



**THE CASE OF CASE: A morphological investigation  
of Russian heritage speakers in the UK**

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## **DEDICATIONS**

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## **ABSTRACT**

With the field of heritage language study only emerging in linguistics in the last few decades, Russian as a heritage language spoken in the UK remains an understudied area. In the present study, we aimed to investigate noun case inflections of 10–13-year-old children and adults residing in the UK from birth or early childhood and speaking Russian with their families at home from birth. Testing was done using a sentence translation task, a type of task not used previously in the field, and compared against age-matched monolingual controls. A background questionnaire was also administered to gather information about the way participants use their dominant and heritage languages in their household, family, friends, and entertainment. Our findings show that the case performance of heritage speakers significantly differs from age-matched controls, and worsens from the younger group to the older, suggesting a deterioration in the case system as the speaker moves away from their family and community upon transitioning into adulthood. These findings, however, do not entirely support earlier data from similar studies completed in the US and present the UK as a new underexplored playing field for future heritage language studies.

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## **1. INTRODUCTION**

### **1.1 Why heritage languages?**

In the field of linguistics, it has been evident for a long time that the study of languages has to go beyond monolingualism, and multilingualism has been investigated for decades if not centuries. And within the specific area of bilingualism, certain smaller areas begin to emerge in order to allow for a more detailed examination of how exactly different languages coexist and develop in a single brain in a variety of contexts. The acquisition of heritage languages is one such field, pioneered in the late 20<sup>th</sup> century and the start of the 21<sup>st</sup> century. The heritage language, an L1 but not quite the same as that of a monolingual, or perhaps an L2, yet still acquired naturalistically rather than in the classroom and intrinsically linked with a speaker's family and native homeland, is, according to Montrul and Polinsky (2021), an important missing step in the study of monolingualism, bilingualism, L1 acquisition and attrition, and L2 learning. In Polinsky's view, the heritage language is gradually replaced by the dominant language, resulting in incomplete or interrupted acquisition of the former (2008: 1-2). While the term "incomplete acquisition" has since been regarded as potentially problematic as it denies a heritage grammar its potential regularity and functionality, it is evident in the field that heritage speakers are an extremely valuable resource for acquisition research. The heritage language undergoes several processes in a unique combination, including divergent attainment, innovation, transfer from the dominant language and attrition (Montrul and Polinsky 2021:18). And yet, researchers in the field continue to note the "systematicity of the system that emerges under incomplete acquisition" (Kagan and Dillon 2003), stressing that the resulting grammar is functional and still possesses a richness worth investigating. In this study, the case system in the Russian language becomes the playing field sufficient in its richness to look at how much heritage grammars diverge from standard and how much of this system is preserved and intact. This knowledge, which we have only begun to gather fairly recently, is essential not only

for helping heritage speakers explore their identity and conserve their unique communication skills, but also for understanding bilingualism in general.

## **1.2 Structure of the Dissertation**

This dissertation contains six sections: Section 1, which serves as an introduction to the study, gives the basic background information on the topic, outlines the structure of the work and the motivation behind conducting such research; Section 2, which gives a review of the relevant theoretical background and research that has already been completed in the field of heritage languages in general, Russian as a heritage language and Russians in the UK in particular, highlights the gaps in this research and weaves them into the warrant for the present work; Section 3, which demonstrates the research questions and the methodology that was selected for this study, comprising information about participants, stimuli, the task and the procedure of the study, as well as the transcription procedure; Section 4, which presents results of the study based on data collected from 47 participants across Groups 1-4 in remote and in-person testing sessions; Section 5, which provides a discussion of the results presented in the previous section in the context of previous research presented in Section 2; and Section 6, which summarises the findings obtained in the present study, describes the advantages and limitations of the selected methodology and provides possible directions for future work

## **2. LITERATURE REVIEW**

### **2.1 DEFINITIONS**

Rothman provides a widely recognised definition of a heritage language from a more social perspective as ‘a language spoken at home or otherwise readily available to young children <...> [that is] not the dominant language of the larger (national) society’ (2009: 156). In another society-based view, Benmamoun refers to heritage language speakers as typically being ‘second-generation immigrants who are born and raised in societies where their parents’ first language is the minority language’ (2021: 376). This second definition narrows the heritage language context to a more specific demographic and regards living in the dominant language society from birth as a necessary criterion.

However, other existing definitions are broader: most research involving heritage speakers also focuses on those who moved to the dominant language society 3-6 years after birth (Polinsky 2008) while occasional works set the cut off as high as 10 years (Isurin & Ivanova-Sullivan 2008). Oftentimes, the age of onset of bilingualism restrictions are omitted all together, with Kondo-Brown (2002) defining a Japanese heritage speaker as one that has at least one Japanese-speaking parent for the purposes of her study of Japanese second-language writing. While this ambiguity introduces significant variation in the populations between studies, it highlights an important characteristic of heritage language acquisition that distinguishes heritage speakers from L2 speakers: the former begin acquiring the language in the home, while the latter are more often introduced to it in a classroom setting or from other types of sources located outside of the home (The UCLA Steering Committee 2000: 339).

## **2.2 ACQUISITION PROCESS**

When we try to define heritage language speakers in terms of their acquisition process, one of the key features outlined in the existing literature is the so-called “naturalistic” element. Rothman (2009: 156) states: “[An] individual qualifies as a heritage speaker if and only if he or she has some command of the heritage language acquired naturalistically ... although it is equally expected that such competence will differ from that of native monolinguals of comparable age”. From a linguistic standpoint, then, an individual that only learns the language in the classroom, without acquiring some in the home like a monolingual would, cannot be regarded as a heritage speaker even if they have personal ties to the language through family history. This, again, sets heritage speakers qualitatively apart from L2 learners.

Polinsky (2018: 4) believes in the importance of defining heritage speakers as “unbalanced bilinguals whose heritage (weaker) language is their first language”, highlighting the idea that a heritage language should be viewed as an L1. Montrul, Foote and Perpiñan (2008) agree, stating that a heritage language has signatures of an L1. On the other hand, there is still a possibility that a heritage speaker, if they are born in the dominant language environment, starts out as a simultaneous bilingual, with the asymmetry emerging later on – in this case, there might not be a clear L1 as such, yet the heritage language is still not an L2. Although in theory, then, a heritage language can be considered an L1 or one of several L1s that weakens over time, heritage speakers are often found to demonstrate linguistic features of both L1 and L2 in their home language, making this group of speakers particularly unique and raising the need for an analysis separate from ordinary monolingual and bilingual speakers.

## **2.3 FACTORS OF DIVERGENCE**

### **2.3.1 Acquisition outcomes**

In terms of the outcome of this acquisition process, the heritage language is usually expected to be, as Polinsky writes above, the “weaker” language. However, from the various definitions of heritage speakers and the different contexts in which they exist, it becomes apparent that heritage speakers as a group must be extremely diverse. Different heritage speakers arrive at different acquisition outcomes in what has been

referred to by Polinsky and Kagan (2007) as the heritage speaker continuum: from the so-called acrolectal speakers, whose heritage language is the closest to the language of the homeland, to basilectal speakers, who end up being the furthest from it, to mesolectal speakers, whose language lies somewhere in between (Polinsky 2018: 6). To this spectrum some would also add the so-called “over-hearers”, who can listen to and understand their heritage language but cannot speak it, but their inclusion in the “speaker” group is often questioned (Au and Romo 1997; Au and Oh 2005). In addition, some heritage speakers might return to the country where their home language is spoken later on in life, becoming “returnees” or “re-learners” (in the latter case, the language is learned in the classroom and is more of an L2) (Polinsky 2018: 7). Typically, such speakers become subjects of separate scientific investigation, while heritage language research more often focuses on those who remain in the dominant language environment.

### **2.3.2 Baseline**

Heritage speakers are often evaluated against monolinguals that live in the country where that language is dominant, or the so-called “homeland” (Isurin and Ivanova-Sullivan 2008; Polinsky 2008; Montrul, Foote and Perpiñan 2008; Lukyanchenko and Gor 2011; Goebel-Mahrle and Shin 2020). However, considering the monolingual standard as the baseline against which to evaluate heritage speakers does not take into account the specific input that they receive in the home. The parents or carers of such speakers might experience language attrition after living in a country with a different dominant language or speak a variety that differs from the monolingual standard in the first place. The presence of these factors means that the divergence of the acquisition outcome from the monolingual standard might not always be the result of incomplete/interrupted acquisition, but instead reflects the specific input that the child received. It has therefore been suggested that the baseline should be measured against the parents/carers of a specific speaker, who are often first-generation immigrants (Polinsky 2018: 11). Furthermore, a heritage speaker sometimes receives input not only from home, but also from other supportive sources, such as the local community and their schools. This is reflected in what Kagan calls the triad model of heritage language support, comprising family, community, and formal education (2005). As a result, analysing only the home language to create a baseline might still not be enough.

### **2.3.3 Language transfer**

In recent research, heritage speakers have often demonstrated signs of transfer from the dominant language. For example, Godson (2004) found difference in pronunciation of heritage Western Armenian vowels that appeared to be explained by transfer from English. In terms of syntax, Kim, Montrul and Yoon (2009) found evidence of English-like preferences in long-distance preferences in the binding of reflexives in heritage Korean. In morphosyntax, there is an example of Egyptian and Palestinian heritage speakers in the US studies by Albirini and Benmamoun (2014), who found transfer effects in broken plurals and dual morphology. On the other hand, there are some cases where changes cannot be attributed simply to language transfer: for example, upon comparing the comprehension of Russian relative clauses between monolingual and bilingual children and adult heritage speakers, Polinsky (2011) finds a significant negative difference between adults and the other two groups, but the evidence from word order shows that language transfer cannot be used as an explanation. It is important to consider other factors when studying heritage grammars, including the context of the present study, where the dominant language, English, does not possess a rich case system that the heritage Russian language does.

## **2.4 RUSSIAN AS A HERITAGE LANGUAGE**

### **2.4.1 Social context**

#### ***2.4.1.1 Recent history***

Today, significant populations of Russian speakers inhabit more than 30 countries around the world outside of what we refer to as the country of Russia. The history of the Russian language knows multiple waves of migration to and from traditionally Russian-speaking regions for various religious, political, and economic reasons, and it is outside the scope of this study to detail all of it. More specifically, in the 20<sup>th</sup> century researchers have identified 4 main waves of immigration out of Russian-speaking areas in the Russian Empire/the Soviet Union/Russian Federation (Andrews 1997, Zemskaia 2001): 1) old intelligentsia immigration after the Revolution of 1917; 2) during the Second World War; 3) in the 1970s when dissidents and Jews were allowed to leave the Soviet Union; 4) from 1980s onwards (perestroika and post-perestroika). It is difficult to analyse the waves that occurred in the 21<sup>st</sup> century in such a decisive way yet, especially with the newest wave of immigration from Russia, Ukraine and Belarus occurring as I write. It has

been argued that between the 1980s and 2014, the main reasons for immigration remained almost entirely economic as the Soviet Union and then the Russian Federation opened up its borders, allowing Russian speakers to seek comfortable living abroad (Montrul and Polinsky 2021). From 2014 onwards, and especially after 24<sup>th</sup> February 2022, political immigrants also emerged as a much more common phenomenon. The participants of the present study include heritage speakers that moved away from a Russian-speaking country 7 years ago at the latest, with the oldest born as early as the 1970s, meaning that their families' experiences potentially pertain to at least two of the four original waves, if not several more 21<sup>st</sup> century ones.

#### ***2.4.1.2 Russian heritage speakers in the UK***

So far, most of the research on Russian heritage speakers has been done in the United States (Andrews 1993, Kagan and Dillon 2003, Polinsky 2000, Polinsky 2008, Isurin and Ivanova Sullivan 2008, Dubinina and Polinsky 2013, Polinsky 2018, among others), where the Russian-speaking population is one of the largest outside of the post-Soviet space (900,000 people or 0.2% of the total US population). Germany (Isurin and Riehl 2017), Israel (Kopeliovich 2014, Schwartz and Minkov 2014) and Finland (Moin et al, 2013) have also been used as a setting for heritage language research as the countries with even larger Russian populations. However, Russian heritage speakers in the United Kingdom, which hosts 73,000 Russian speakers (or 0.1% of the total UK population; data from the Office of National Statistics, 2020-2021), has not been explored to the same extent. In terms of linguistic diversity, the UK joins Germany in having one of the largest foreign citizen populations in Europe (ca. 70 nationalities, Eberhard et al 2019), making it a valuable setting for heritage language studies. Russian communities in the UK are relatively active, with Russian community schools scattered across the country but mostly concentrated in London.

#### ***2.4.1.3 Lifestyle upon arrival***

As has been noted previously, many of the parents of Russian heritage speakers are first-generation immigrants, and the acquisition outcome of their children depends largely on language input within the home, in the local community and at school. Writing about first-generation Russian-speaking immigrants, Hill (2014, cited in Montrul and Polinsky 2021: 18) writes: “Russians appear to accept the change to L2 as inevitable and even desirable”, - suggesting that Russians are potentially less interested than other

immigrants in maintaining their native language and culture, especially nowadays when such immigration is seldom forced, unlike in the Soviet Union. Similarly, Laleko (2013) notes that in the United States, Russian does not remain in an immigrant family beyond the third generation. Montrul and Polinsky (2021: 429) go as far as calling generation the biggest variable in heritage language proficiency. Kagan and Dillon (2010) illustrate this shift in more detail by showing that heritage speakers use Russian mostly to converse with older relatives and other adults, but not with their own generation or younger speakers. While 85% of heritage speakers talk to their parents in Russian, 95% to their grandparents and 72% to other adults, only 12% use Russian when talking to their peers. There are rare exceptions to this generational decline, with some Russian communities in Israel (Polinsky 2018: 21) and a community in Toronto (Nagy 2015) maintaining continuity of language and culture. However, for the most part, heritage language use declines in younger generations, who use the dominant language to fulfil the need for acceptance in the society surrounding them.

#### ***2.4.1.4 Recent developments***

Notably, since the immigration waves of the 20<sup>th</sup> century, a lot more communication opportunities for modern heritage speakers have emerged with the development of the Internet, potentially allowing for more independent input from the homeland. However, not enough research has been conducted to understand the effect of such a development; the present study attempts to address this influence to the limited extent that the scope of the work allows. It has also been noted that the desire to maintain the heritage language and culture in first- and second-generation immigrants can be increased when the immigrants maintain high mobility between their country of residence and the homeland, maintaining what Polinsky (2018) refers to as a “binational lifestyle”. It remains to be seen how exactly the recent dramatic decrease in the ability of Russian speakers from Russia to lead a binational lifestyle after the political and military events of spring 2022 is affecting or will affect the desire of heritage speakers and their families to use Russian in their new countries. Hopefully, a future exploration of such effects in the literature awaits.

### **2.4.2 Role of education in the heritage language**

#### ***2.4.2.1 Community schools***

Evaluating the role of the classroom setting in heritage language acquisition is vital for its definition. On one hand, Kagan and Dillon (2003) claim that heritage languages are spoken in the home, while the dominant language is spoken in all educational settings. Similarly, Fillmore notes that it is at the moment of entering formal education that the major shift towards the dominant language occurs for heritage speakers (1991). It is therefore often the case that those heritage speakers who are also educated in their home language are more likely to have a better command of it. The importance of heritage language education has been noted by many researchers (Fishman 2001, Kelleher 2010), with Lee and Chen-Wu (2021:780) stating that such education has ‘a major role in supporting the maintenance and development of both oral and literacy skills’ in the heritage language. Lee and Wright (2014) also claim that home input alone is not enough if the goal is to prevent heritage language attrition. In the present study, as in most others in the field, those that are receiving or have received instruction in their heritage language, on top of the exposure to this language in the home and the exposure to the dominant language in other educational and non-educational contexts, will be considered heritage speakers.

Heritage language education in the classroom format usually occurs in Saturday schools or after-school sessions. Since ordinary schools usually do not cater to the desire of certain immigrant parents to keep their children connected to the language and culture of their homeland, this is usually a reactionary measure that reflects the lack of support from the larger educational system (Montrul and Polinsky 2021). It is evident that heritage speakers differ from ordinary L1 or L2 speakers, and therefore need a distinctive teaching approach which is not necessarily developed or used due to either lack of research or limited resources inside the communities themselves (Montrul 2010).

#### ***2.4.2.2 Russian community schools in the UK***

According to Polinsky and Montrul (2021: 777), community schools catering to heritage speakers have existed in the UK for more than 50 years. While there is no recent data on the exact number of Russian heritage speakers in the UK nor the number of Russian community schools, a census completed in 2010 by the London School of Russian Language and Literature in collaboration with “Russkiy Mir” found at least 25 functioning schools in the country, with many more potentially appearing since then. Once again, there is no available recent data on the number of Russian community

schools in the US, but the directory of the Centre for Applied Linguistics contains 65 schools that offer Russian language schooling to local communities, which is certainly not a much larger number than that of the UK given the vast difference in the size of the total population. As a result, it appears that an investigation of heritage speakers in the UK is due, which is what the present study sets out to do.

### **2.4.3 Linguistic features of Russian as a heritage language**

#### **2.4.3.1 General trends**

As has been described in the opening sections, a heritage language is usually a weaker L1 the acquisition of which has been interrupted. While some researchers claim this to be the result of incomplete acquisition, and others – that the language has been fully acquired but then underwent attrition, there are certain linguistic features that heritage grammars have in common. For example, Amaral and Roeper (2014) note that less dominant L1s tend to have less complex grammars; certain grammatic elements are never developed or lost and replaced by more regular forms. Hawkins (2004) explains this using the Minimal Domains preference, which calls for reducing irregularities and using adjacent forms instead. This is also referred to by Polinsky (2018: 617) as overregularisation, where heritage speakers overextend simpler patterns to replace more complex ones. These trends have been reflected in heritage language phonology, morphology, syntax, and other key linguistic domains.

#### **2.4.3.2 Phonology**

Phonology is a linguistic domain that is often the hardest to perfect in L2 learning, and heritage speakers, even with their more naturalistic acquisition process, might often lack monolingual-sounding pronunciation even if they are fully competent in other domains. In their study of Russian phonology in L1 speakers, heritage speakers and L2 learners, Lukyanchenko and Gor (2011) found that heritage speakers performed better than L2 learners, indicating that early exposure to the language even without its dominance can give heritage speakers an advantage. However, heritage speakers were still much less uniform in their pronunciation than monolinguals, showing that this advantage might not be enough. For example, they often find it difficult to distinguish certain phonologic contrasts like palatalized and non-palatalized consonants (Polinsky

2018: 25). Similarly, they might produce aspirated initial voiceless stops (Polinsky 2000), soften the velarised L (Sussex 1993) or produce a flapped R instead of a thrilled R (Zemskaja 2000).

### **2.4.3.3 Morphosyntax**

It has been noted in recent research that morphology is the domain with the most diverse acquisition outcomes among the linguistic domains of a heritage language (Montrul and Polinsky 2021: 613). Heritage language morphologic and syntactic loss also appear to be linked together in a certain way as both correlate with lexical attrition (Polinsky 2006). These domains are also where the overregularisation discussed in Section 6.1 is extremely apparent, as heritage speakers tend to lack irregular morphosyntactic forms and use simpler ones (Polinsky and Kagan 2007, Montrul 2008). For example, in the US Russian heritage speakers blur the difference between animate and inanimate masculine noun case markings and simplify the original three-gender system (Polinsky 2018). Such reductions and changes vary depending on the country: for example, while Russians in the US use the same verb inflections for infinitive and present tense forms, even though they are supposed to be different, German Russians use verb inflections that are closer to the monolingual baseline (Gagarina and Klassert 2018). Polinsky (2000, 2018) also found that many US Russians no longer use the “бы” conditional form and also prefer to avoid null subject pronouns in cases where such use is common in monolinguals. On the other hand, in Polinsky (2011) we see that young Russian heritage speakers are much stronger in their use of relative clauses than adult heritage speakers. This means that comparing all other linguistic features of a heritage language in young speakers to adults could provide extremely useful information about how a heritage language develops with age. Nevertheless, there is still no systematic comparison of full language profiles between Russian heritage speakers at a young age, in adulthood and in old age. By comparing young heritage speakers with adult heritage speakers, the present study aims to close this gap for at least one of the features of the Russian language – case markings in nouns.

### **2.4.3.4 Pragmatics**

Using a survey of teachers working with Russian heritage language speakers and L2 learners, Kagan and Dillon (2003) show us some key similarities and differences between the two groups in terms of their understanding of pragmatics. For example,

heritage speakers typically have issues with code-switching, register mixing and English borrowings. Both groups, however, have problems with mastering intonation, inappropriate idiom use and formality levels. The issues with register mixing are also confirmed by Polinsky and Kagan (2007), who found that heritage speakers use a mixture of the formal and informal register inappropriately.

## 2.5 CASE IN RUSSIAN NOUNS

### 2.5.1 General features

The system of case in the Russian language is a complex one spanning over several grammatic domains such as phonology, morphology, syntax and semantics. Case is marked not only on nouns, but also adjectives and pronouns, but the subject of the present study is specifically case inflection on nouns. In nouns, Russian case interacts with number, gender and declension, a mixture that can often be challenging to decipher and acquire for both a monolingual and bilingual child (Schwartz 2014). For the purposes of the present study, we will primarily consider the main six Russian cases that cover the majority of relevant linguistic contexts, even though the system is more complicated upon a deeper consideration. When contexts and forms outside of the main six cases arise in the data and/or can influence the analysis of a participant's performance, such situations will be discussed on an individual basis.

There are six main cases in modern Russian: Nominal, Genitive, Dative, Accusative, Instrumental, and Prepositional. Each case has a core and a peripheral function in the grammar: as Schwartz (2014) exemplifies, the Instrumental case has the core function of 'instrument' and other peripheral functions such as agent, and temporal adverbial. In Russian schools, when monolingual children are taught the case system as an official topic in the language curriculum, they use a system of questions to determine the case of a noun. The questions and functions pertaining to each case can be found in Table 1.

Russian nouns pertain to three main types of declensions that determine which case endings the each takes on. The first declension contains feminine nouns except those with a 'zero' ending spelled with *ь*; it also includes masculine nouns ending with *а/я*. In

declension two we find almost all masculine nouns except those in the first declension just mentioned, and almost all neuter nouns. The third declension contains feminine nouns spelled with a *ь* ending that we have previously excluded from the first declension. Each declension has its own type of case endings, and within a declension, endings may differ depending on the gender, animacy and consonant palatalisation of the noun (Zaliznjak 1977, Schwartz 2014). Some nominative, accusative and genitive forms in specific nouns are the same as each other, further complicating the system. The different case endings according to the three declensions in the singular and the plural can be found in Table 2.

Some researchers also include a fourth declension, which contains foreign nouns that cannot be analysed within the three main declensions (Babyonyshev 1993); others consider such nouns “declensionless” (Halle 1993). In the present study we will avoid this lack of clarity in terminology and consider the three principal declensions only.

### **2.5.2 Monolingual acquisition of Russian case**

Since the Russian case system is expressed mainly through word inflections (with the present study focusing in particular on noun inflections), it is reasonable to expect monolinguals to acquire it relatively fast, since children have been shown to acquire inflections well in previous research (Wexler 1998). Nevertheless, the acquisition of case in Russian is linked with several challenges for the monolingual child. For example, case endings usually carry information about gender and number as well as case, making it difficult to isolate the case system straight away (Peters 1997). Furthermore, some case endings are similar to one another or are reduced to schwa in speech, making the knowledge of Russian phonologic distinctions very important for distinguishing them successfully (Slobin 1985). This is true not only for Russian, but also for other languages with non-transparent inflections carrying multiple types of grammatic information at once (Gathercole 2006, Dieser 2007). Nevertheless, Russian children acquire case endings relatively early on in the acquisition process: according to Cejtin (2009), the child acquires most distinct case and gender markings by the end of the third year. Then, Eliseeva (2005) states that irregular case endings are acquired between age 5 and age 7. After this point, their case choice is almost always correct, with the only errors being linked to wrong declension assignment for unknown words (Gvozdev 1961). At this

point, the errors are not linked to an incomplete case system, but rather to new words that the child might not immediately assign to a declension.

When a child does not know a word, he or she might not understand what type of inflection is needed and may therefore produce a morphologically incorrect form. In such a case a child is having problems with particular forms of the system, but not necessarily with the core concept of case. According to Cejtin, Russian children only make mistakes in the overt case endings (overgeneralizations, wrong choice within a number of possible variants), but almost never in the functions of case (at least from the moment that they start using two-word utterances onwards) (Cejtin 2009: 168).

### **2.5.3 Heritage acquisition of Russian case**

From looking at existing research it is reasonable to expect case morphology to pose challenges to heritage speakers in general, and Russian heritage speakers in particular, especially when the dominant language, like English, does not possess a case system of the same richness. Montrul (2016) underlines the challenge that cases pose to heritage language speakers; O'Grady, Lee and Choo (2001) claim that heritage speakers of Korean have no advantage over L2 Korean learners when it comes to acquiring case markings. Similarly, Johnson (2018) describes the overextension of the nominative case to inappropriate linguistic contexts in heritage Finnish spoken in Wisconsin. In turn, heritage German according to Boas (2009) displays a loss of grammatical case and gender marking, expressing case with word order instead. There have also been studies on lexical decision and grammatical judgement linked to Russian case endings that suggest potential errors in comprehension and, subsequently, production. For example, Gor et al (2018) show that heritage speakers and L2 Russian learners are both likely to accept non-words created by combining a word from one declension with a case ending from another declension as grammatically acceptable, with error rates significantly above chance. In a similar study, Gor et al (2019) demonstrate that for heritage speakers and L2 learners, lexical decisions are faster when a noun has a nominative rather than oblique case ending.

It is therefore unsurprising that the production of case and gender markings in Russian as a heritage language is also of interest and has been shown to change in previous research. In this context, case and gender errors are often interlinked as Russian noun endings carry information on both simultaneously. Isurin and Ivanova-Sullivan (2008), Polinsky (2008),

Pavlenko (2009), and Schwartz et al (2015), among others, show that case and gender errors are common in Russian heritage speakers. The common trend in both case and gender system changes appears to be re-analysis and simplification, similarly to the

Case	Questions		Core function	Peripheral functions
	Russian	English		
Nominative	Кто? Что?	Who? What?	main subject	default case outside of sentences, preposition за (what kind of?)
Genitive	Кого? Чего?	Whom (of whom)? What (of what)?	direct object	some time expressions, prepositions indicating motion like в (into/inward), на (onto), за (behind, after), под (under), other prepositions: про 'about', через 'over, through', сквозь 'through'
Dative	Кому? Чему?	To whom? To what?	posession	numerals and quantifiers, negated verbs, to indicate total absence, some time expressions, prepositions: без 'without', вместо 'instead of', возле 'near', вокруг 'around', впереди 'ahead of', для 'for', до 'before', из 'from', из-за 'because of, from behind', от 'from', кроме 'except for', мимо 'past by', около 'near', после 'after', против 'against, opposite', среди 'among', у 'by', близ 'near', вдоль 'along', вне 'out of, outside', внутри 'inside'; verbs: бояться 'afraid of', достигать 'reach', избегать 'avoid'; adjectives: полный 'full of' (genitive noun)
Accusative	Кого? Что? Куда?	Whom? What? To where?	indirect object	some time expressions; impersonal clauses like 'собаке холодно', age statements, prepositions: по 'on', к 'to(wards)', благодаря 'thanks to', auxiliaries: нужно or надо 'need/must (to)', можно 'allowed', нельзя 'forbidden', verbs: верить 'believe', помочь 'help', советовать 'advise', звонить 'call', удивить(ся) 'amaze (self)'
Instrumental	Кем? Чем?	With whom? With what?	Instrument	logical subject of passive clause, secondary direct object, durational time expressions, verbs: интересоваться 'interest (to be interested in)', пользоваться 'use', занимать(ся) 'occupy (to be preoccupied with)', associates of connective verbs: быть 'be', стать 'became', остаться 'remain', казаться 'appear to be', оказаться 'turn out to be', prepositions of position: за 'behind', перед 'in front of', над 'above', под 'below', между 'between', (вместе) с '(together) with', adjective: довольный 'pleased by'
Prepositional	О ком? О чем? Где?	About whom? About what? Where?	preposition s	prepositions of place в 'inside', на 'on (top of)', в 'inside', на 'on (top of)

Table 1. Russian cases and their functions

Table 2. Basic noun case system in Russian (adapted from Schwartz 2014)

Case	Declension 1 (fem, masc)		Declension 2 (masc, neuter)		Declension 3 (fem)	
	sing	plu	sing	plu	sing	plu
	<b>Nominative</b>	па́па	па́пы	сто́л	сто́лы	дверь
	земля́	зе́мли	окно́	о́кна	мышь	мы́ши
	ми́шка	ми́шки	сло́н	сло́ны	ночь	но́чи
<b>Genitive</b>	па́пы	пап	стола́	столо́в	двери́	дверей
	земли́	земель	окна́	о́кон/око́н	мы́ши	мышей
	ми́шки	мишек	слона́	слоно́в	но́чи	ночей
<b>Dative</b>	па́пе	па́пам	сто́лу	стола́м	двэ́ри/двери́	дверям
	земле́	зе́млям	окну́	о́кнам	мы́ши	мыша́м
	ми́шке	ми́шкам	слону́	слона́м	но́чи	ноча́м
<b>Accusative</b>	па́пу	пап	сто́л	сто́лы	дверь	двэ́ри
	зе́млю	зе́мли	окно́	о́кна	мышь	мышей
	ми́шку	мишек	слона́	слоно́в	ночь	но́чи
<b>Instrumental</b>	па́пой	па́пами	сто́лом	стола́ми	двэ́рью	дверьми́
	земле́й	зе́млями	окно́м	о́кнами	мышью́	мыша́ми
	ми́шкой	ми́шками	слоно́м	слона́ми	но́чью	ноча́ми

	па́пе	па́пах	столе́	стола́х	двѐри	дверях
<b>Prepositional</b>	земле́	зѐмлях	окне́	о́кнах	мы́ши	мыша́х
	ми́шке	ми́шках	слоне́	слона́х	но́чи/ночи	ноча́х

general discussion on heritage grammars in Sections 2-4. For example, Polinsky (2006) shows that the three-gender system gets re-analysed and collapses into two genders in heritage Russian. Minkov et al (2019) conducted a study on gender and case errors in heritage Russian in the US, Germany, Israel and Finland; most participants in all four countries produced both case and gender errors, with the exception of German participants where only one person made both types of errors. In Israel, Finland and the US case seemed to be more challenging than gender, while in Germany gender appeared more challenging instead; overall, German and Finnish groups outperformed Israeli and American ones. The main type of gender error relevant to the subject of our study was the use of the wrong declension, while the main case error was found to be the use of nominative case to replace oblique case markings; this error was prevalent in Israel and the US, while in Germany and Finland it appeared only a couple of times. Incorrect oblique endings also emerged occasionally, demonstrating that the system has not collapsed completely but a serious simplification is under way. It also is evident that while case errors in heritage Russian can be somewhat similar across countries and continents, there are still noticeable geographical differences, showing us that gathering similar data in the UK is also important but has not yet been done to the same extent.

Some major trends in heritage Russian case errors still appear in recent research regardless of its geography, even though we have to bear in mind that the overwhelming majority of such findings is still gathered in the US, making research in the field more limited than would have been preferred. In American-Russian heritage language, according to Polinsky (2008), it is common, just like Minkov et al (2019) describe, for the nominative case to replace different oblique case endings. In Polinsky (2018), American-Russian case errors are summarised as:

- a) using the nominative for everything except marking the indirect object;
- b) marking the indirect object with accusative instead of dative endings (see also Polinsky 2006; example from Polinsky and Zybatow 2000: 796):

Heritage grammar:

рассказывай	<b>Лену*</b> (ACC)	моя	<b>сказка*</b> (NOM)
<i>rasskazyvaj</i>	<i>Lenu</i>	<i>moja</i>	<i>skazka</i>
tell (IMPER)	Lena	my	fairy tale

Standard Russian:

рассказывай	Лене (NOM)	мою	сказку (ACC)
<i>rasskazyvaj</i>	<i>Lene</i>	<i>moju</i>	<i>skazku</i>
tell (IMPER)	Lena	my	fairy tale

- c) all other oblique endings replaced with nominative ones, including after prepositions, where the instrumental is replaced by the nominative (example from Brehmer 2021):

Heritage grammar:

с	моими	<b>друзья*</b> (NOM)
<i>s</i>	<i>moimi</i>	<i>druz'ja</i>
with	my	friends

Standard Russian:

с	моими	друзьями (INST)
<i>s</i>	<i>moimi</i>	<i>druz'jami</i>
with	my	friends

- d) restricting the use of dative case endings with perception and psychological verbs to only preverbal NPs (see also Polinsky 2006).

Polinsky describes the marking on direct and indirect objects as the marked vs unmarked paradigm, instead of the accusative vs dative markings used to distinguish these in Standard Russian. Similar trends have been noted in heritage Hindi, Turkish and Spanish, where the direct object marking is reduced in the case system (Montrul and Polinsky 2021). It is worth noting, however, that this feature of heritage Russian, as well as the restrictions on the dative case described in the fourth point, were not confirmed by findings from Isurin and Ivanova-Sullivan (2008); in turn, they still found a lack of grammatical accuracy in oblique case endings, showing a deviation of 2.4% from Standard Russian overall, as opposed to 6% deviation in L2 learners and 0% in monolingual controls.

While this percentage does not appear massive, Isurin and Ivanova-Sullivan stress the importance of verifying these findings in the future using translation tasks. This is because such studies (Polinsky 2008, Isurin and Ivanova-Sullivan 2008, to name a few) utilise the so-called frog methodology, employing a controlled narration task based on the book *A boy, a dog, a frog and a friend* by Mayer and Mayer (1978), where a participant would narrate a story based on pictures. Case data would then be extracted from the recording of such a narration. In the present study, a decision has been made to use specific sentence translation instead in order to prompt participants to use or attempt to use each case and declension at least a certain number of times. In sentence translation it is harder for a participant to simply avoid a specific case or word, while in the frog methodology this would not be possible to control to the same extent.

The studies described above also outline certain factors that influence the extent to which the case system changes. For example, Minkov et al (2019) note that the two groups that performed the best in their studies (the German and the Finnish group) differed from other participants in that they only used Russian at home, attended bilinguals schools and consistently used their heritage language with friends. As a result, Minkov and colleagues stress the importance of regular exposure to the heritage language in the contexts above for the preservation of case and gender morphology in nouns. This is consistent with the claim by Isurina and Ivanova-Sullivan (2008) who, while outlining the age of arrival and heritage language exposure as the two main factors, state that exposure is much more important; all of their participants also did not live with their Russian-speaking families at the time of study. The present work incorporates these factors in the questionnaire and participant selection hoping to, at least to a limited extent, see if these factors influence our data.

## **2.6 WARRANT FOR THE PRESENT STUDY**

It is now time to briefly summarize the gaps in the existing field of heritage language study that have been described in this review and which the present study attempts to fill to the extent that its small scale allows. Overall, the main areas that the study hopes to contribute to, in order of priority, are:

- 1) Studying Russian as a heritage language specifically in the UK as opposed to the US and other countries with large Russian-speaking populations; the UK has a sizeable Russian-speaking population that cannot simply be covered by findings from another English-speaking country and requires a separate investigation.
- 2) Looking at the difference between young and adult heritage speakers, with the age gap big enough to signal a significant change in family relationships, education and lifestyle; such an age comparison has not yet been done, and although the present study does this with a relatively small group size, this is a necessary first step to hopefully continue such comparisons in the future.
- 3) Analysing the case system using a translation task with a more defined set of stimuli as opposed to using the “frog methodology” popular in the field; the methodology used in this study allows us to stimulate participants to use as many different case forms and declensions as possible to provide a wider variety of data for analysis, while the “frog methodology”, albeit useful for identifying avoidance behaviours, offers much less output control.
- 4) Touching on all aspects of the family – community – formal education triad by Kagan (2005) in the background questionnaire, even if to a limited extent; while the present study is not a full sociolinguistic investigation, it is necessary to gather some background information in a structured way that is relevant specifically to the heritage speaker population.

### 3. METHODOLOGY

#### 3.1 RESEARCH QUESTIONS

1. In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from that of age matched L1 Russian speakers ordinarily resident in Russia?
2. In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from young children to adults?
3. In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from that of heritage speakers in previously studies countries like the US?
4. Does the way in which Russian is used outside of the school setting affect case markings on nouns in young and adult heritage speakers?

#### 3.2 PARTICIPANTS

**Group 1:** This group consisted of young Russian heritage speakers studying in a Russian community school in the UK (n=9; M=5, F=4). The students were between ages 10 and 13 (mean=11.7) and were recruited through the school. Seven of the students were born and raised in the UK, one student moved to the UK before age 1, one moved at age 2, and another moved at age 3.

**Group 2:** This group consisted of adult Russian heritage speakers living in the UK (n=5; M=3, F=2). The adults were between ages 36 and 51 (mean=45.2) and were recruited via social media advertisement and snowballing; they were either born in the UK or moved there in early childhood.

**Group 3:** This group consisted of young Russian speakers born and raised in Russia and studying in middle school in Moscow (n=14; M=7, F=7). The students were between ages

11 and 13 (mean=12) and were recruited through the school. One student (not included in the main group) was used for a pilot run of the task prior to the main testing sessions.

**Group 4:** This group consisted of adult Russian speakers that were born and grew up living in Russia (n=20; M=8, F=12). The adults were between ages 31 and 53 (mean=42.96) and were recruited via social media advertisement and snowballing.

### **3.3 MATERIAL**

#### **3.3.1 Questionnaire**

A questionnaire was used to gather information about the participants' background, including age, country of birth, perceived level of Russian and English, and language(s) spoken in and out of the household. Questionnaires for heritage speakers contained additional questions about different sources of Russian input such as the TV, the Internet and extra-curricular reading, as well as a question on whether they think they will use Russian a lot in the future. Questionnaires for all 4 groups can be found in Appendix B.

#### **3.3.2 Stimuli**

The stimuli for the task were designed by the researcher of this study for the purpose of looking at case endings in Russian nouns. These consisted of 24 sentences in English (mean length of sentence = 8.46 words; SD = 1.29), each containing 2-3 nouns (mean = 2.875; SD = 0.33; 69 nouns in total). The sentences were designed to be translated into Russian in a way that prompts the use of the six Russian cases, as well as the three noun declensions. Naturally, some of the cases and declensions, like the nominal case and the second declension, appear more frequently in written and spoken Russian, while others are slightly rarer, like the instrumental case, and significantly rarer, like the third declension. As a result, for the sake of making the sentences sound more natural and not indicating to participants that case specifically is being studied and manipulated here, the nominal case appears more frequently than others, while nouns in the third declension appear very rarely, but are still present in the stimuli. In addition, since sentences can often be translated in several different ways, the numbers of case and declension appearances below are taken from a sample translation completed by the researcher. While in participants' answers these numbers fluctuate slightly, it is still a relatively accurate estimation of how many instances of each case and declension were produced. The verbal task can be found in Appendix C.

### 3.4 TASK

An oral sentence translation task was used to prompt the use of different cases. Participants were given a list of 24 sentences in English and asked to translate them verbally into Russian one by one. The task was not timed, and participants were allowed to take their time and read through the sentences carefully. Oral testing specifically was used to account for participants who may speak Russian but are unable to write in the Cyrillic script, as is often the case with Russian heritage speakers (Kagan and Dillon 2003).

Number of each case	
Nominative	17
<b>Number of each gender</b>	
Genitive	10
Dative	12
Masculine	41
Accusative	12
Instrumental	8
Feminine	26
Prepositional	10
Neuter	2

Number of sing./plur.	
Singular	52
Plural	17

Number of each declension	
1st	23
2nd	41
3rd	5

### 3.5 PROCEDURE

### 3.5.1 General information

Participants were tested individually. Each participant was asked to fill in the background questionnaire, after which they looked at the 24 English sentences and translated them into Russian verbally one by one. As this task was not designed to test their vocabulary knowledge, subjects were allowed to ask the researcher for meanings of separate words they did not know the meaning or translation of as many times as they needed to, and they were warned that in this case the researcher will give them individual words in their neutral form (for nouns, this would be the singular in the nominal case). Participants were informed that the task is not timed and that they should read each sentence carefully and calmly before producing a translation. Their responses were tape recorded, these recordings were later transcribed into text form containing the necessary case data, with the original recordings deleted as the sound data itself was not necessary for the analysis. The entire session took approximately 15 minutes for each participant.

### 3.5.2 Group-specific information

**Group 1:** Young heritage speakers were tested during a school day in their community school in the UK. Each participant was taken to a separate quiet classroom and presented with the questionnaire and the translation task by the researcher. They were allowed to ask the researcher any questions about the vocabulary they did not know.

**Group 2:** Adult heritage speakers were tested via Microsoft Teams, with the questionnaire and the sentence list sent to them electronically at the beginning of the session. They were allowed to ask the researcher any questions about the vocabulary they did not know.

**Group 3:** A single student of the same age group from the same school was invited to participate in a pilot run of the task with the same procedure that was used for Group 1. The rest of the group of young Russian speakers was tested during a school day in their school in Russia. While the original plan was to test these participants with the procedure identical to Group 1, these plans were disrupted by an outbreak of measles in the school in April-May 2023. This meant that the researcher was no longer allowed to be present in person inside the school as preventive restrictions were put in place. The teachers did not have the logistic means of testing the participants verbally one by one due to busy school schedules, which is why the decision was made to complete the testing in written form, with participants writing down their answers on paper. Participants did not consult with

each other; the teacher was allowed to provide meaning of single words, just like the researcher would in the original format.

**Group 4:** Adult Russian speakers were tested via Microsoft Teams, with the questionnaire and the sentence list sent to them electronically at the beginning of the session. They were allowed to ask the researcher any questions about vocabulary they did not know.

### 3.6 Transcription

Audio files were transcribed by hand to make sure case endings were captured correctly as some could be unclear/schwa-like. A sample transcript can be found in Appendix D. Transcribed documents were analysed for different instances of case use and different types of case errors (marked in **bold**). Different cases were marked as follows:

**Yellow** – Nominative

**Green** – Genitive

**Light blue** – Dative

**Pink** – Accusative

**Red** – Instrumental

**Dark blue** - Prepositional

## 4. RESULTS

#### 4.1 General statistical data

In Figure A we can see the performance accuracy in % in the six cases in each separate group. The accuracy was calculated as a percentage from the total number of occurrences of each case – the raw number of occurrences along with the raw number of errors in each group can be found in Tables 3 and 4. In the two-sample t-test conducted for the percentage values in each group, only the Nominative and the Accusative values did not deviate from the standard set by the monolingual control groups in a statistically significant way, while the other cases all deviated significantly. Nevertheless, visually it is evident that, apart from the Nominative case, we find deviations in all cases for groups 1 and 2, while group 3 performs almost perfectly, and group 4 makes no errors. The brackets indicate where the difference between controls and heritage speaker groups in terms of p-value are significant (\*,  $p < 0.05$ ) and extremely significant (\*\*,  $p < 0.01$ ).

**Table 3. Number of nouns and errors per group**

Group	Total nouns		Average nouns		Total accuracy		Average accuracy	
	Total number used	Total number of errors	Average number used	Average number of errors	Overall accuracy %	Overall errors %	Average accuracy %	Average errors %
1	620	97	68.89	10.78	84.35	15.65	84.28	15.72
2	339	115	67.8	23	66.08	33.92	70.53	29.47
3	878	3	67.54	0.23	99.66	0.34	99.66	0.34
4	1353	0	67.65	0	100	0	100	0

Nominative

Genitive

Group	Total				Average			
	Total used	Total errors	% accuracy	% errors	Average used	Average errors	% accuracy	% errors
1	183	2	99.78	0.22	20.33	0.22	99.03	0.97
2	95	2	97.89	2.11	19	0.4	98.1	1.9
3	2553	0	100	0	19.62	0	100	0
4	73	0	100	0	11	0	100	0

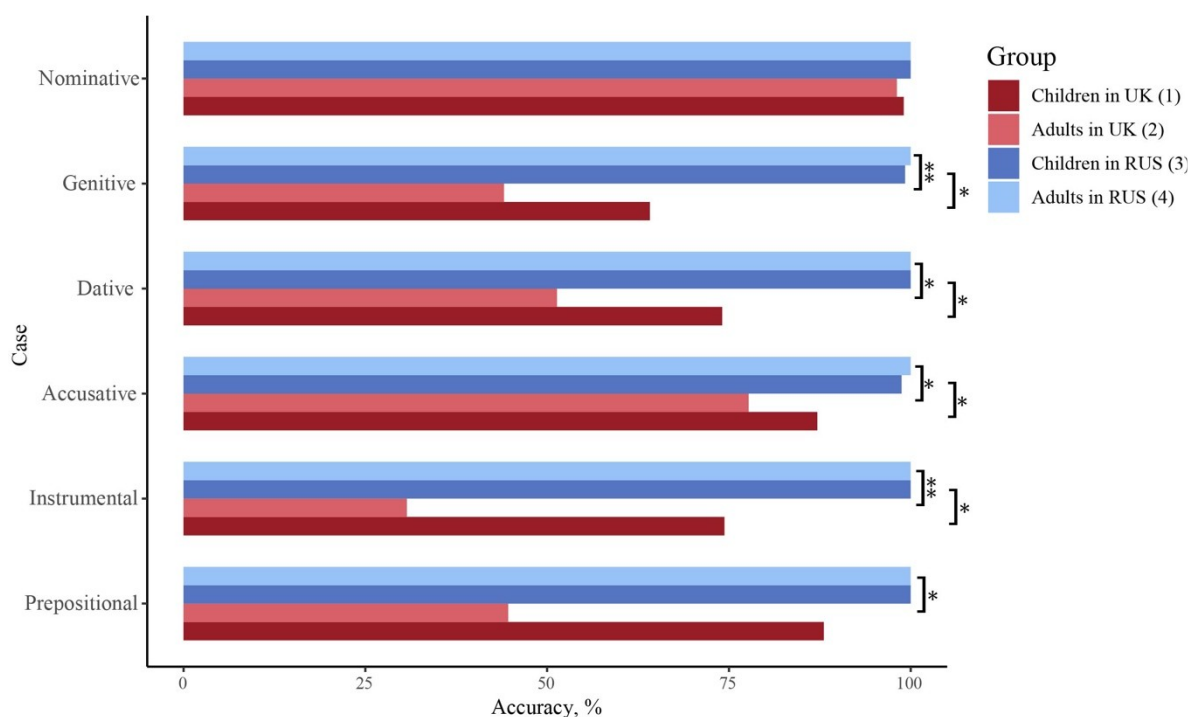
Group	Total				Average			
	Total used	Total errors	% accuracy	% errors	Average used	Average errors	% accuracy	% errors
1	83	31	62.75	37.25	9.22	3.44	64.13	35.87
2	47	28	40.43	59.57	9.4	5.6	46.93	53.07
3	130	1	99.23	0.77	10	0.08	99.23	0.77
4	86	0	100	0	9.3	0	100	0

Table 4. Percentages of accuracy and raw data per case per group

Group	Dative				Average			
	Total used	Total errors	% accuracy	% errors	Average used	Average errors	% accuracy	% errors
1	94	23	75.53	24.47	2.55	74.08	25.92	

Group	Accusative				Average			
	Total used	Total errors	% accuracy	% errors	Average used	Average errors	% accuracy	% errors
1	12	16	86.99	13.01	13.67	1.78	87.15	12.85

**Figure A. Performance accuracy in each case for Groups 1-4**



In Table 5, we find the p-values for comparisons between Groups 1 and 2 and their respective controls (groups 3 and 4). Here, we see a significant difference in all cases in both Groups 1 and 2 ( $p < 0.005$ ) except three instances: in the Nominative case in both Groups 1 vs 3 and 2 vs 4, and in the Prepositional case in Groups 1 vs 3, indicating that Groups 1 and 2 do not make a significant number of errors in the Nominative comparing to controls, while in the Prepositional case the younger Group 1 of heritage speakers performs better than the adult Group 2.

In Table 6 we find p-values from a one-sample t-test (null hypothesis: accuracy = 100%) conducted on the overall accuracy for Groups 1 and 2, and the Wilcoxon test conducted for Groups 3 and 4 where data was not normally distributed. We see that, again, the overall % of errors in Groups 3 and 4 are not different from a perfect performance in a statistically significant way ( $p = 0.9693$  and  $p = 1$  respectively); further on, we will look more closely at Groups 1 and 2, whose performance significantly differs from a perfect one ( $p = 0.0146$  and  $p = 0.003$  respectively).

**Table 5. P-values per case between Groups 1-2 and their controls**  
*(p > 0.005 marked with cursive)*

Case	<i>p</i> (Group 1 vs Group 3)	<i>p</i> (Group 2 vs Group 4)
Nominative	<i>0.17</i>	<i>0.374</i>
Genitive	0.0187	0.0049
Dative	0.0204	0.0431
Accusative	0.0155	0.0394
Instrumental	0.0284	0.0012
Prepositional	<i>0.1306</i>	0.0463

**Table 6. P-values for the T-test and Wilcoxon test completed for overall accuracy**

<b>T-test</b>	
Group	<i>p</i>
1	0.0146
2	0.003
<b>Wilcoxon test</b>	
Group	<i>p</i>
3	0.9693
4	1

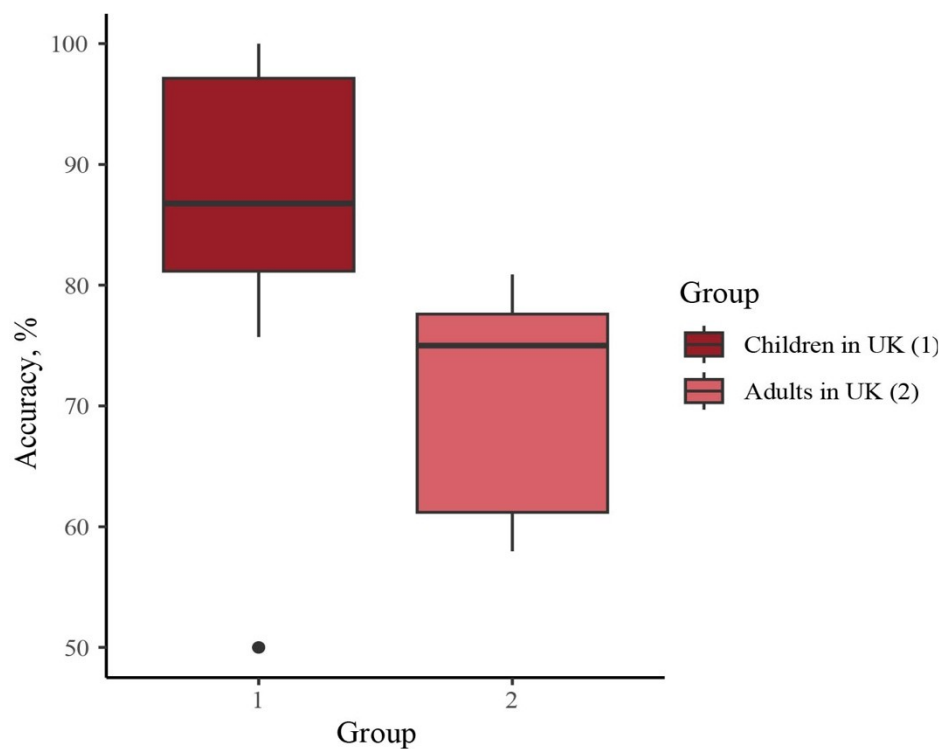
In Figure B, we see a boxplot demonstrating overall accuracy in all cases between Groups 1 and 2. With the exception of a single outlier, there is a visible difference between the

two groups, with Group 1 performing better. It is worth noting, however, that this difference is not statistically significant ( $p = 0.069$ )

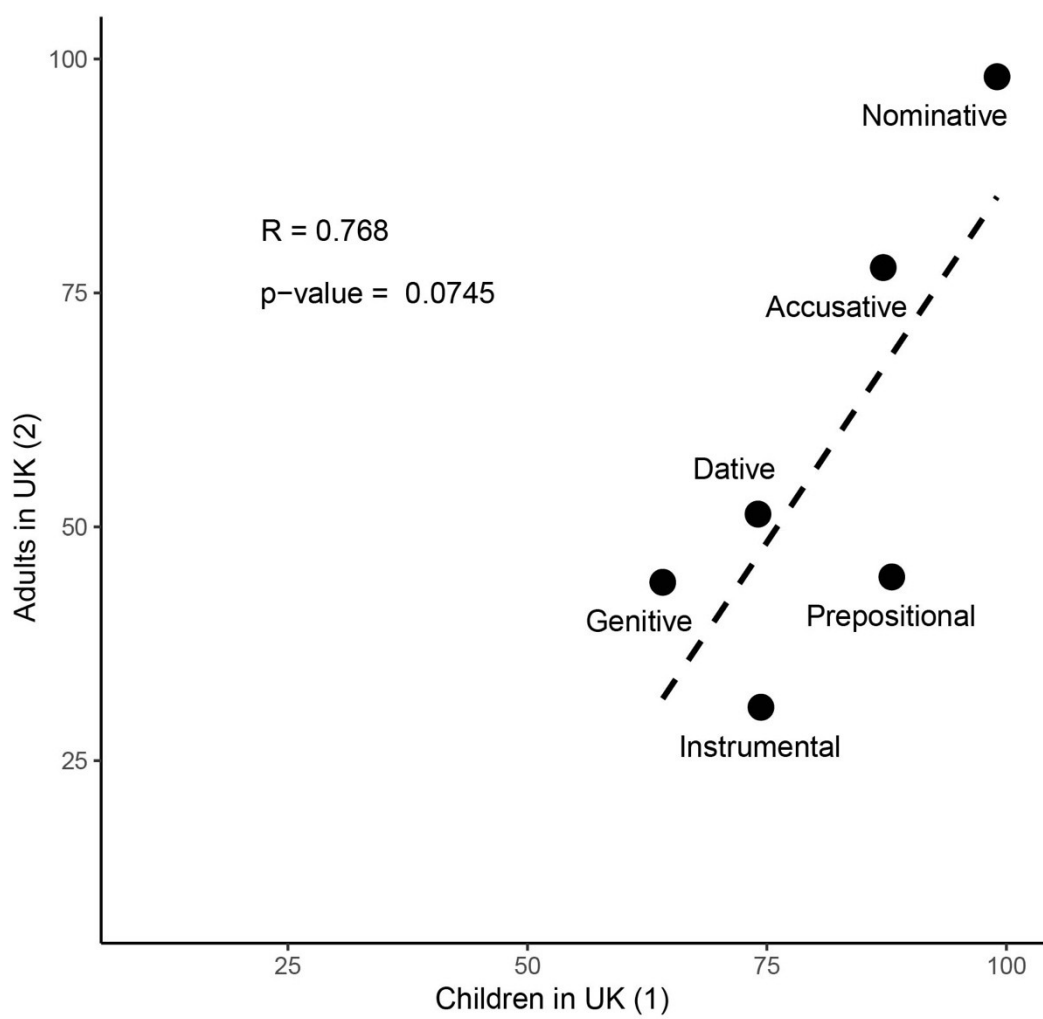
Figure C gives us a closer look at the separate case performance in Groups 1 and 2, with a graph of accuracy distribution between the two. In the order of descending accuracy, we find that the Nominative case is the most accurately used, followed by the Accusative; these are followed by the Dative and the Prepositional, with the Genitive case used the least accurately in Group 2 and the Instrumental in Group 1.

Figure D shows us the extent of the correlation in separate case accuracy between Groups 1 and 2. In this context, the Pearson coefficient was found to be 0.768 ( $p = 0.0745$ ), showing a significant correlation between the percentage of errors made in Group 1 and 2 in each case.

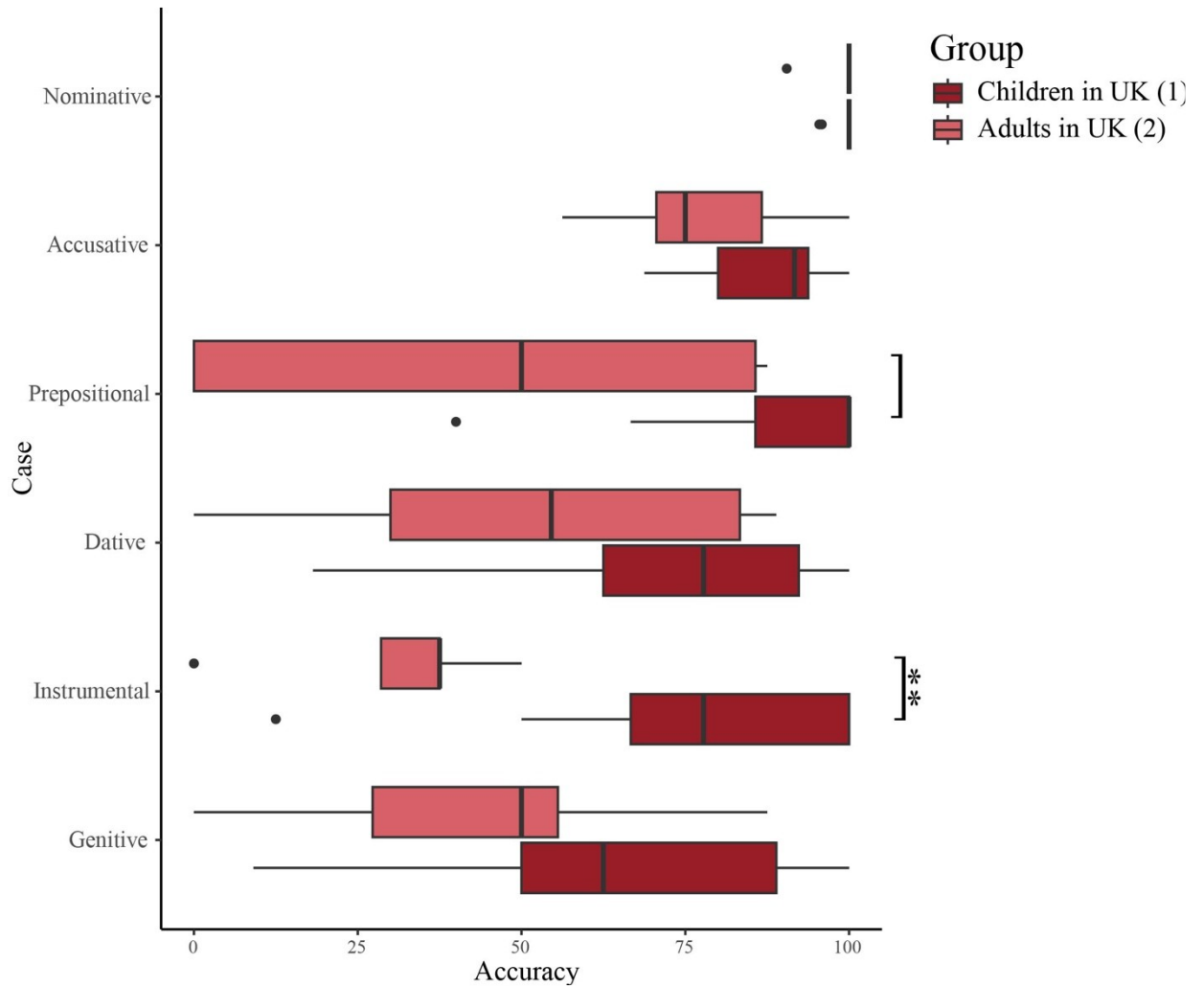
**Figure B. Overall accuracy in all cases for Groups 1 and 2**



**Figure C. Accuracy distribution between Groups 1 and 2 for each case**



**Figure D. Percentage of errors in each case for Groups and 2**



In Tables 7-10 we find the raw results from the background questionnaire for all four groups, while Table 11 shows the p-value of the different social factors and their influence on case performance. The following parameters were tested: Age, Self-assessed level of Russian, Self-assessed level of English, Language used with friends, Language spoken to parents, Language parents speak to you, Watching Russian TV, Reading in Russian, and Expectations 10 years into the future. We see that in Group 1 only the language spoken by the participants to their parents has a statistically significant effect on case accuracy, while in Group 2 the only factor influencing results in a statistically significant way is watching Russian TV. P-value was not possible to calculate for the Friends factor in Group 2 since all participants gave the same answer.

**Table 7.**  
**Background**  
**questionnaire**

Participant	Age	Born in UK?	Age moved	Russian level self-rate	English level self-rate	Parents address you in	You address parents in	You speak to friends in	Russian TV	Reading outside school	Russian in 10 years?
11	10	no	3 or 4	good	good	Russian only	Russian only	Mostly English, some Russian	yes	yes	yes
12	12	no	2	fluent	fluent	Russian and English	Russian and English	English only	no	yes	yes
13	13	yes	n/a	good	fluent	Russian only	Russian only	English only	no	no	yes
14	12	yes	n/a	average	fluent	Mostly Russian, some English	Mostly Russian and English	English only	no	yes	yes
15	11	yes	n/a	fluent	fluent	Russian and English	Russian and English	Russian and English	no	yes	yes
16	10	yes	n/a	good	good	Mostly English, some Russian	Russian and English	English only	sometimes	sometimes	no
17	12	yes	n/a	good	fluent	Russian and English	Mostly English, some Russian	Mostly English, some Russian	no	yes	no
18	12	yes	n/a	average	good	Mostly Russian, some English	Mostly Russian, some English	Mostly English, some Russian	no	no	yes
19	13	yes	n/a	fluent	fluent	Russian and English	Russian and English	Mostly English, some Russian	no	yes	no

**Table 8. Background questionnaire answers – Group 2**

Participant	Age	Born in UK?	Age moved	Russian level self-rate	English level self-rate	Household language	You address parents in	You speak to friends in	Russian TV	Reading in Russian	Russian in 10 years?
21	36	no	5	poor	fluent	English only	Mostly English, sometimes Russian	English only	yes	no	no
22	46	yes	0	poor	fluent	English only	Mostly English, sometimes Russian	English only	no	no	no
23	51	yes	0	poor	good	English only	Mostly English with some Russian	English only	no	no	no
24	51	yes	0	good	fluent	English only	Russian and English	English only	yes	sometimes	no
25	42	yes	0	average	fluent	English only	Mostly English with some Russian	English only	yes	yes	yes

**Table 9. Background questionnaire answers – Group 3**

Participant	Age	Born in Russia?	Age moved	Native language	Russian level self-rate	English level self-rate	You address parents in	Parents address you in	You speak to friends in
31	11	yes	n/a	Russian	fluent	average	Russian only	Russian only	Russian only

32	12	yes	n/a	Russian	good	average	Russian only	Russian only	Russian only
33	13	yes	n/a	Russian	good	average	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages	Russian only
34	13	yes	n/a	Russian	good	good	Russian only	Russian only	Russian only
35	12	yes	n/a	Russian	good	average	Mostly Russian, sometimes other languages	Russian only	Russian only
36	11	yes	n/a	Russian	fluent	average	Russian only	Russian only	Russian only
37	12	yes	n/a	Russian	fluent	good	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages
38	12	yes	n/a	Russian	fluent	fluent	Mostly Russian, sometimes other languages	Russian only	Russian, sometimes other languages
39	13	yes	n/a	Russian	fluent	fluent	Russian only	Russian only	Russian only
310	13	yes	n/a	Russian	fluent	average	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages
311	12	yes	n/a	Russian	fluent	good	Mostly Russian, sometimes other languages	Russian, sometimes other languages	Russian only
312	11	yes	n/a	Russian/Armenian	average	average	Russian and other languages equally	Russian and other languages equally	Russian only
313	12	yes	n/a	Russian	good	good	Russian only	Russian only	Russian only

**Table 10. Background questionnaire answers – Group 4**

Participant	Age	Born in Russia?	Age moved	Native language	Russian level self-rate	English level self-rate	Household language	Talk to parents in	You speak to friends in
41	53	yes	n/a	Russian	fluent	fluent	Russian only	Russian only	Mostly Russian, sometimes other languages
42	43	yes	n/a	Russian	fluent	good	Russian	Russian	Russian only

							only	only	
43	31	yes	n/a	Russian	good	good	Mostly other languages, sometimes Russian	Russian only	Russian and other languages equally
44	35	yes	n/a	Russian	fluent	good	Russian only	Russian only	Mostly Russian, sometimes other languages
45	38	yes	n/a	Russian	fluent	good/fluent	Other language only	Russian only	Mostly other languages, sometimes Russian
46	31	yes	n/a	Russian/Tatar	good	good	Russian only	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages
47	47	yes	n/a	Russian	fluent	average	Mostly Russian, sometimes other languages	Russian only	Mostly Russian, sometimes other languages
48	37	yes	n/a	Russian	fluent	fluent	Russian only	Russian only	Mostly Russian, sometimes other languages
49	47	no	18	Russian	fluent	good	Mostly Russian, sometimes other languages	Russian only	Russian only
410	46	no	7 months	Russian	fluent	average	Other language only	Russian only	Russian and other languages equally
411	45	yes	n/a	Russian	fluent	average	Russian only	Russian only	Mostly Russian, sometimes other languages
412	46	yes	n/a	Russian	fluent	beginner	Mostly other languages, sometimes Russian	Russian only	Mostly Russian, sometimes other languages

413	43	yes	n/a	Russian	fluent	fluent	Russian only	Russian only	Russian and other languages equally
414	52	yes	n/a	Russian	fluent	average	Russian only	Russian only	Russian only
415	37	yes	n/a	Russian	fluent	average	Russian only	Russian only	Mostly Russian, sometimes other languages
416	50	yes	n/a	Russian	fluent	average	Russian only	Russian only	Mostly Russian, sometimes other languages
417	31	yes	n/a	Russian	fluent	good	Mostly Russian, sometimes other languages	Russian only	Russian and other languages equally
418	52	no	5	Russian	fluent	good	Russian and other languages equally	Russian only	Mostly Russian, sometimes other languages
419	42	yes	n/a	Russian	fluent	good	Mostly Russian, sometimes other languages	Russian only	Mostly other languages, sometimes Russian
420	46	no	1	Russian	fluent	good	Russian only	Russian only	Russian and other languages equally
421	46	yes	n/a	Russian	fluent	fluent	Russian only	Russian only	Mostly Russian, sometimes other languages
422	31	yes	n/a	Russian/Tatar	good	average	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages	Mostly Russian, sometimes other languages
423	51	yes	n/a	Russian	fluent	good	Russian only	Russian only	Mostly Russian, sometimes other languages

424	51	yes	n/a	Russian	good	beginner	Russian only	Russian only	Russian only
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**Table 11. P-values of different questionnaire factors for Groups 1 and 2**

Parameter	<i>p</i> (Group 1)	<i>p</i> (Group 2)
Age	0.359	0.599
Self-assessed level of English	0.811	0.203
Self-assessed level of Russian	0.291	0.388
Language used with friends	0.799	-
Language spoken to parents	0.013	0.323
Language parents speak to you	0.21	0.525
Watching Russian TV	0.364	0.005
Reading in Russian	0.17	0.388
Expectations 10 years into the future	0.387	0.522

## 4.2 Specific case errors

### 4.2.1 Monolingual controls

The adult control Group (Group 4) made no case errors and used the right case and declension endings in every occasion necessary. While there are multiple translations possible for each sentence, each variation was evaluated solely on whether case is used correctly with nouns needed and appropriate for the participant's chosen interpretation.

For example, it did not affect the results if one participant translated “notebook” from sentence 14 as “тетрадь”, “тетрадка”, “блокнот”, “записная книжка”, or even the more colloquial “записная”, as long as these nouns were then used with an appropriate ending from a possible selection of grammatical endings. In the context of sentence 14, “The daughter wrote in the notebook with a pencil” was translated in multiple different ways, but all case inflections were used correctly:

- |               |                   |                                      |                   |
|---------------|-------------------|--------------------------------------|-------------------|
| 1) Дочь(NOM)  | писала в          | тетрадке(PREP)                       | карандашом(INST)  |
| <i>Doč'</i>   | <i>pisala v</i>   | <i>tetradke</i>                      | <i>karandašom</i> |
| 2) Дочь(NOM)  | оставила          | заметки(ACC) в записной книжке(PREP) |                   |
| <i>Doč'</i>   | <i>ostavila</i>   | <i>zametki v zapisnoj knižke</i>     |                   |
|               | карандашом(INST)  |                                      |                   |
|               | <i>karandašom</i> |                                      |                   |
| 3) Дочка(NOM) | записала в        | тетрадку(ACC)                        | карандашом(INST)  |
| <i>Dočka</i>  | <i>zapisala v</i> | <i>tetradku</i>                      | <i>karandašom</i> |

Similarly, we disregarded translation errors that were made in the task as long as the participant showed general understanding of a sentence and used case inflections that were appropriate for the translation of the sentence that they decided on. Below are several examples from sentence 2, where in example (4) the participant initially translates “left” as in “left the son physically” but still uses appropriate case inflections on nouns throughout, as opposed to example (5), where the participant translates the sentence correctly in terms of meaning and uses one of the appropriate forms:

- |                  |                    |                |                   |            |
|------------------|--------------------|----------------|-------------------|------------|
| 4) Родители(NOM) | ушли от            | сына(GEN),     | не оставив        | ему(DAT)   |
| <i>Roditeli</i>  | <i>ušli ot</i>     | <i>syna,</i>   | <i>ne ostaviv</i> | <i>emu</i> |
| Parents          | left the           | son            | not leaving       | him        |
|                  | даже               | пирожка(GEN)   |                   |            |
|                  | <i>daže</i>        | <i>pirožka</i> |                   |            |
|                  | even               | some cake      |                   |            |
| 5) Родители(NOM) | не оставили        | сыну(DAT)      | торта(GEN)        |            |
| <i>Roditeli</i>  | <i>ne ostavili</i> | <i>synu</i>    | <i>torta</i>      |            |
| Parents          | did not leave      | to son         | cake              |            |

Another example of a situation where a certain atypical use of a case ending was not counted as an error is in the case of the word “ста́туя”. A more colloquial/archaic form of

the word “стату́я” exists in the speech of certain monolinguals; therefore, in sentence 19 “I came to the fountain with a statue” both “со стату́ей” and “со стату́ей” were accepted, because if a heritage speaker makes the same mistake, we should be aware that a form like this could come from monolingual input. While the Nominative case was still the most used by the monolingual controls, this reflects standard use in monolingual Russian; furthermore, Group 4 used the least Nominative case endings across the four groups, showing increased variety of cases and a lack of preference/avoidance strategies; for example, this group also used the most Genitive case endings, the most Instrumental case endings and the most Prepositional case endings.

Group 3, the young monolingual group, while using more Nominative and less of the other cases by a miniscule margin, still performed very similarly to Group 4 and made little to no errors. It is worth noting that this group performed the task in written form, and the only errors made by this group appeared to be orthographic as opposed to morphological and reflect the many schwas present in case endings that make Russian orthography challenging. For example, returning to sentence 14, occasionally a participant would write “в тетраде\*” instead of “в тетради” – this ending, although incorrect, is pronounced the same as the correct one and does not correspond to any other possible case endings for this noun, making this a very likely orthographic error. Notably, however, two participants in Group 3 struggled with the word “полночь” in sentence 1 “The bird sings in the forest at midnight”, even though the needed Accusative form is the same as the Nominative and does not require a separate ending. The endings they used instead were the same as the ones required by a similar word “ночь” with the same stem; these endings technically still exist in standard Russian but are used with the wrong noun here:

- |    |              |             |               |                             |
|----|--------------|-------------|---------------|-----------------------------|
| 6) | Птица(NOM)   | поет        | в лесу(PREP)  | в <b>полуночи</b> *(PREP)   |
|    | <i>Ptica</i> | <i>poet</i> | <i>v lesu</i> | <i>v polunoči</i>           |
|    | The bird     | sings       | in the forest | at midnight                 |
|    |              |             |               |                             |
| 7) | Птица(NOM)   | поет        | в лесу(PREP)  | <b>полночью</b> *(INST)     |
|    | <i>Ptica</i> | <i>poet</i> | <i>v lesu</i> | <i>v polnoč'ju</i>          |
|    | The bird     | sings       | in the forest | at midnight                 |
|    |              |             |               |                             |
| 8) | Птица(NOM)   | поет        | в лесу(PREP)  | около <b>полночи</b> *(GEN) |
|    | <i>Ptica</i> | <i>poet</i> | <i>v lesu</i> | <i>okolo polnoči</i>        |
|    | The bird     | sings       | in the forest | around midnight.            |

These occurrences were counted as errors as they cannot be explained by colloquial forms or orthographic errors that would not be apparent in speech.

#### 4.2.2 Young heritage speakers

In Group 1, all but one participant made case errors in the task, and seven out of nine participants incorrectly replaced an oblique inflection with a nominative inflection on a noun at least once, with most making multiple such errors across multiple oblique cases. The most common type of error was replacing the Genitive case with the Nominative (9):

9) Детям(DAT)	прислали	письмо(ACC)	от соседей*(NOM)
<i>Detjam</i>	<i>prislali</i>	<i>pis'mo</i>	<i>ot sosedj</i>
To children	was sent	a letter	from the neighbours

The least common was the Prepositional → Nominative error (10), and in general there were fewer errors made in the Prepositional case than other oblique cases:

10) Она(NOM)	любит	красивые	цветы(ACC)	в саду*(NOM)
<i>Ona</i>	<i>ljubit</i>	<i>krasivye</i>	<i>cvety</i>	<i>v sad</i>
She	loves	beautiful	flowers	in the garden

Accusative → Nominative errors (11) were a little less common than Genitive → Nominative, with Dative → Nominative (12) and Instrumental → Nominative (13) lying somewhere in the middle:

11) Студенты(NOM)	рассказывают	история*(NOM)	про животных(ACC)
<i>Studenty</i>	<i>rasskazyvajut</i>	<i>istorija</i>	<i>pro životnyh</i>
Students	tell	a story	about animals

12) Мама*(NOM)	понравилась	сказка(NOM)	о зайце(PREP)
<i>Mama</i>	<i>ponravilas'</i>	<i>skazka o</i>	<i>zajce</i>
To Mum	pleased	the fairytale	about the rabbit

13) Учительница(NOM)	подошла	к машине(INST)	и рука*(NOM)	махала
<i>Učitel'nica</i>	<i>podošla</i>	<i>k mašine</i>	<i>i ruka</i>	<i>mahala</i>
The teacher	approached	the car	and hand	waved

However, 6 out of 9 participants also used one oblique case instead of another on multiple occasions, with the most common substitution being Accusative → Genitive (14) often paired in the same structure with Instrumental → Nominative:

14) Бабушка(NOM)	кормит	суп*(NOM)	для ее внука*(GEN)
<i>Babuška</i>	<i>kormit</i>	<i>sup</i>	<i>dlja ee vnuka</i>
Grandma	is feeding	soup	to her grandson

Furthermore, there were two occasions where the Nominative case was replaced with an oblique case incorrectly – Nominative → Dative (15) and Nominative → Instrumental (paired with Dative → Nominative) (16):

15) <b>Детям*(DAT)</b>	получили	открытку
<i>Detjam</i>	<i>polučili</i>	<i>otkrytku</i>
Children	received	a card

16) Инспекторы*(NOM)	были предложены	с чаем*(INST)
<i>Inspektory</i>	<i>byli predloženy</i>	<i>s čajem</i>
Inspectors	were offered	tea

Participants in Group 1 also made 12 case errors that were not linked with replacing one case with another but still resulted in an incorrect case ending. For example, some errors were made in the stress of the noun (17-20):

17) Карточка(NOM)	была дана	<b>дóкторам*(DAT)</b>
<i>Kartočka</i>	<i>byla dana</i>	<i>dóktoram</i>
The card	was given	to the doctors

18) Художники(NOM)	пишут	на <b>стéне*(PREP)</b>
<i>Hudožniki</i>	<i>pišut</i>	<i>na sténe</i>
Painters	are drawing	on the wall

19) Собаки(NOM)	играют	с <b>мя́чем*(INST)</b>	в <b>сне́ге*(PREP)</b>
<i>Sobaki</i>	<i>igrajut</i>	<i>s mjačem</i>	<i>v snége</i>
Dogs	are playing	with a ball	in the snow

20) Дочь(NOM)	написала	в книжке(PREP)	с <b>каранда́шем*(INST)</b>
<i>Doč'</i>	<i>napisala</i>	<i>v knižke</i>	<i>s karandášem</i>
The daughter	wrote	in the notebook	with a pencil

Some other errors were linked with assigning an incorrect gender, and subsequently declension, to an unknown or uncommon word like “гуашь” (21):

21) Художники(NOM)	рисуют	на стене(PREP)	с <b>гуа́жем*(INST)</b>
<i>Hudožniki</i>	<i>risujut</i>	<i>na stene</i>	<i>s guažem</i>
Painters	are drawing	on the wall	with gouache

Some case endings, while used correctly, were paired with an incorrect word order appearing to be a calque from English (22):

22) Пациента*(GEN)	карточка(NOM)	была дана докторам(DAT)
<i>Pacienta</i>	<i>kartočka</i>	<i>byla dana doktoram</i>
The patient's	card	was given to the doctors

Similar cases were found where the Genitive was also changed to the Nominative (23):

23) Журналист*(NOM)	текст(NOM)	понравился
<i>Žurnalist</i>	<i>tekst</i>	<i>ponraviljsja</i>
The journalist's	text	was liked

In some other very similar examples, the Genitive is replaced with a calque of an English word (24, 25):

24) Журналистс*	текст(NOM)	понравился
<i>Žurnalists</i>	<i>tekst</i>	<i>ponraviljsja</i>
The journalist's	text	was liked

25) послали	букет(ACC)	розес*
<i>poslali</i>	<i>buket</i>	<i>rozes</i>
sent	a bouquet	of roses

Finally, there was also one occasion where a participant struggled with a case ending in the Dative form of “читатели” – “читателям”, and ultimately gave up on producing the word, moving on to the next sentence, instead of producing an incorrect ending or using an English calque.

#### 4.2.3 Adult heritage speakers

In Group 2, all participants made errors in the task, including the replacement of different oblique cases with the Nominative multiple times. The most common replacement type, like in Group 1, was Genitive → Nominative (26), with Dative → Nominative (27), Accusative → Nominative (28) and Instrumental → Nominative (29) close behind.

26) Мы(NOM)	приехали в аэропорт(ACC) из-за	водител*ь(NOM)
-------------	--------------------------------	----------------

<i>My</i>	<i>priehali</i>	<i>v aèroport</i>	<i>iz-za</i>	<i>voditel'</i>
We	arrived	at the airport	because of the	driver

27) Карта(NOM)	пациента(GEN)	была дана	доктор*(NOM)
<i>Karta</i>	<i>pacienta</i>	<i>byla dana</i>	<i>doctor</i>
The card	of the patient	was given	to the doctor

28) Маме(DAT)	нравится	сказка(NOM) про	зайчик*(NOM)
<i>Mame</i>	<i>nravitsja</i>	<i>skazka pro</i>	<i>zajčik</i>
To mum	pleases	the fairy tale about	the hare

29) Я(NOM)	подошла	к фонтану(DAT)	с статуя*(NOM)
<i>Ja</i>	<i>podošla</i>	<i>k fontanu</i>	<i>s statuja</i>
I	came	to the fountain	with a statue

Just like in Group 1, the replacements of the Prepositional → Nominative type were less common, but they still occurred occasionally (30):

30) Птица(NOM)	поет	в лес*(NOM)
<i>Ptica</i>	<i>poet</i>	<i>v les</i>
The bird	sings	in the forest

Four out of five participants in Group 2 made oblique case to another oblique case substitutions, with the most common one being Instrumental → Genitive (31):

31) рисуют	на стене(PREP)	краски*(GEN)
<i>risujut</i>	<i>na stene</i>	<i>kraski</i>
draw	on the wall	with paints

There was just one type of the Nominative → oblique case error found in this group, occurring twice (32, 33):

32) Актерам*(DAT)	получили	букет(ACC)	роз(GEN)
<i>Akteram</i>	<i>polučili</i>	<i>buket</i>	<i>roz</i>
Actors	received	a bouquet	of roses

33) Детям*(DAT)	получили	письмо(ACC)	от их соседей(GEN)
<i>Detjam</i>	<i>polučili</i>	<i>pis'mo</i>	<i>ot ih sosedej</i>
Children	received	a letter	from their neighbours

Also, three out of the five participants made other types of errors not linked with case substitutions. Similarly to Group 1, there were errors linked with incorrect stress (34, 35), incorrect declension choice for a noun (36) and a word order error (37):

34) Дочь(NOM)	написала	<b>каранда́шем*</b> (INST)	в дневник(ACC)
<i>Doč'</i>	<i>napisala</i>	<i>karandášem</i>	<i>v dnevnik</i>
The daughter	wrote	with a pencil	in the diary
35) Птица(NOM)	поет	в лесу(PREP)	в <b>но́чи*</b> (PREP)
<i>Ptica</i>	<i>poet</i>	<i>v lesu</i>	<i>v nóči</i>
The bird	sings	in the forest	at night
36) прислали	букеты(ACC)	<b>цвѐт*</b> (GEN)	
<i>prislali</i>	<i>bukety</i>	<i>cvět</i>	
sent	bouquets	of flowers	
37) <b>Пациента*</b> (GEN)	карточка(NOM)	была передана	врачам(DAT)
<i>Pacienta</i>	<i>kartočka</i>	<i>byla peredana</i>	<i>vračam</i>
The patient's	card	was given	to the doctors

The raw numbers and a breakdown of different types of case errors for Groups 1, 2, 3 and 4 can be found in Tables 12 and 13 below.

**Table 12. Oblique to Nominative error breakdown for Groups 1 and 2**

Group	Participant	Gen to Nom	Dat to Nom	Acc to Nom	Inst to Nom	Prep to Nom
1	11	0	0	0	0	0
	12	3	0	1	1	0
	13	2	1	1	1	0
	14	3	3	1	2	1
	15	1	1	0	1	0
	16	0	0	0	0	0
	17	4	3	0	2	1
	18	10	8	5	7	3
	19	1	0	1	0	0
	Total	24	16	9	14	5
2	21	4	1	4	4	3
	22	11	10	7	8	5
	23	7	5	4	5	3
	24	4	2	2	3	0
	25	1	4	0	2	0
		Total	27	22	17	22
	Overall total	51	38	26	36	16

Group	Participant	Acc to Gen	Dat to Gen	Inst to Gen	Acc to Dat	Nom to Dat	Gen to Prep	Dat to Acc	Nom to Inst	Dat to Prep	Acc to Inst	Dat to Inst	Prep to Gen	Other
1	11	0	0	0	0	0	0	0	0	0	0	0	0	2
	12	2	1	0	0	0	0	0	0	0	0	0	0	1
	13	0	0	0	1	0	1	0	0	0	1	0	0	0

	14	0	0	0	1	0	1	0	0	0	0	0	0	3
	15	1	1	0	0	0	0	1	1	0	0	0	0	2
	16	0	0	0	0	0	0	0	0	0	0	0	0	0
	17	1	1	1	0	1	0	0	0	0	0	0	0	3
	18	0	0	0	0	0	0	0	0	1	0	0	0	1
	19	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>12</b>
2	21	0	0	1	0	0	0	0	0	0	0	0	0	0
	22	0	0	0	0	0	0	0	0	0	0	0	0	0
	23	0	1	0	1	0	0	0	0	0	0	1	0	1
	24	0	0	0	0	0	0	0	0	0	0	0	1	1
	25	0	0	1	0	2	0	1	0	0	0	0	0	2
	<b>Total</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>
	<b>Overall total</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>16</b>

**Table 13. Other error types breakdown for Groups 1 and 2**

## 5. DISCUSSION

### 5.1 Research Question 1

**In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from that of age matched L1 Russian speakers ordinarily resident in Russia?**

In this study, we compared young (10-13 years) heritage speakers with their peers in Russia, as well as adult heritage speakers (36-51 years) with an age-matched adult group in Russia. From our findings, it is evident that the heritage speaker groups make considerably more case errors than the controls, with the exception of one young heritage speaker that made no errors at all, which appears to be an outlying result. The most common type of error is changing an oblique case ending to the Nominative, a finding which is partially consistent with Polinsky (2018)'s previous statement on Russian case discussed in Section 2, such as that Russian heritage speakers tend to use the Nominative case for all oblique cases. This is definitely not seen in Groups 3 and 4, where participants use all six cases confidently and in appropriate conditions, even if the Nominative is the most common in the stimuli due to the nature of Russian sentence-writing. Furthermore, unlike monolingual controls, heritage speakers replace oblique cases with one another in a variety of ways (10 different types of substitutions, to be precise), as well as rarely replacing the Nominative with an oblique case inappropriately. Contrastingly, monolingual controls make no such substitutions regardless of the context. Finally, heritage speakers make other types of case errors, such as applying the wrong stress or declension on a word that they rarely use but which is common and easy for the ordinary Russian speaker. Overall, the differences in case use between monolingual controls and heritage speakers are clearly visible, which this study confirms.

**5.2 Research Question 2**

**In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from young children to adults?**

From the testing in this study, it is evident that while both children and adults in heritage speaker groups make case errors, the overall case accuracy of adults is noticeably lower. While the adults were a smaller group than the children, they still managed to make a similar variety of errors, even introducing new error types like Dative → Instrumental and Prepositional → Genitive. This shows us that the case system potentially deteriorates with age and as heritage speakers move out of their Russian-speaking family or household that they spend their childhood in, as well as moving away from community sources of Russian language education. This gives us a significant reason to develop separate Russian heritage language resources for older heritage speakers, as their case system can easily become more vulnerable than that of their younger counterparts.

### **5.3 Research Question 3**

**In young and adult heritage speakers, does the use of grammatical cases in Russian nouns differ from that of heritage speakers in previously studied countries like the US?**

One of the main sources of previous data and findings in terms of Russian heritage case systems comes from Polinsky's studies in the US summarised in Polinsky (2018) and Montrul and Polinsky (2021). In Section 2, we already discussed some of the main features of heritage case in American Russian. In the present study, we were able to make comparisons with these previous statements about the case system; the only exception was point (d) in Section 2.5.3, where dative inflections from perceptive verbs were limited to nouns in the pre-verbal NP, as we did not analyse word order extensively enough to uphold or contradict such claims. The first claim that we were able to partially verify in our findings is the frequent replacement of oblique case endings with Nominative ones (Section 2.5.3 (a)) – this was observed in both young and adult speakers. However, none of the speakers completely abandoned oblique cases, or all but the Accusative, like Polinsky claims, except for only one speaker in Group 2. Instead, we see that the speakers occasionally make such errors but still use correct oblique cases on average 70-80% of the time. As a result, we do not see the so-called “marked-unmarked paradigm” that Polinsky describes. The second claim – that the indirect object is rendered by the Accusative instead of the Dative (Section 2.5.3(b)) – is not supported by our findings. In this task, the Dative was replaced by the accusative only once for all participants in each group, and twice overall. With the overall quantity and variety of errors displayed, we would have been able to see plenty of examples of such behaviour

should it have been present in our participants. Overall, these findings are not fully consistent with Polinsky's image of American Russian case systems, and are more consistent with Kagan and Dillon's (2003) characteristic of heritage speakers as being incompetent in oblique cases. Moreover, even this characteristic appears too harsh given that most of the participants in this study successfully used different oblique cases on a significant number of occasions in their testing

#### **5.4 Research Question 4**

##### **Does the way in which Russian is used outside of the school setting affect case markings on nouns in young and adult heritage speakers?**

In the present study, we surveyed participants on several background factors, including their age, how long they have been living in Russia/the UK, the language(s) they speak at home and with friends, how often they read or watch content in Russian, as well as their view on the future of their Russian language. From a statistical standpoint, we did not find any correlation between the participants' results and their answers to these questions except for two occasions: Language(s) spoken to parents for Group 1 and Russian TV for Group 2. Firstly, this shows us that for younger heritage speakers, the home environment is a significant factor in their case system maintenance, while for older speakers it is their choice of language in entertainment that matters more, as they move away from their households and enter adulthood. Secondly, we see that self-rating in Russian and English language level, as well as future perspectives on your language, do not reflect the real state of affairs, potentially meaning that language confidence might not play a serious role in the preservation of the case system. Finally, we see that language(s) spoken with friends do not play a statistically significant role in either group's performance; however, this information was still important to gather, as we see that all adult participants and most young participants in the UK use only English or mostly English to converse with friends, demonstrating the language use shift that happens when children enter education and then transition into adult life.

#### **5.5 Methodology advantages**

##### **5.5.1 The translation task**

Using a translation task instead of the “frog methodology” used in earlier studies, as was expected, rendered fuller and more varied data. Looking at Table 4 again, we see different case use, with the task eliciting at least some of each case from each participant unless a particular participant was completely unable to use it (Total uses in heritage speaker groups 1 and 2: Nominative = 278; Genitive = 130; Dative = 146; Accusative = 199; Instrumental = 112; Prepositional = 94). From the average number used we can see that all groups used each case except for a small number of exceptions, with the smallest average number of a specific case used per task being 6 for Prepositional case in Group 2 – this still gives us a total of 30 instances to look at even for such a small group of five people for just this one case.

### **5.5.2 Researcher prompts**

The only prompts from the researcher included the translation of separate nouns in the nominative case on demand, which could potentially make participants simply copy what the researcher says. However, in reality, we saw that participants in Groups 3 and 4, upon receiving translation of a word in Nominative case as a prompt produced the right case inflections, including oblique ones. The same happened for those in Group 1 and 2 who were competent in specific cases, while those who weren’t just used the Nominative. Consequently, we can conclude that the prompts did not interfere with the case testing.

### **5.5.3 Untimed task**

Not timing the task could potentially make the task too long and tiring for both the participants, the educational institutions, and the researchers. However, such timing allowed participants to think, just like it is possible to think a little in a real conversation, but most people still completed the task relatively quickly and none took longer than 17 minutes, meaning that the timing did not significantly affect the logistics of the task.

## **5.6 Methodology limitations**

### **5.6.1 Number of participants**

One of the most significant limitations of this study is the small number of its participants, especially in Group 2 (Group 1 = 9 participants, Group 2 = 5 participants, Group 3 = 13 participants, Group 4 = 20 participants). Group 2 has the narrowest demographic to recruit (adult heritage speakers), even more so than Group 1 (young heritage speakers), as the former cannot be recruited through educational institutions or clubs. Typically, adult heritage speakers of Russian are less likely to maintain connections with the Russian community, except for their own families, so snowballing and Internet advertisement in local communities did not yield higher participation. On one hand, such small numbers are not significant enough when it comes to statistical tests, making the results less convincing. On the other hand, such study scale is common in this specific field: for example, Isurin and Ivanova-Sullivan (2008) used seven heritage speakers, with an L2 learner group of 11 and a control group of five people. Similarly, in her study of gender morphology in heritage speakers, Polinsky (2008) used only 12 participants in total. This also reflects the importance of studying individual variation in heritage languages, as such a number of participants, while becoming a limitation for statistical analysis, still allows to discover a lot of important patterns. In the future, however, the field might benefit from better recruitment pools of heritage speakers as more members of the community become familiar with this research and become gradually more willing to get involved and spread the word.

### **5.6.2 Case function variety**

While the task allowed to test each case, declension, grammatical gender and number of nouns several times, it was still not possible to test all specific case functions enough times without making this specific type of task extremely long and tiring, especially for young participants. In Table 1 we see that some cases have at least twenty different types of function, and with 24 sentences covering 6 cases it is impossible to fit in every single one. A shorter task type like grammatical decision could be more beneficial for fitting in many more functions into each testing session for each participant.

### **5.6.3 Written testing**

Due to the measles outbreak in the educational institution that the researcher was working with in Russia, Group 3 of young Russian residents had to perform the task in

written form, automatically making its comparison with other groups less beneficial. In theory, this group could make more errors in speech than in writing. However, according to the previous literature, monolinguals of such age are expected to almost never make case errors, which is what we ended up seeing in the writing task. Since the purpose of this group was also consistent with Group 4, the adult group, the two groups still worked well as controls for the heritage speaker groups.

#### **5.6.4 Interference from English**

In any translation task, including the one used in the present study, the language that is translated from could potentially interfere with the language translated into. This could make errors and calques more likely, and a task with only Russian involved could be beneficial in removing this kind of influence. From this point of view, the “frog methodology” is more useful as it only uses images and stimuli, avoiding L2 influence. On the other hand, especially in the case of Russian heritage speakers, it is virtually impossible to remove English as an influence from their surroundings. In fact, this is precisely the environment in which the heritage grammar forms, and in which a heritage speaker has to exist for their whole life. For example, even though the researcher completed testing with younger heritage speakers during their school day in a Russian community school, most children still did not only speak Russian before and after testing, as they conversed with friends and often even addressed their parents in English, despite the teachers encouraging them not to. On balance, different tasks could be used to see if removing English from testing reduces the number of errors and calques, but studies such as the present one are still beneficial for imitating the bilingual environment in which a heritage speaker inevitably exists.

## **6. CONCLUSION**

In the present study, we have attempted to investigate the case system in the heritage grammars of young and adult Russian speakers residing in the UK and their monolingual controls in Russia. The translation task selected for the study performed well for the purposes of our research, providing us with large and varied output from the participants. We have focused specifically on the UK, the country where such research has not been completed before, proposing that UK residents might display different heritage behaviours. This proposal was confirmed, with speakers not simply reducing their case system to the marked-unmarked paradigm but using a variety of oblique cases. At the same time, some similarities, like the excessive use of the Nominative case, were found. The present study also aimed to investigate the potential differences between case inflections of younger and older speakers, hypothesising that moving away from a Russian-speaking home/community/education makes an impact on heritage speakers as they enter adulthood. This hypothesis was also confirmed, as adult heritage speakers made more case errors than younger speakers did, introducing some new error types in the process. We also aimed to look at the effects of different background and lifestyle factors on case inflection accuracy. While only two of these factors – household language for younger speakers and watching Russian TV for older speakers – were found to affect results in a statistically significant way, we gained an important insight into the perception of the heritage language by their speakers and the way in which it is used in and outside the home, further stressing the importance of the family-community-formal education triad. In the future, the case system and other morphosyntactic features of the heritage grammar should be investigated further and with bigger participant numbers, with more studies hopefully also completed in the UK specifically, as this study has shown that this country can become an important playing field for investigating heritage languages – the missing step in the world of bilingualism.

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## **APPENDIX A: Sample participant consent forms and info sheets**

## ADULT PARTICIPANTS CONSENT FORM

Central University Research Ethics Committee approval reference: [TBC]

Purpose of Study: An investigation of changes in the use of Russian case depending on age and country of residence.

**Please initial  
each box if you  
agree with the  
statement**

I confirm that I have read and understand the information sheet for the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw the data I contribute for up to seven days after it was collected without giving any reason.

I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.

I understand I will not be identifiable from any publications or presentations.

I consent to being audio recorded.

I understand how my audio recording will be used in the research process and that it will be erased after a transcription is complete.

I understand how to raise a concern or make a complaint.

I agree to take part.

YES / NO

\_\_\_\_\_  
Name of participant

\_\_\_\_\_  
dd/mm/yy

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of researcher

\_\_\_\_\_  
dd/mm/yy

\_\_\_\_\_  
Signature

## An investigation of Russian case use in children and adults

### PARENT/GUARDIAN CONSENT FORM

Central University Research Ethics Committee approval reference: [TBC]

- Your child's school has agreed to take part in a study run by Oxford University looking at the use of case morphology in Russian-speaking children.
- If your child takes part, a researcher would come and visit them at school to have them complete a short questionnaire and a verbal task.
- **If you are happy for your child to take part, please fill in the form below and return it to your child's class teacher as soon as possible.**
- To find out more about the study, please read the attached information sheet. You can also e-mail me at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk) if you have any questions.

Name of child: \_\_\_\_\_  
Forename Surname

Name of school: \_\_\_\_\_

I have read and understood the details of the above study, and have had the opportunity to ask questions and discuss the study with others. I have received satisfactory answers to my questions. I understand that the project has received ethics clearance through the University of Oxford's ethical approval process for research involving human participants, and I understand who will have access to the data, how it will be stored and what will happen to the data at the end of the study. I understand that participation is voluntary and that my child and I are free to withdraw at any time, without giving any reason and without my child's education being affected in any way. I understand how to raise a concern or make a complaint.

I agree for my child to be audio recorded

Yes  No

I understand how audio recordings will be used in research outputs

Yes  No

**I give permission for my child to take part in the above study.**

Name of parent/guardian: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of researcher: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**An investigation of Russian case use in children and adults**

**YOUNG PARTICIPANTS ASSENT FORM**

Child/Young Person to circle all they agree with:

- Has somebody else explained this project to you? Yes/No
- Do you understand what this project is about? Yes/No
- Have you asked all the questions you want? Yes/No
- Have you had your questions answered in a way you understand? Yes/No
- Do you understand it's OK to stop taking part at any time? Yes/No
- Are you happy to take part? Yes/No
- Are you happy for your voice to be recorded? Yes/No

**If any answers are “no” or you don’t want to take part, that’s OK! No one will be cross with you.**

If you do want to take part, please write your name below.

Your name \_\_\_\_\_

Date \_\_\_\_\_

The researcher who explained this project to you needs to sign too:

Print Name \_\_\_\_\_

Sign \_\_\_\_\_

Date \_\_\_\_\_

**Thank you!**

**An investigation of Russian case use in children and adults**

**PARENT/GUARDIAN CONSENT FORM**

Central University Research Ethics Committee approval reference: [TBC]

- Your child’s school has agreed to take part in a study run by Oxford University looking at the use of case morphology in Russian-speaking children.
- If your child takes part, a researcher would come and visit them at school to have them complete a short questionnaire and a verbal task.
- **If you are happy for your child to take part, please fill in the form below and return it to your child’s class teacher as soon as possible.**
- To find out more about the study, please read the attached information sheet. You can also e-mail me at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk) if you have any questions.

Name of child: \_\_\_\_\_  
Forename Surname

Name of school: \_\_\_\_\_

I have read and understood the details of the above study, and have had the opportunity to ask questions and discuss the study with others. I have received satisfactory answers to my questions. I understand that the project has received ethics clearance through the University of Oxford’s ethical approval process for research involving human participants, and I understand who will have access to the data, how it will be stored and what will happen to the data at the end of the study. I understand that participation is voluntary and that my child and I are free to withdraw at any time, without giving any reason and without my child’s education being affected in any way. I understand how to raise a concern or make a complaint.

I agree for my child to be audio recorded Yes  No   
I understand how audio recordings will be used in research outputs Yes  No

**I give permission for my child to take part in the above study.**

Name of parent/guardian: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name of researcher: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## **An investigation of Russian case use in children and adults**

### **ADULT PARTICIPANT INFORMATION SHEET**

Central University Research Ethics Committee approval reference: [TBC]

#### ***General Information***

The aim of this research is to find out how the way in which the Russian language of someone living in Russia is different to the language of someone who was born in the United Kingdom or moved there in early childhood and is surrounded by English as the dominant language. This study will also look at how the use of Russian changes when a Russian speaker enters adulthood both in Russia and in the UK. This knowledge will help us design better materials and strategies for teaching Russian children and adults resident abroad who are interested in preserving their heritage language, both in school education and beyond.

I appreciate your interest in participating in this online task. You have been invited to participate as you are either:

- A Russian-speaking adult between 30 and 60 years of age that was born in the UK (or arrived there before the age of 3)
- A Russian-speaking adult between 30 and 60 years of age that resides in Russia.

We are recruiting 20 people from each of the above groups to participate in the study.

Please read through this information before agreeing to participate.

You may ask any questions before deciding to take part by contacting the researcher (details below). The Principal Researcher is Anastasia Karamzina, who is attached to the Department of Education at the University of Oxford. This research is being completed under the supervision of Hamish Chalmers.

#### ***What will happen if I take part in the research?***

If you are happy to take part in this research, please sign the consent form and the preliminary questionnaire and email both to me at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk). We will then arrange an online meeting on Microsoft Teams where you will need to complete a short verbal task. During the task I will need to record your responses on audio using the Microsoft Teams recording feature; please make sure your camera is switched off for the duration of the session. I will notify you when recording begins and ends and will not record anything beyond your task responses. The task should take around 15 minutes; after the meeting you will not need to attend any further sessions or complete any more documents/questionnaires. Upon completion of the task, you will receive an official certificate to signify that you have contributed to this study.

The recording of your voice will be stored securely on a password-protected OneDrive and will be erased as soon as a manual transcription is complete; only I (the student researcher) will have access to the online meeting and the audio recording, and only the manual transcription will be used in further analysis.

***Do I have to take part?***

No. Please note that participation is voluntary. You can withdraw yourself from the research, without giving a reason and without negative consequences by advising me of this decision. You can withdraw any information you have contributed to the research for up to seven days after it has been collected. If you withdraw before this date, all the data you contribute will be erased and will no longer be used in the study. However, after this date your data will be anonymised, and I will no longer be able to remove it from the study as it will be impossible to identify.

***How will my data be used?***

Results are kept strictly confidential, and only the people doing the research, or helping with the research, can look at the data. Only a number will be used to identify you, and all information and results will be kept in a locked file cabinet and on a secure OneDrive. An audio recording of your voice will be securely stored on the OneDrive and encrypted; the recording will be erased as soon as a manual transcription of it is complete.

The findings from the research will be written up in my master's dissertation and may be used in academic publications and conference presentations in the future. As your name, contact details and voice recordings will not be preserved anywhere in the data, you will not be identifiable from these findings, and no one will be able to trace the findings back to you.

All research data and records, except for the audio recordings, will be stored for 3 years after publication or public release of the work of the research. Third parties may be given access to research data for monitoring and/or audit of the research, or for data storage purposes.

***Data Protection***

The University of Oxford is the data controller with respect to your personal data and, as such, will determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest. Further information about your rights with respect to your personal data is available from <https://compliance.admin.ox.ac.uk/individual-rights>.

***Who has reviewed this research?***

This research has been reviewed by, and received ethics clearance through, a subcommittee of the University of Oxford Central University Research Ethics Committee [number TBC].

***Who do I contact if I have a concern or I wish to complain?***

If you have a concern about any aspect of this research, please speak to Anastasia Karamzina at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk). If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

The Chair, **Social Sciences & Humanities Interdivisional Research Ethics Committee**;  
Email: [ethics@socsci.ox.ac.uk](mailto:ethics@socsci.ox.ac.uk); Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

***Thank you for reading – please ask me any questions.***

## **An investigation of Russian case use in children and adults**

### **PARENTS/GUARDIANS INFORMATION SHEET**

Central University Research Ethics Committee Approval Reference: [TBC]

Your child's school has agreed to take part in a research study investigating the use of cases in Russian-speaking children and adults residing in Russia and the United Kingdom. We would like to invite your child to be part of this research. We very much hope you would like your child to take part, but before you decide, it is important that you understand why the research is being done and what it will involve.

#### ***Why is this research being conducted?***

According to the Office for National Statistics, there were 73000 Russians as well as at least 41500 Russian speakers residing in the United Kingdom as of 2020. Many Russian speakers continue to come to the country, bringing their children with them or starting their family in the UK. The main goal of this research is to find out how the way in which the Russian language of someone living in Russia is different to the language of someone who was born in the United Kingdom or moved there in early childhood and is surrounded by English as the dominant language. This study will also look at how the use of Russian changes when a Russian speaker enters adulthood depending on whether they reside in Russia or the United Kingdom. This knowledge will help us design better materials and strategies for teaching Russian children and adults resident abroad who are interested in preserving their heritage language, both in school education and beyond.

#### ***Why has my child been invited to be involved in this research?***

We are inviting your child to take part because they are either:

- a young Russian-speaking person, aged between 11 and 13, attending a Russian community school in the United Kingdom

OR

- a young Russian-speaking person, aged between 11 and 13, attending a school in Russia.

We are inviting 20 young people from each of the above groups to take part.

#### ***Does my child have to be involved?***

No. You can ask questions about the research before deciding whether to allow your child to participate. If you do agree to participation, you may withdraw your child and their data at any time, without giving a reason and without any effect on their education, by advising the school or the researcher of this decision. The deadline by which you can withdraw any information they have contributed to the research is seven days after the data is collected. If you decide to withdraw within this period, all of the data from your child will be removed, permanently deleted, and will no longer be used for this study. However, after the deadline has passed, your child's data will be anonymised with their name, and it will no longer be possible to withdraw it as any identifiable personal details will be removed.

#### ***What will happen if my child takes part?***

First, your child will need to sign an assent form to indicate they are happy to take part; you will also need to sign a consent form and then have both forms returned to your child's teacher. Your child will only take part in the research if both of these forms have been signed and returned.

During a school day, your child will be asked to go to a separate classroom, where they will need to fill in a short questionnaire about their use of the Russian language. The questionnaire will require them to write their name on it; the name will be associated with a special participant number, and one week after data collection is complete, I will remove their name from it, and it will not be accessible to anyone after this point. Your child will then be given a sheet with sentences in simple English on a sheet of paper and will be asked to complete a verbal task using these sentences; the task will not be timed. I will record their responses using an audio recorder. The questionnaire and the task should take 20 minutes or less; your child will not need to come back for any other tasks after the questionnaire and the verbal task are complete. Upon completion of the task, the child will receive an official certificate to signify that they have contributed to this study.

***What are the possible disadvantages and risks in taking part?***

There are no physical risks for your child associated with this task, and they will only be required to write and talk for a short period of time. I will make it clear to the child that if they feel uncomfortable/tired or require any other help at any point during the session, they can tell me or their teacher at any time and withdraw their consent to participate if they no longer want to be part of the study. Your child's responses will also have no effect on their school studies or grades. I will be recording your child's voice during the verbal task; this recording will only be kept until I complete a transcription of their responses. It will be placed in a secure encrypted file on a password-protected OneDrive and will be deleted as soon as the transcription is complete so it will no longer be accessible to anyone including myself.

***Are there any benefits in taking part?***

While there are no immediate benefits to you in participating, it is hoped that this research will help us learn more about how the use of the Russian language changes when the speaker lives abroad from early childhood. This will benefit many Russian speakers living around the world who want to continue speaking Russian as part of their heritage and to communicate with their families and friends.

***What information will be collected and how will it be stored?***

Withing the questionnaire, I will be collecting data about the frequency and contexts within which your child uses the Russian language. The verbal task will not require any personal information to be collected. Your child will need to put their name on the questionnaire so that I am able to identify their data in case you or your child wish to withdraw it within seven days of data collection. After seven days pass, your child's name will be removed and their data will only be identified by a number.

Results are kept strictly confidential, and only the people doing the research, or helping with the research, can look at the data. Only a number will be used to identify your child, and all information and results will be kept in a locked file cabinet and on a secure OneDrive. I will make sure that the voice recording is securely stored on the OneDrive and encrypted; the recording will be erased as soon as I write a transcription of it. I will not mention your child's name, the names of other students, the name of the school or the teacher when I write about my research.

All research data and records, except for the audio recordings, will be stored for 3 years after publication or public release of the work of the research. Third parties may be given access to research data for monitoring and/or audit of the research, or for data storage purposes.

***Will the research be published? Could my child be identified from any publications or other research outputs?***

The findings from the research will be written up in my master's dissertation and may be used in academic publications and conference presentations in the future. As your child's name, the name of the school and voice recordings will not be preserved anywhere in the data, they will not be identifiable from these findings.

***Data Protection***

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your child's personal data is used in the research.

The University will process your child's personal data for the purpose of the research outlined above. Research is a task that we perform in the public interest.

Further information about your rights with respect to your personal data is available from <https://compliance.web.ox.ac.uk/individual-rights>.

***Who has reviewed this research?***

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: **TBC**).

***Who is organising and funding the research?***

This study is being organised as part of my master's dissertation under the supervision of Hamish Chalmers in the Department of Education at the University of Oxford.

***Who do I contact if I have a concern about the research, or I wish to complain?***

If you have a concern about any aspect of this research, please contact the researcher at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk). If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

The Chair, **Social Sciences & Humanities Interdivisional Research Ethics Committee**;

Email: [ethics@socsci.ox.ac.uk](mailto:ethics@socsci.ox.ac.uk); Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

***What should I do next?***

Please fill in the enclosed consent form, have your child sign the attached assent form, and return both to your child's class teacher if you would like your child to take part in this research. Please remember that you may withdraw your child at any time, without affecting their education and without giving a reason, by notifying the researcher, and their data can be withdrawn from the study for up to seven days after the data has been collected.

***Further Information and Contact Details***

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Anastasia Karamzina

Department of Education

University of Oxford, 15 Norham Gardens, OX2 6PY

[anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk)

***Thank you for reading – please ask me any questions.***

## **An investigation of Russian case use in children and adults**

### **YOUNG PARTICIPANTS INFORMATION SHEET**

Central University Research Ethics Committee Approval Reference: [TBC]

I am inviting you to join in a research study. My name is Anastasia Karamzina, I am a student at the University of Oxford in the Department of Education, and I am conducting this research as part of my master's dissertation.

Before you decide if you would like to join in, it's important to understand what the research is about, why we're doing it and what it would involve for you. Please read and think about this leaflet carefully. Please feel free to talk to your family, friends, your teacher or myself about it if you want. If anything isn't clear or you have more questions you can ask your parent/guardian to give me a call or contact me by email and I can discuss it with you and your parent/guardian.

#### ***Why is this research being done?***

The main goal of this research is to find out how the way in which the Russian language of someone living in Russia is different to the language of someone who was born in the United Kingdom or moved there in early childhood and is surrounded by English as the dominant language. This study will also look at how the use of Russian changes when a Russian speaker enters adulthood both in Russia and in the UK. This knowledge will help us design better materials and strategies for teaching Russian children and adults resident abroad who are interested in preserving their heritage language, both in school education and beyond.

#### ***Do I have to take part?***

No - It is up to you to decide if you want to take part in this research. You are free to stop taking part at any time during the research without giving a reason by telling your teacher, me or your parent/guardian. You do not have to say why and this will not affect your education.

If you decide to stop, no one will be upset with you. If you do not wish to join in, you will remain in the classroom while other participating students are completing the task.

If you choose to participate but later decide that you no longer want your data to be used in the research, you will be able to withdraw your data from the study for up to seven days after I collect it – after this date, all data will be anonymised and I will no longer be able to remove it.

#### ***What will happen if I take part in the research?***

First, you will need to sign an assent form to tell me you are happy to take part; you will also need to take a consent form home to your parent/guardian for them to sign, and then return both forms to your teacher.

After you have done that, during one of the school days you will be asked to go to a separate classroom, where you will need to fill in a short questionnaire about your use of the Russian language. The questionnaire will require you to write your name on it; your name will be associated with a special participant number, and when data collection is complete, I will remove your name from it seven days later and it will not be accessible to anyone after this point. Please note that after seven days since our session had passed you will no longer be able to ask for your responses to be withdrawn from the analysis as they will not have your name on them anymore.

You will then be given a task consisting of sentences in English on a sheet of paper and will be asked to give your responses verbally; the task will not be timed. I will record your responses using an audio

recorder. The questionnaire and the task should take 20 minutes or less; you will be free to go after you have completed them and will not need to come back for any other tasks.

***What are the possible disadvantages and risks in taking part?***

There are no physical risks for you associated with this task, and you will only be required to write and talk for a short period of time. If you feel uncomfortable/tired or require any other help at any point during the session, you can tell me or your teacher at any time. Remember that you have the right to stop the session and withdraw your consent to participate if you no longer want to be part of the study, even if you have already started on the questionnaire/task or completed them.

Your responses will also have no effect on your school studies or grades. The aim of this study is not to assess your personal academic attainment, and it is not a school exam or test; you cannot do 'badly' on the task and there are no right or wrong answers.

I will be recording your voice during the verbal task; this recording will only be kept until I complete a transcription of your responses. It will be placed in a secure encrypted file on a password-protected OneDrive and will be deleted as soon as the transcription is complete so it will no longer be accessible to anyone including myself.

***Are there any benefits in taking part?***

While there are no immediate benefits to you in participating, it is hoped that this research will help us learn more about how the use of the Russian language changes when the speaker lives abroad from early childhood. This will benefit many Russian speakers living around the world who want to continue speaking Russian as part of their heritage and to communicate with their families and friends.

***What information will be collected and what happens to the results of the research?***

Results are kept strictly confidential, and only the people doing the research, or helping with the research, can look at the data. Only a number will be used to identify you, and all information and results will be kept in a locked file cabinet and on a secure OneDrive. I will make sure that the recording of your voice is securely stored on the OneDrive and encrypted; the recording will be erased as soon as I write a transcription of it. I will not mention your name, the names of other students, the name of your school or your teacher when I write about my research. No one will know that you have taken part unless you tell them yourself.

The findings from the research will be written up in my master's dissertation and may be used in academic publications and conference presentations in the future. As your name, contact details and voice recordings will not be preserved anywhere in the data, you will not be identifiable from these findings, and no one will be able to trace the findings back to you unless you tell them yourself.

All research data and records, except for the audio recordings, will be stored for 3 years after publication or public release of the work of the research. Third parties may be given access to research data for monitoring and/or audit of the research, or for data storage purposes.

***Data Protection***

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the research.

The University will process your personal data for the purpose of the research outlined above.

Research is a task that we perform in the public interest.

Further information about your rights with respect to your personal data is available from

<https://compliance.web.ox.ac.uk/individual-rights>.

***Will anyone else know I'm doing this?***

We will keep your information private. This means we will only tell those who have a need or right to know, such as the Principal Investigator or your parent/guardian. We will only share information that has your name and contact details removed.

***What if I don't want to take part in the research anymore?***

Just tell your parent/guardian, your teacher or me (the researcher) that you don't want to take part. You don't have to give a reason and no one will be annoyed with you. It is YOUR choice. However, you need to remember that all names will be removed from the data seven days after the session and from then on I will no longer be able to find your responses and remove them.

***Who is organising and funding the research?***

This study is being organised as part of my master's dissertation under the supervision of Hamish Chalmers in the Department of Education at the University of Oxford.

***Who has reviewed the research?***

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: **TBC**).

***What do I do now?***

Please tell your parents, guardians and/or teacher whether you are happy to take part. Your parent/guardian should sign the consent form and you should sign the assent form for you to take part. Both of these forms should be returned to your teacher.

***What if there is a problem or something goes wrong?***

Please tell us if you are worried about any part of this research, by contacting the researcher at [anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk). You may also talk to your teacher/parent/guardian who will let the researcher know. If you are still unhappy or wish to make a complaint, either you or your teacher/parent/guardian can contact the chair of the Research Ethics Committee at the University of Oxford:

The Chair, **Social Sciences & Humanities Interdivisional Research Ethics Committee**;  
Email: [ethics@socsci.ox.ac.uk](mailto:ethics@socsci.ox.ac.uk); Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

***Further Information and Contact Details***

You (or your teacher/parent/guardian) can contact me at any point before and after your participation in the research if you have any questions, queries, or concerns.

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

Anastasia Karamzina  
Department of Education  
University of Oxford, 15 Norham Gardens, OX2 6PY  
[anastasia.karamzina@wolfson.ox.ac.uk](mailto:anastasia.karamzina@wolfson.ox.ac.uk)

***Thank you for reading – please ask me any questions.***

## APPENDIX B: Sample questionnaires

Participant name:

Participant number: [to be filled in by the researcher]

### YOUNG PARTICIPANT QUESTIONNAIRE (UK)

**Please answer these questions about your language use.**

How old are you?

Were you born in the UK?  YES  NO

If not, at what age did you arrive in the UK?

*How would you rate your level of Russian?*  Poor  Average  Good  Fluent

How would you rate your level of English?  Poor  Average  Good  Fluent

Which language(s) do your parents use to speak to you?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Which language(s) do you use to speak to your parents?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Which language(s) do you use to speak to your friends?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Do you watch Russian TV?  YES  NO

Do you read in Russian outside of school?  YES  NO

Do you think you will speak Russian a lot when you grow up?  YES  NO

**Thank you for your answers!**

Participant name:

Participant number: [to be filled in by the researcher]

**ADULT PARTICIPANT QUESTIONNAIRE (UK)**

**Please answer these questions about your language use.**

How old are you?

Were you born in the UK?  YES  NO

If not, at what age did you arrive in the UK?

How would you rate your level of Russian?  Poor  Average  Good  Fluent

How would you rate your level of English?  Poor  Average  Good  Fluent

Which language(s) do your family/household members use to speak to you?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Which language(s) do you use to speak to your family/household members?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Which language(s) do you use to speak to your friends?

Russian only  Mostly Russian with some English  Russian and English

English only  Mostly English with some Russian  Other

Do you watch Russian TV?  YES  NO

Do you read in Russian in your spare time?  YES  NO

Do you see yourself speaking Russian a lot in the next 20 years?  YES  NO

**Thank you for your answers!**

Participant name:

Participant number: [to be filled in by the researcher]

**YOUNG PARTICIPANT QUESTIONNAIRE (RUSSIA)**

**Please answer these questions about your language use.**

How old are you?

Were you born in Russia?  YES  NO

If not, at what age did you arrive in Russia?

What is your native language?

Russian

Russian and another language(s) – please specify:

Other - please specify:

How would you rate your level of Russian?  Poor  Average  Good  Fluent

How would you rate your level of English?  Poor  Average  Good  Fluent

Which language(s) do your parents use to speak to you?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

Which language(s) do you use to speak to your parents?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

Which language(s) do you use to speak to your friends?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

**Thank you for your answers!**

Participant name:

Participant number: [to be filled in by the researcher]

**ADULT PARTICIPANT QUESTIONNAIRE (RUSSIA)**

**Please answer these questions about your language use.**

How old are you?

Were you born in Russia?  YES  NO

If not, at what age did you arrive in Russia?

What is your native language?

Russian

Russian and another language(s) – please specify:

Other - please specify:

How would you rate your level of Russian?  Poor  Average  Good  Fluent

How would you rate your level of English?  Poor  Average  Good  Fluent

Which language(s) do your family/household members use to speak to you?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

Which language(s) do you use to speak to your parents?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

Which language(s) do you use to speak to your friends?

- Russian only
- Mostly Russian with another language(s) used occasionally
- Russian and another language(s) in equal parts
- Mostly another language(s) with some Russian
- Another language(s) only

**Thank you for your answers!**

## APPENDIX C: Sample Verbal Task

### ORAL TRANSLATION TASK

**Please read each sentence and tell me how it translates into Russian.  
Read each sentence carefully and don't rush – there is no time limit on this task.**

1. The bird sings in the forest at midnight.
2. The parents left the son without cake.
3. Mum enjoyed the fairy tale about the rabbit.
4. The painters are drawing on walls with gouache.
5. The students were told stories about animals.
6. The journalist's text was liked by the readers.
7. The actors were sent bouquets of roses.
8. Grandma is feeding soup to her grandson.
9. The children were sent a letter from their neighbours.
10. The teacher approached the car and waved her hand.
11. My brother has a dream of becoming a doctor
12. The girl caught a lot of fish with her dad.

13. The sailors miss their family and think about home.
14. The daughter wrote in the notebook with a pencil.
15. The dogs are playing with the ball in the snow.
16. The guests were late because of the ice on the road.
17. The inspectors were offered tea without sugar.
18. We got to the airport thanks to the driver.
19. I came to the fountain with a statue.
20. The patient's card was given to the doctors.
21. The translator uses the dictionary to write in her document.
22. Mum and dad finished their work.
23. The cat was taken to the veterinarian because of the pain.
24. She likes the beautiful flowers in the garden.

## APPENDIX D: Sample transcript of verbal task

### TRANSCRIPTION 21

- 1) Птица поет в лес в двенадцать часов ночи
- 2) Родители оставили сын без торт
- 3) Маме нравится сказка про зайчик
- 4) Художники рисуют на стене краски
- 5) Студентам сказали сказку про животных
- 6) Читатели любят текст журналиста
- 7) Актерам прислали букет роз
- 8) Бабушка кормит суп внук
- 9) Дети получили письмо от их соседи
- 10) Учитель идет к машине и махает рука
- 11) Мой брат хочет стать врач
- 12) Девочка поймала много рыбы с папой
- 13) Моряки скучают по семье и думают о дом
- 14) Дочка написала с карандашом блокнот
- 15) Собаки играют мячом в снег
- 16) Гости опоздали, потому что лед на дороге
- 17) Инспекторам предложили чай без сахар
- 18) Мы приехали в аэропорт из-за водитель
- 19) Я подошла к фонтану с статуя
- 20) Карта пациента была дана доктор
- 21) Переводчик использует словарь, чтобы писать в документ
- 22) Мама и папа закончили ихняя работа
- 23) Кота повезли к ветеринару, потому что у него боль
- 24) Она любит красивые цветы в огороде

## APPENDIX E. Research Ethics Committee Approval

### Research ethics approval

#### Research title:

The case of case: a morphological investigation of Russian heritage speakers in the UK

#### Research ethics reference:

EDUC\_C1A\_23\_072

The above application has been considered on behalf of the Education Departmental Research Ethics Committee (DREC) in accordance with the University's procedures for ethical approval of all research involving human participants.

I am pleased to confirm that, on the basis of the information provided to the DREC, ethics approval has now been granted for this study.

Please note the following:

**Personal data:** It is the responsibility of the PI to ensure that all personal data collected during the project is managed in accordance with the University's [guidance and legal requirements](#).

**In-person activities:** Any data collection involving in-person interactions with participants must have an up-to-date fieldwork risk assessment in place; further guidance is available from the Safety Office's [website](#).

**Amendments:** Please notify the committee if you intend to make any amendments to the information in your ethics application as submitted at date of this approval, as all changes must receive ethical approval prior to implementation. The amendment form is available on the [SSH IDREC webpage](#).

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to [staff.curec@education.ox.ac.uk](mailto:staff.curec@education.ox.ac.uk) / [student.curec@education.ox.ac.uk](mailto:student.curec@education.ox.ac.uk) or [ethics@socsci.ox.ac.uk](mailto:ethics@socsci.ox.ac.uk).

Yours sincerely

Liam Francis Gearon  
DREC Chair