decrease in multilingualism from the younger to the older generations. Participants mentioned speaking primarily typical foreign languages like English, French, Spanish, and Italian, with some also indicating knowledge of Czech, Polish, Serbian/Croatian, Portuguese, Latin, Arabic or Chinese. Some participants also claimed knowledge of other languages spoken in the former USSR, first and foremost Ukrainian, but also Uzbek, Azeri, Kazakh, and Yiddish.

Table 2 depicts the native languages and self-perceived proficiency-based hierarchy between Russian and German across the three generations.

| Generation | Native Language | | | Best Known Language | |
|--------------|-----------------|--------|-----------------------|---------------------|--------|
| | Russian | German | Russian and German | Russian | German |
| Children | 32 | 12 | 56 | 16 | 84 |
| Parents | 76.5 | 0 | 23.5 | 88 | 12 |
| Grandparents | 95 | 0 | 5 | 100 | 0 |

Table 2. Native languages and self-perceived language hierarchy by generation in %.

The children's responses exhibit a diverse scenario: more than half of them consider both Russian and German as their native languages, while 32% recognize only Russian as their native language. However, 84% of them state that they have a greater proficiency in German than in Russian, which shows that a perceived native language does not necessarily represent the stronger language in terms of proficiency. Although we did not provide an exact definition of the term 'native language' for our participants, we expected them to designate the language they feel the closest emotional connection to, and the differences between the answers to these two questions illustrate that our participants indeed differentiated between native and dominant/strongest language. Parents predominantly identify Russian as their native language, which, in their case, aligns with a higher proficiency in Russian. The grandparents report the strongest emotional connection to Russian, resulting in 95% voting for it as their native language, which is mirrored by the univocal response

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that Russian represents their stronger language. This transition from grandparents to children indicates a shift from a primarily Russian-speaking identity to increased bilingualism or a higher proficiency in German among younger generations.

Table 3 provides a more fine-grained view of the self-assessed proficiency across generations. The predefined categories of self-ratings of proficiency in Russian and German were located on a continuum from 0 ("cannot/very bad") to 4 ("very good"). We distinguish between *literacy skills*, which cover writing and reading, and *oral skills*, encompassing speaking, pronunciation, and listening comprehension.

| Table 3. | Self-rated | proficiency | in Russian | and (| German 1 | by | generation | on a | scale | from (|) to 4 |
|-----------|-------------|------------------|------------|-------|----------|----|------------|------|-------|--------|--------|
| (0 = cann | ot/very bad | d, $4 = very go$ | ood). | | | | | | | | |

| Generation | Literac | y Skills | Oral Skills | | |
|--------------|-------------|-------------|-------------|-------------|--|
| | Russian | German | Russian | German | |
| Children | 1.92 | 3.56 | 3.01 | 3.68 | |
| Cilitaten | (SD = 1.0) | (SD = 0.55) | (SD = 0.62) | (SD = 0.38) | |
| Parents | 3.48 | 3.19 | 3.68 | 3.06 | |
| raients | (SD = 0.53) | (SD = 0.79) | (SD = 0.42) | (SD = 0.7) | |
| Grandparents | 3.74 | 1.84 | 3.81 | 1.65 | |
| | (SD = 0.42) | (SD = 0.77) | (SD = 0.34) | (SD = 0.72) | |

Children exhibit moderate literacy skills in Russian, while their self-assessment for literacy skills in German shows the highest score among all three generations. In the realm of oral skills, they claim considerably higher proficiency in Russian compared to the literacy skills which results in a more balanced distribution for Russian and German, although individual variation in Russian oral skills is still considerably higher than in German, which parallels the findings for literacy skills. Overall, they consider their proficiency in German, regarding both literacy and oral skills, to be higher than in Russian, which reflects the dominant position of the majority language German.

Parents claim strong proficiency in Russian for both literacy and oral skills. While their self-assessment of proficiency in German is somewhat lower than in Russian, especially regarding oral skills, it nevertheless shows an almost balanced level of skills across both languages. The higher standard deviation observed in their German language skills points to a higher interindividual variability in this group, which is different from the children's data.

Grandparents show the greatest self-proclaimed proficiency in Russian, especially in oral communication, highlighting their deep connection to their native language. Their proficiency in German is considerably lower, which may indicate a dominance of Russian language use over their entire lifespan.

3.2. Proficiency Scores in Cloze Deletion Test

Figure 1 presents the results obtained from the cloze deletion test. According to the criteria employed by Luchkina et al. (2021), the scoring ranges correspond to the proficiency levels in Russian as follows: Level 4 (High) encompasses scores from 75 to 100%, while native-like accuracy is specifically indicated by scores ranging from 98 to 100%; Level 3 (Mid) spans from 45 to 74%, indicating moderate proficiency; Level 2 (Low-mid) covers the range from 20 to 44%, suggesting elementary understanding; and Level 1 (Low) includes the values from 5 to 19%, thereby denoting minimal proficiency.

Our analysis showed that all parents and grandparents, with the exception of one grandfather and one father, achieved Level 4; thus, they demonstrate high proficiency in Russian. One parent and one grandparent from different families did not participate in the test. However, only 25.8% of the parents reached the native-like accuracy threshold. Notably, parents scored overall higher than grandparents, a finding that diverges from the self-assessments where parents tended to be slightly more critical as regards their language skills in Russian compared to the grandparents.

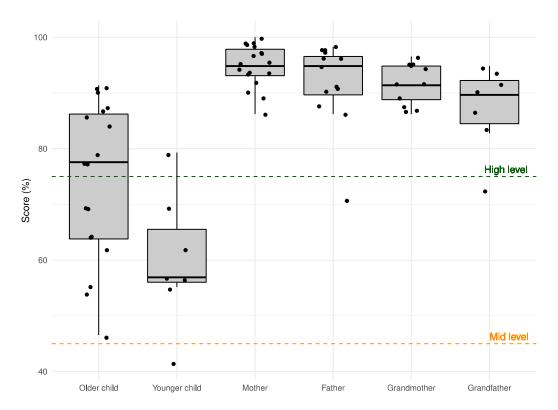


Figure 1. Proficiency test scores in Russian: boxplots of family members' performance (levels: 100–75% high; 74–45% mid; under 44% mid-low).

For the children, proficiency outcomes varied considerably, which reflects the variability seen in their self-assessment data. Their scores were predominantly divided between Mid (Level 3) and High (Level 4) proficiency levels, with a single exception of one child falling into the Low-mid category (Level 2). In families where two children were included in the data collection, younger children generally scored lower than their older siblings, with one family as an exception.

The statistical analysis via the Dunn post hoc test with Bonferroni correction yielded a significant divergence in Russian language proficiency across the three generations in the families. Notably, the analysis revealed that disparities in proficiency are especially prominent when comparing the children to the older generations (see Table 4). The differences are particularly striking when both older and younger children are compared to the mothers, indicating a statistically significant divergence in proficiency levels. Moreover, children also show significant differences in comparison to their fathers and grandmothers, highlighting the special position of the children in the linguistic network of the families. Although grandparents scored slightly lower on the test, their results are not statistically significant and do not differ from those of the parents. Contrary to our expectations, the data did not indicate that parents performed lower than grandparents. Only the children's generation exhibits a significant difference in proficiency levels.

Additionally, we conducted a multiple regression analysis to evaluate the influence of self-assessments of proficiency in Russian and German on the scores of the language proficiency test (Table 5). This analysis demonstrates that self-assessments of literacy skills, notably in Russian and, to a somewhat lesser extent, in German, are strong predictors of test performance. Specifically, higher self-assessments in literacy skills regarding reading and writing are associated with better test scores. This result confirms the findings of previous studies, which investigated the relationship between vocabulary development and literacy skills in bilingual individuals and found that the growth of vocabulary and literacy skills are closely correlated (e.g., Hammer and Miccio 2006; Howard et al. 2014; Limbird et al. 2014; Rhys and Thomas 2013; Zhang and Koda 2018).

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| Table 4. Compar | rison of proficiency test score | es by family members | s using Dunn post hoc tes | st (Bonfer- |
|-------------------|---------------------------------|----------------------|---------------------------|-------------|
| roni correction). | | | | |

| | Father | Grandfather | Grandmother | Mother | Older Child |
|------------------|--|-----------------|--------------------|--------------------|----------------|
| Grandfather | 1.473 ¹ 1.000 ² | | | | |
| Grandmother | 0.627 1.000 | -0.897 1.000 | | | |
| Mother | -0.697 1.000 | -2.119 0.255 | -1.333 1.000 | | |
| Older child | 3.917 0.0007 *** ³ | 1.651 0.741 | 3.055 0.017 * | 5.038 0.000 *** | |
| Younger Child | 4.103 0.0003 *** | 2.306 0.158 | 3.447 0.0043 ** | 4.887 0.000 *** | 1.117 1.000 |

 $[\]overline{1}$ Numeric values indicate the Z-value for each comparison. 2 The corresponding p-values are provided below each Z-value, with asterisks denoting their significance after Bonferroni correction. $^3*p < 0.05; **p < 0.01; ***p < 0.001.$

Table 5. Regression analysis summary: impact of self-assessed proficiency in Russian and German on proficiency test scores.

| Predictor | Coefficient | Std. Error | t-Value | <i>p-</i> Value |
|--|-------------|------------|---------|-----------------|
| Self-Assess Literacy Skills (Russian) | 6.716 | 1.971 | 3.407 | 0.0011 ** 1 |
| Self-Assess Literacy Skills (German) | 4.946 | 2.586 | 1.913 | 0.0599 |
| Self-Assess Oral Skills (Russian) | 4.249 | 3.407 | 1.247 | 0.217 |
| Self-Assess Oral Skills (German) | -4.353 | 2.713 | -1.604 | 0.1132 |

^{1 **} p < 0.01.

A notable finding was that children rated their literacy skills lower than adults; they often described their abilities as "very bad" or "satisfactory", in contrast to adults, who generally assessed them as "good" or "very good". This difference prompted us to conduct a more fine-grained multiple regression analysis focusing solely on the children's data. It turned out that the self-assessments of literacy skills in German (coefficient = 15.56; p-value = 0.032) significantly affected the test scores of the children.

Our analysis thus revealed that literacy skills, both in Russian and German (particularly among children), significantly predicted the results of the language proficiency test.

3.3. Language Practices

To gain a more comprehensive and objective understanding of language practices in the families, we incorporated responses from all family members regarding their language choices when communicating with others. As stated above, participants were asked to designate the language(s) they use when communicating with other family members and to attribute a value to their language preferences ranging on a scale from 1 (exclusively German) to 5 (exclusively Russian). The questions targeted not just the languages the family members actively choose for communicating with others but also how they are addressed themselves by others in the family. Furthermore, we asked them to designate the language(s) other family members use when talking to each other. For example, children were asked about their personal language choices when interacting with siblings, parents, and grandparents. Additionally, we gathered data on their perception of how parents communicate with each other and with the grandparents. Table 6 presents the average language preferences by generations.

 $2.48^{\ 1}$

(SD = 0.87)

3.91

(SD = 0.61)

4.63

(SD = 0.52)

| only Russian). | | | |
|----------------|----------|--------------------|--------------|
| Generation | | Communication with | 1 |
| Generation | Children | Parents | Grandparents |

3.57

(SD = 0.88)

 $4.4^{\ 2}$

(SD = 0.56)

4.76

(SD = 0.36)

4.41

(SD = 0.85)

4.76

(SD = 0.38) 4.77^3

(SD = 0.41)

Table 6. Average language usage in family interactions on a scale from 1 to 5 (1 = only German; 5 = only Russian).

Children

Parents

Grandparents

Children exhibit a wide range of language use when communicating with siblings, parents, and grandparents. Their preferences show an overall gradual increase in the use of Russian with the older generations, starting from a balanced mix of German and Russian with siblings (M = 2.48) to a stronger preference for Russian with grandparents (M = 4.41). The variability in their language practices suggests that they do not have firm preferences for single languages, even when communicating with the same family member. Similar findings were reported in Protassova's study (Protassova 2018), where children exhibited a higher frequency of majority language usage in their daily interactions compared to their parents, resulting in a higher index of majority language use among children.

Parents play a crucial role as a linguistic bridge between the generations. They exhibit a pronounced preference for Russian in their interactions with other family members. Notably, this preference becomes stronger in conversations with their spouses (M=4.4), suggesting a shared linguistic space in the nuclear family unit. Based on their responses to survey questions about language use with other family members, it became clear that most families support Russian language use by increasing its presence and apply the "principle of maximal engagement with the minority language" (De Houwer 2007; Yamamoto 2001). Three families seem to prefer the one parent one language (OPOL) strategy (Okita 2002), since the mothers stated that they consistently communicate with the child in Russian, whereas the Russian-speaking fathers use German. Two families promote flexible use of both languages, including translanguaging at home (Alvarez 2014), i.e., the parents conceded that they mix both languages and use them to an equal degree.

Grandparents exhibit the strongest preference for Russian across all their family interactions, with minimal variation in language choice. Whether communicating with their grandchildren, children, or spouse, the scores suggest an overwhelming use of Russian. This stable language preference among the oldest generation highlights their significant role in fostering Russian as the primary medium of communication in the family.

To sum up, a clear generational pattern emerges from our data, ranging from the children's mixed use of German and Russian to the grandparents' strong preference for Russian. As a next step in the analysis, we looked at the transnational aspect of language maintenance. Specifically, we explored whether children maintain contact with Russian beyond Germany's borders. In total, 76% of the children confirmed contact with Russian-speaking friends and relatives outside Germany, spanning from grandparents to second-degree relatives. This underlines the role of transnational relationships as a factor that adds to the motivation for maintaining the Russian language in the countries of residence. Table 7 illustrates the average frequency of interaction with these individuals, depicted on a scale from 0 (never) to 5 (once a week).

Phone calls are the most frequent medium of communication with family members and friends outside Germany, yet the high standard deviation highlights significant differences in how often families engage in these calls. Video calls, facilitated by platforms such as Skype or Zoom, are less common, and their usage varies considerably across families. Surprisingly, emails and chat applications like WhatsApp or Viber are even less frequent, showcasing the limited role of these digital communication tools. Visits to and from family

¹ Communication with siblings. ^{2,3} Communication with spouses.

members residing outside Germany are exceptionally infrequent, highlighting the logistical and financial obstacles leading to scarce direct face-to-face encounters in the context of these international family relationships.

Table 7. Average frequency of contact between children and Russian-speaking friends and relatives in other countries on a scale from 0 to 5 (0 = never; 1 = less than once a year; 2 = once a year; 3 = several times a year; 4 = once a month; 5 = once a week).

| Contact | Average Frequency |
|-------------------------------------|-------------------|
| Phone Calls | 2.16 (SD = 1.97) |
| Video Calls (Skype, Zoom, etc.) | 1.48 (SD = 1.76) |
| Emails/Chat (WhatsApp, Viber, etc.) | 1.20 (SD = 1.76) |
| Visiting Them | 0.56 (SD = 0.65) |
| Being Visited | 0.40 (SD = 0.50) |

Our analysis of media consumption activities, including reading, internet browsing, and watching TV and movies, uncovered distinct language preferences among children, as shown in Table 8. The responses, using a predefined scale from "never" to "very often", show a pronounced preference for German across all media. While reading and internet browsing are more frequently done in German, watching TV and films exhibits a more balanced distribution. In this domain, the frequency of using Russian is clearly higher than in reading or browsing the internet, though German still remains the more frequently chosen language. These results underscore a clear trend towards German for media consumption among children, with some individual differences in the frequency of the use of Russian, as indicated by the standard deviations.

Table 8. Reading, browsing the internet and watching TV or movies by children in Russian and German on a scale from 0 to 4 (0 = never; 4 = very often).

| Activity | Russian | German |
|--------------------------|-------------|-------------|
| Donding Pools | 1.12 | 2.48 |
| Reading Books | (SD = 1.17) | (SD = 0.96) |
| Progressing the Internet | 0.84 | 2.48 |
| Browsing the Internet | (SD = 1.11) | (SD = 1.23) |
| Watching TV Maying | 1.96 | 2.4 |
| Watching TV, Movies | (SD = 1.21) | (SD = 1) |

The multiple regression analysis revealed no significant impact on the overall language proficiency scores, yet it showed a notable trend concerning the role of reading in Russian. Children who read more frequently in Russian exhibited a tendency towards increased language proficiency scores (coefficient = 6.98; p = 0.066). Although not statistically significant, this trend suggests a positive correlation between regular reading in Russian and higher language proficiency among children, highlighting the potential benefits of reading for language development.

For adults, the analysis of media consumption activities—rated on a scale from 1 (only in German) to 5 (only in Russian) (see Table 9)—reveals significant findings for parents but not for grandparents regarding reading habits. Specifically, parents who read more frequently in Russian, as opposed to German, show higher scores in the language proficiency test (coefficient = 1.675; p = 0.03).

To sum up, family communication primarily takes place in Russian. This holds even for the children, except when they interact with siblings, where both languages are used. Most children maintain contact with Russian-speaking relatives and friends outside Germany, particularly through phone calls. The multiple regression analyses were unable to prove effects of language choice and maintenance of transnational contacts on the proficiency test scores of the children. While children show a preference for German in media consumption,

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frequent reading in Russian tends to improve their Russian proficiency. Furthermore, reading in Russian also has a significant effect on the proficiency test scores of the parents.

Table 9. Reading, browsing the internet and watching TV, movies by (grand)parents on a scale from 0 to 5 (0 = no use of the media; 1 = only German; 5 = only Russian).

| Generation | Reading Books | Browsing the Internet | Watching TV, Movies |
|--------------|---------------|-----------------------|---------------------|
| Damonto | 2.91 | 2.81 | 3.34 |
| Parents | (SD = 1.35) | (SD = 0.79) | (SD = 0.85) |
| Crandnaranta | 4.42 | 3.52 | 4.11 |
| Grandparents | (SD = 0.61) | (SD = 1.38) | (SD = 0.81) |

3.4. Language Management: Russian Language Education

Schwartz (2008) emphasized the pivotal role that both formal and informal educational settings play in fostering proficiency in the home language. The involvement of the children in Russian language classes, as reported by them and their parents, covers a broad spectrum. Typically, the children in our study participate in Russian language lessons for about 1 to 2 h each week, yet there is significant variation in how regularly they attend these lessons and in the overall length of their involvement, ranging from those who have never attended Russian lessons to those who have been engaged in such educational activities consistently for as long as 12 years (Mean = 3.6, SD = 3.91).

Böhmer (2016) shows in her study that bilingual children who were exposed to Russian literacy instruction perform better in both of their languages than those who did not have this kind of structured input. Through linear regression analysis, we assessed the impact of Russian lesson attendance on language proficiency scores, which yielded a positive correlation: Each year spent in Russian classes correlates with a 1.71-point score increase (p = 0.024), signifying a substantial benefit of prolonged instructed input for developing language skills (see Figure 2). However, this factor accounts for only about 20% of score variation (R-squared = 0.2025), indicating that other influential factors are at play. Thus, our findings emphasize an important but not decisive role of Russian language instruction for boosting proficiency in the heritage language. Moreover, the analysis reveals that age does not have a significant impact on scores, indicating the consistent effectiveness of Russian lessons across different age groups.

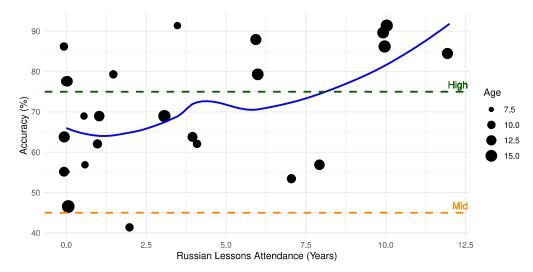


Figure 2. Impact of Russian lesson attendance on cloze test score: linear regression (blue line) and LOESS analysis, age indicated by size of the dots. The blue line provides a summary of the linear relationship between years of Russian lessons and test accuracy.

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3.5. Language Ideologies

Language ideologies were tested by presenting statements to our participants regarding attitudes towards the Russian language and culture, which they had to evaluate by using a Likert scale from 1 ("completely disagree") to 4 ("completely agree"). Overall, family members express a positive attitude towards the Russian language and culture across the board (see Table 10). However, the children's views differ from those of the adults, especially regarding the role of Russian in preserving the literary heritage (Statement 2), attitudes towards literacy (Statement 7), and Russian language teaching in German schools (Statement 8). As noted in the previous sections, only a subsample of the children in our study regularly read in Russian and evaluate their literacy skills as high. Interestingly, one-third of the grandparents (31,5%) do not perceive any instrumental value in Russian for professional purposes and believe that its use negatively impacts German language skills.

Table 10. Language attitudes by generation on a Likert scale from 1 to 4 (1 = completely disagree; 4 = completely agree).

| Statement | Children | Parents | Grandparents |
|--|---------------------|---------------------|---------------------|
| (1) Knowledge of the Russian language can be used for professional purposes/at work. | - | 3.18 (SD = 0.93) | 2.89 (SD = 0.99) |
| (2) The Russian language gives access to Russian culture and literature. | 2.92 (SD = 0.81) | 3.90 (SD = 0.3) | 4 (SD = 0) |
| (3) I believe that preserving the culture and language of the country of origin makes sense. | - | 3.87 (SD = 0.34) | 3.73 (SD = 0.73) |
| (4) Proficiency in Russian does not negatively affect proficiency in German. | 3.36 (SD = 0.7) | 3.28 (SD = 0.92) | 2.78 (SD = 1.13) |
| (5) I love listening to Russian speech. | 3.56 (SD = 0.58) | 3.53 (SD = 0.62) | 3.79 (SD = 0.42) |
| (6) I love speaking Russian. | 3.32 (SD = 0.69) | 3.75 (SD = 0.44) | 4 (SD = 0) |
| (7) I love reading and writing in Russian. | 2.64 (SD = 0.98) | 3.43 (SD = 0.67) | 3.84 (SD = 0.50) |
| (8) Russian should be taught as a school subject in Germany. | 2.56 (SD = 0.92) | 3.03 (SD = 0.86) | 3.21 (SD = 0.79) |
| (9) When I have children, I want them first of all to learn the Russian language. | 3.04 (SD = 1.02) | - | - |

When analyzing the correlation between the expressed attitudes towards the Russian language and culture and the scores from the proficiency test, we obtained some interesting findings for the group of the parents, which reached significance in statistical testing. Specifically, statement 3, which expresses a belief in the importance of preserving the culture and language of the country of origin, positively influences parents' language proficiency scores (coefficient = 8.175; p = 0.017). Similarly, statement 7, indicating positive feelings towards reading and writing in Russian, also positively impacts their proficiency scores (coefficient = 3.813; p = 0.07). Although not significant, the trend is evident. These findings underscore the importance of favorable attitudes towards literacy and the preservation of Russian culture and language for maintaining language proficiency in adults.

Statement 9 (Table 10) was presented only to the children in order to receive information on whether they are willing to prioritize Russian language learning when raising their own children. We received various responses concerning this item. While the regression analysis did not reveal statistically significant findings, there appears to be a trend suggesting a potential link between children's favorable disposition towards transmitting the heritage language to the following generation and their proficiency test scores (coefficient = 8.764; p = 0.072).

4. Discussion

4.1. Perspectives on Russian Language Use and Maintenance in the Three Generations (RQ1)

Our study revealed commonalities and differences in language practices and preferences across the three generations: While overall the language of family interactions in the investigated families is mostly Russian, it is first and foremost the grandparents, who act as a stronghold for the preservation of Russian as a home language. They unambiguously identify Russian as their native language and consider it their stronger language (Table 2). Although they outperform their children (=the parent generation) in the self-assessments regarding literacy and oral skills in Russian, the experimental testing of proficiency in Russian revealed, on average, lower scores compared to the parents' group (Figure 1), which, however, might be an effect of more recent experiences regarding (language) testing in case of the parents compared to the grandparents. The grandparents use Russian for addressing all other family members and are addressed themselves by others predominantly in Russian (Table 6). They place a high value on maintaining Russian, because it secures access to Russian literature and culture, and show slightly higher emotional attachment to Russian compared to the other groups in our study. Last, but not least, they call for more institutional support of the Russian language in German educational settings by indicating that they would appreciate if Russian is regularly taught as a school subject in German schools (see Table 10).

Earlier in the paper, we compared the role of parents to a bridge between the two languages and cultures. They predominantly consider Russian to be their stronger and native language, although almost one-quarter of the parent sample state that they perceive both languages, Russian and German, as their native languages (Table 2). As regards language preferences, they prefer Russian when talking to their spouses and their parents (=the grandparent generation), but when communicating with their children, they also show tendencies of accommodating to the language choices of their children, which results in a higher share of German when addressing their children compared to the grandparents (Table 6). Like the grandparents, they attribute a high emotional and cultural value to Russian but even consider it to be potentially beneficial for job purposes, which is different from the grandparents.

The children in our sample exhibit a shift regarding language dominance and preferences, which is quite characteristic for heritage speakers: More than half of them consider both Russian and German their native languages, while just one-third attributes this status exclusively to Russian (Table 2). According to their self-perception, German is clearly their dominant or stronger language, which is certainly linked to the weak assessment of their literacy skills in Russian (Table 3). Nevertheless, they state that they predominantly use Russian when talking to their parents and grandparents, whereas German is the preferred language when communicating with siblings. In general, they exhibit a higher degree of dual language use in the family than the other family members (Table 6). Russian has a high emotional value for the children (apart from reading and writing), but they perceive more problems in dual language development than the other two groups. This might be one factor that contributes to the fact that their commitment to transmit Russian to their own children is not at the ceiling and shows considerable interindividual variation. Furthermore, they do not see the need for more institutional support of the Russian language in the German educational system (Table 10).

To sum up, a notable generational shift from grandparents to children can be observed in the investigated families. This observed shift regarding language proficiency and use points to the evolving sociolinguistic dynamics in immigrant families. This reflects broader trends in language shift and maintenance in immigrant communities, which have often been described by resorting to the 'cascade-model' proposed originally by Gonzo and Saltarelli (1983) and developed further in recent studies on heritage language transmission (cf., e.g., Bayram et al. 2019). These findings underscore the need for supportive policies that encourage multilingualism and cultural diversity.

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4.2. Impact of Family Language Policies on Proficiency in Russian (RQ2)

Not surprisingly, the proficiency in Russian among the children was significantly different from that of the parents and grandparents. Interestingly, the parents' generation scored slightly higher on the Russian proficiency test than the grandparents (M = 93.55, SD = 5.71 vs. M = 89.94, SD = 5.86, respectively), but nearly all parents and grandparents showed a high level of proficiency in Russian. The children's results on the Russian proficiency test showed a wide range of scores (M = 70.21, SD = 14.83), which is a characteristic trait of heritage speakers who are commonly divided into basilectal, mesolectal and acrolectal speakers according to their differences from the baseline (see Polinsky and Kagan 2007). To address the question, why some children become active and proficient users of multiple languages from an early age, while others do not, despite similar exposure (De Houwer 1999), we explored the impact of several components of FLP, specifically (i) language preferences in family communication, (ii) contact with Russian speakers outside Germany, and (iii) media consumption on differences in proficiency scores across generations. The statistical analyses performed for this study did not reveal a clear effect of these factors, especially the proportion of Russian or German use in family communication, on the proficiency levels of the children. Most families seem to employ a strategy of maximizing Russian language input (De Houwer 2007; Yamamoto 2001) and generally favor Russian as the main language for family conversations. Additionally, transnational contacts are maintained in most of the families, although they seem to be not quite frequent. The same applies to language choices for media consumption, where Russian seems to be favored only for watching TV and films, which again is related to the low degree of literacy skills among the children in this study. Parents who predominantly read in Russian rather than German tend to achieve statistically significant higher scores on language proficiency tests. Similarly, children who engage more frequently in reading Russian demonstrate notable improvements in their language proficiency scores, pointing towards a trend rather than a statistical significance. This leads to our last research question.

4.3. Relevance of Literacy Skills and Heritage Language Instruction for Language Maintenance (RQ3)

Given recent research highlighting a crucial connection between literacy skills and language maintenance (Hammer and Miccio 2006; Howard et al. 2014; Limbird et al. 2014; Rhys and Thomas 2013; Zhang and Koda 2018), we included this aspect in our research design. Similar to the mentioned studies, we found that higher self-reported literacy skills regarding reading and writing correlated with increased scores in the proficiency test. Interestingly, not only literacy skills in Russian, but also in German, affects Russian proficiency scores, especially in children. This finding is in line with previous studies investigating the effect of literacy skills on bilingual language development (cf., inter alia, Böhmer 2016 for heritage speakers of Russian in Germany). One possible explanation is that strong literacy skills in any language can enhance overall cognitive and linguistic abilities, which, in turn, support proficiency in other languages as learners have developed higher metalinguistic awareness and/or are able to transfer structures from one language to the other (cf. the famous Interdependence Hypothesis proposed by Cummins 1991). Regarding the effect of heritage language instruction, we found a positive correlation between the duration of attendance of Russian language classes and enhanced general proficiency in Russian. This testifies to the vital role of formal language instruction in developing heritage language skills, with duration of instructed learning being a key factor, as has been stated already in previous studies (Brehmer and Mehlhorn 2018). This highlights the critical importance of integrating structured input from Russian language classes into the upbringing of bilingual children. Such prolonged instructed learning not only enhances their proficiency in the heritage language but also promotes the development of a balanced bilingualism. These insights have significant implications for educational policy and curriculum design, advocating for the inclusion of heritage language programs in the educational system to nurture bilingual or multilingual development from an early age.

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5. Conclusions and Outlook

This study was able to confirm many findings of previous studies dealing with Russianspeaking families in Germany and the sociolinguistic situation of Russian as a heritage language in Germany. The result that Russian-speaking immigrants in Germany exhibit a high degree of loyalty towards their home language and try to maintain its dominant position as the language of family conversations has been indeed noted before (cf., e.g., already Achterberg 2005). The fact that heritage speakers who were born in the host country are the locus of an ongoing language shift with heightened dual language use is also a commonplace in research on heritage languages, as is the high degree of interindividual variability regarding their proficiency in the heritage language. However, in the case of the population under focus, Russian stays an integral part of their identity with first of all emotional values attached to it. Representatives of all generations agree in having a very positive attitude towards Russian, they love to speak it and listen to it, and it is an important means to stay in contact with relatives and friends in Russian-speaking countries (see Table 10). The high degree of emotional identification with Russian and its role in identity building is also evident from the interviews that we conducted with every respondent, which will be the topic of a separate study. However, grandparents, like parents and children, primarily emphasize the value of Russian for intrafamilial communication and its role as a bridge to the cultural roots of their ancestors rather than for future professional opportunities. This rather 'backward' orientation confirms the findings of previous studies (see, e.g., Laleko 2013; Anstatt 2017). Although this study could not confirm a significant impact of the investigated components of FLP on the Russian proficiency scores of the family members (especially the children, as they show the highest degree of interindividual variability, cf. Paradis 2023), we were able to determine the important role of the grandparents as a stronghold for the maintenance of Russian as the language of family conversations. The inclusion of grandparents as representatives of the extended family in studies on FLP goes beyond the scope of most of the studies in the field. Our results, however, reveal that they perform an important function in shaping the selected aspects of FLP in the families of our sample. Thus, an important conclusion to draw from our study is the fact that future sociolinguistic studies should definitely pay attention to language practices that go beyond the nuclear family and also include grandparents as important agents contributing to FLP. The extent of their influence on FLP is certainly contingent upon various factors, primarily the frequency of interactions between grandparents and their children and grandchildren, which is influenced by their place of residence (cf. Braun 2012). More research should be devoted to the impact of these factors on the role of grandparents in shaping FLP. Overall, the role of grandparents should, in general, not be underestimated.

An obvious limitation of this study lies in the fact that we focused on single aspects of FLP, to put it more precisely: on aspects of explicit or overt FLP (e.g., attendance of heritage language classes, language choices for communicating with other family members, values attached to Russian). Future studies should also include aspects of implicit or covert language practices and language management besides questions of literacy teaching and practices in the families, which, however, calls for other ways of data collection beyond questionnaires. Observations of real in situ practices and management strategies in family conversations allow for a more inclusive approach encompassing both explicit and implicit aspects of FLP. Furthermore, longitudinal studies on the development of FLP in the same family over time and the factors that decide about the direction of this development are badly needed, as well as studies focusing on its long-term impact on language proficiency and cultural identity of family members (see, however, Meng and Protassova 2017 for such an approach). Despite the existence of numerous studies on the Russian-speaking community in Germany, including sociolinguistic ones, there still remains much to be done.

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using both descriptive and inferential statistics. She took part in collecting the data and contributed to the materials (questionnaire). B.B. was responsible for the overall project design and also contributed substantially to the materials used for data gathering. Furthermore, he introduced smaller text passages and critically revised the whole text before publication. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement: This study was conducted in accordance with the Declaration of Helsinki, and approved by the Institutional Review Board (Ethics Commission) of the University of Konstanz (IRB Statement 22/2021).

Informed Consent Statement: Informed consent was obtained from all participants involved in the study.

Data Availability Statement: The datasets generated during the current study were collected using the SoSciSurvey platform. These datasets are publicly available in the Zenodo repository at https://doi.org/10.5281/zenodo.13880042. Researchers interested in using the data are encouraged to follow the repository guidelines for access and cite this paper in any resulting publications.

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Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A Cloze Deletion Test—The MC Format (English Below)

Мыши умеют петь. Поют, (1) так/или/как правило самцы, в надежде (2) завоевать/обладать/раскрыть симпатию самок. Это еще (3) в/на/с 2005 году обнаружили ученые (4) на/из/по Университета Вашингтона, доказав, что (5) мелодичным/мелодичные/мелодичных звуки, которые издают влюбленные (6) мыши/пары/ученые, отнюдь не случайные. Из (7) этих/тех/таких звуков сотканы узнаваемые музыкальные (8) мелодии/композиции/записи. К сожалению, мышиные песни находятся (9) в/на/с той части ди апазона, который (10) не/но/ни доступен для восприятия людьми. (11) Наши/их/ваши "произведения" можно уловить только (12) с/без/о помощью специальных приборов.

Мыши (13) пищат/зовут/поют очень старательно—не менее (14) тихо/плавно/ затейливо и разнообразно, чем певчие (15) птицы/звери/животные. Иногда кажется, что они (16) будут/могут/учатся почти осмысленно менять высоту (17) и/а/о продо лжительность издаваемых (18) произведений/сочинений/звуков. Через 7 лет в результате (19) анализа/исследования/расследования, которое провели в 2012 (20) год/году/годом американские ученые из Университета Дюка (21) в/на/с Северной Каролине обнаружились: мыши (22) способны/готовы/уверены еще обучаться пению, запоминать (23) и/а/о воспроизводить новые подслушанные мелодии, (24) и/а/о не только свои собственные (25) песни/стихи/рассказы.

Мыши могут даже петь хором. (26) Среди/Вне/Из приматов таким талантом обладает (27) иногда/лишь/так же человек. Ученые собрали несколько мышиных самцов в (28) одну/вторую/дорогую клетку, рядом—в другую—(29) поставили/посадили/положили самку и слушали, что (30) он/она/они ей споют. Через некоторое (31) место/время/расстояние самцы словно бы спевались (32) и/а/о начинали распевать хором. При (33) этом/этого/этому, основной мелодией становилась та, (34) некоторую/которую/которыми предлагал более сильный самец.

(35) Чуть/очень/совсем раньше японские ученые из (36) музея/школы/рынка экспериментальных технологий Университета Осаки (37) сообщали/сообщал/сообщили о похожем выдающемся открытии (38) в/из/к их проекте "Эволюция мыши". (39) Иностранцы/Ученые/Учителя настолько продвинули группу мышей (40) на/вдоль/по эволюционной лестнице, что они (41) и/а/у них запели как птички. Началось (42)

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всё/весь/вся с одной мыши, у (43) которой/которую/которая обнаружились вокальные (44) ноты/инструменты/способности—рассказывает главный руководитель экспериментов. (45) Теперь/Тогда/Скоро у нас целый хор— (46) почти/около/наверное сто поющих мышей.

Поющая мышь (47) получился/получилась/получилось после того, как ее предкам был (48) выдан/задан/дан ген, который отвечает у людей (49) за/от/из развитие речи. Потом (50) исследователи/родители/врачи дали этим генетически модифицированным (51) мышам/мышами/мышах свободно размножаться—то есть, (52) двигаться/двигался/двигать по эволюционной лестнице. И наконец, (53) в/на/с один прекрасный день" на свет (54) появится/появилась/появляется мышь, которая запела. Эксперименты (55) привлекают/преследуют/предлагают еще одну цель. Ученые (56) были/будут/будущие пытаться добраться до истоков возникновения речи. И (57) в/о/на мышах, по сути, моделируют (58) этот/тот/то процесс.

English Translation (without blanks):

Mice can sing. As a rule, male mice sing in hopes of being favored by females. This was discovered back in 2005 by researchers from the University of Washington, who proved that the melodious sounds produced by mice are indeed music-like, recognizable compositions. Sadly, the songs are produced at frequencies which cannot be perceived by human ear. The songs of mice can only be registered using special equipment.

Mice are elaborate singers. They sing as intricately as birds. In other words, they seem to have control over the pitch and length of the produced sounds. Seven years later after the original discovery, research conducted in 2012 by American scientists from Duke University in North Carolina showed that mice can also be taught how to sing and have the ability to memorize and reproduce melodies produced by others.

They can even sing as a group. In the animal world, such talent is usually considered to be found among humans only. Scientists placed several male mice in one cage, placed a female in a cage nearby and listened. After some time, males were singing as a group, in unison. At the same time, the melody produced by the strongest male was used as the main tune during the group singing.

A bit earlier, researchers from the University of Osaka in Japan reported a similar remarkable discovery in a project called "The Evolution of Mice". The team was able to advance the singing abilities of mice such that they began singing like birds. "It all began with one mouse that demonstrated signing abilities."-shares the lead researcher. "Now we have a large group of singing mice—about a hundred of them".

A singing mouse was born after researchers gave its ancestors a gene which is responsible for speech abilities in humans. The genetically modified mice were allowed to procreate freely, and therefore, to evolve. Finally, one day, a singing mouse was born. Researchers pursue one other goal by conducting experiments with mice. They search for origins of speech abilities in humans and use mice to model the speech evolution process.

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