The Sociolinguistic Situation of the Dargwa in Dagestan

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Abstract

This paper presents the results of sociolinguistic research conducted in 2016 and 2017 among the Dargwa people living in Dagestan. The internal structure of the Dargwa speech varieties has been heavily debated: There are over 60 varieties of Dargwa, many of which have been claimed to be separate languages. There is also disagreement regarding how endangered the language is. The goals of our research were to investigate the use of the Dargwa language in both urban and rural areas, attitudes towards the Dargwa language, the vitality of the Dargwa language, levels of bilingualism and multilingualism, and levels of intelligibility between varieties of Dargwa. We conclude that Dargwa is a single macrolanguage consisting of twelve languages. In spite of the fact that the language is used in the schools, we also conclude that it is threatened. Questionnaires, observations and recorded text tests were employed in the research.
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1 Introduction

Decisions regarding language policy, language revitalization and maintenance, and language documentation need to be based on sound sociolinguistic research covering topics including language use and attitudes, multilingualism, levels of oral proficiency and literacy, and variation and intelligibility between varieties of the language. Unfortunately, in many situations much of this information is incomplete at best. This is especially true in regions with high levels of linguistic diversity. One of these regions is the Republic of Dagestan, a constituent part of Russia. With a reported population just over 2.9 million according to the 2010 census (Russian State Statistics Service 2011:4.4), Dagestan is home to 25 languages with distinct ISO 639-3 codes (Simons and Fennig 2018); these languages are from three different families (Nakh-Daghestanian, Indo-European and Turkic).

In this paper we examine the sociolinguistic situation of Dargwa [dar], one of these 25 languages, with special emphasis on the identification of language varieties and the level of language endangerment. There is a general lack of information in these two areas for most of the languages of Dagestan. Regarding language identification, there is disagreement on how many languages are indigenous to Dagestan. For example, Moseley (2010) lists Inkhokvari as a separate language, but it does not have a separate ISO 639-3 code. Simons and Fennig (2018) list it as a dialect of Khvarshi [khv], while Hammarström et al. (2018) unite the two varieties in the single language Khwarshi-INKHOQWARI. Similarly, Salminen (2010) notes that Tokita, recognized as a dialect of Karata [kpt] by both Simons and Fennig (2018) and Hammarström et al. (2018), might be a separate language; while Dargwa [dar] could represent up to 18 languages. Salminen (2010:43) claims that the boundaries between varieties in this region seem to be clear, with the problematic cases a result of “the lack of information rather than inconclusive criteria.”

The second area suffering from lack of information is the determination of language endangerment. Many of the languages in Dagestan are endangered to some degree, but there is disagreement between researchers regarding how endangered a given language is. This can be seen by comparing the level of endangerment assigned to the languages of Dagestan by Moseley (2010) and Simons and Fennig (2018). Moseley (2010) uses the six-point scale of endangerment developed under the auspices of UNESCO (UNESCO Ad Hoc Expert Group 2003), while Simons and Fennig (2018) use the 13-point EGIDS (Expanded Graded Intergenerational Disruption Scale) to categorize the degree of language endangerment. Simons and Fennig (2018) categorize eleven as either 6b (Threatened) or 7 (Shifting); all eleven are categorized as Definitely Endangered by Moseley (2010). According to Lewis and Simons (2010), however, 6b (Threatened) on the EGIDS scale should correspond to Vulnerable, not Definitely Endangered, on the UNESCO scale.

At the other end of the spectrum, Simons and Fennig (2018) categorize four languages as either 3 (Trade) or 4 (Educational). While Lewis and Simons (2010) claim both levels should correspond to Safe on the UNESCO scale, Moseley (2010) classifies them as Vulnerable. Some of this mismatch could be due to how the criteria are applied. For example, Avar [ava] is categorized as 3 (Trade) by Simons and Fennig (2018:42), which should correspond with Safe on the UNESCO scale. Salminen (2010:42), however, justifies categorizing it as Vulnerable on the UNESCO scale since it is secondary to Russian in the region. Given the UNESCO description of Vulnerable as “most children speak the language, but it may be restricted to certain domains (e.g., home)” (UNESCO Ad Hoc Expert Group 2003), this justification is based on the assumption that a secondary status implies restricted domains of use. It is possible, however, that both the primary and secondary languages are used in all domains, or that both are restricted in their domains (as in the case of diglossia). Since the actual domains of use are unknown for either Russian or Avar, it is unclear what level of endangerment should be assigned to Avar. The

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1 In all references to the Russian censuses, we give volume and section numbers instead of page numbers.
2 This includes Chechen [che], even though its primary identity is with the Chechen Republic, because it is included as a ‘statutory language of provincial identity’ for Dagestan (Simons and Fennig 2018).
3 The EGIDS represents an expansion of the GIDS (Graded Intergenerational Disruption Scale) developed by Fishman (1991).
situation for Dargwa [dar], Lak [lak] and Lezgi [lez] is similar. All three languages are categorized as level 4 (Educational) by Simons and Fennig (2018), which should correspond to Safe on the UNESCO scale, but Moseley (2010) categorizes them as Vulnerable. Unfortunately, we do not have sufficient information regarding literacy transmission or the domains of use to resolve these differences.

Between the group of eleven most endangered languages and the group of four least endangered languages, there are ten languages in which the correlation between the two systems is non-systematic. These ten languages are listed in table 1.

Table 1. Levels of endangerment of select Dagestani languages

<table>
<thead>
<tr>
<th>Language</th>
<th>Code</th>
<th>EGIDS</th>
<th>UNESCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kumyk</td>
<td>kum</td>
<td>5 (Written)</td>
<td>Vulnerable</td>
</tr>
<tr>
<td>Tabassaran</td>
<td>tab</td>
<td>5 (Written)</td>
<td>Vulnerable</td>
</tr>
<tr>
<td>Bezhta</td>
<td>kap</td>
<td>5 (Written)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Juhuri</td>
<td>jdt</td>
<td>5 (Written)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Nogai</td>
<td>nog</td>
<td>5 (Written)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Rutul</td>
<td>rut</td>
<td>5 (Written)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Tsakhur</td>
<td>tkr</td>
<td>5 (Written)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Agul</td>
<td>agx</td>
<td>6a (Vigorous)</td>
<td>Vulnerable</td>
</tr>
<tr>
<td>Bagvalal</td>
<td>kva</td>
<td>6a (Vigorous)</td>
<td>Def Endangered</td>
</tr>
<tr>
<td>Karata</td>
<td>kpt</td>
<td>6a (Vigorous)</td>
<td>Def Endangered</td>
</tr>
</tbody>
</table>

Of the seven languages categorized as 5 (Written) by Simons and Fennig (2018) using the EGIDS scale, two are categorized as Vulnerable by Moseley (2010) using the UNESCO scale, while the other five are categorized as Definitely Endangered. On the other hand, of the three languages categorized as 6a (Vigorous) by Simons and Fennig (2018) using the EGIDS scale, one is categorized as Vulnerable by Moseley (2010) using the UNESCO scale, while the other two are categorized as Definitely Endangered. As a result, Moseley (2010) claims that Agul is less endangered than Bezhta, Juhuri, Nogai, Rutul and Tsakhur, while Simons and Fennig (2018) claim it is more endangered. We believe the most reasonable explanation for the inconsistency is a lack of information regarding factors like intergenerational transmission and domains of use.

In this paper we present the results of sociolinguistic research on Dargwa [dar], one of the 25 Dagestani languages. The focus of the research is both on factors like transmission and domains of use, as well as on intelligibility between speakers of different varieties of Dargwa. After presenting general information on Dargwa in section 2, we give an overview of our methodology in section 3. In section 4, we present our findings, before concluding with a discussion of the implications of our findings in section 5.

2 Background

The Dargwa people are one of the ethnic groups indigenous to the Caucasus. After a general introduction to the Dargwa people and their culture in section 2.1, we give a more fine-grained demographic profile based on the 2010 Russian census in section 2.2. Then in section 2.3 we give more information about the Dargwa. Finally, we present the goals of our research in section 2.4.

2.1 The Dargwa people

The Dargwa people refer to themselves as Dargwa, Darkkwa, Darga, Dargo or Dargan, although they have commonly been referred to as Dargin, based on the Russian name for them: darginskij
They are located primarily in Akushin, Dakhadayev, Kaitag, Levashin, and Sergokala districts (Musaev 1995), and in portions of neighboring districts in southern Dagestan, inland from the Caspian Sea. The five core districts are shown in map 1 (where they are identified as Dargin).

Map 1. Ethnic groups of the Caucasus

There are also significant numbers of Dargwa in the urban centers of Makhachkala, Kaspiysk, and Izberbash (Musaev 1995:59).

While the traditional homeland of the Dargwa is largely mountainous, from the 1950s to the 1970s Dargwa and Avar have migrated to the plains (Musaev 1995:59), settling in territory traditionally claimed by the Kumyk, a situation facilitated by the fact that the Avar and Dargwa have filled many of the positions of power in Dagestan. This has raised tensions between the Dargwa (and Avar), and the Kumyk (Arutunov 1998:107, Goldenberg 1994:204).

In addition to this movement from the mountains to the plains, there has been a more general movement from rural to urban settings due to the harsh conditions of rural life, lack of employment opportunities and a lack of access to higher education. This movement is not limited to Dargwa and has led to an increase in urban population as shown in table 2, based on data from the 1989, 2002 and 2010 censuses (Russian State Statistics Service 2004:1.2, 2011:1.4). The first three columns give the actual figures for rural and urban population in Dagestan, while the final two columns show the percentage increase for both settings.

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4 Transliteration of Cyrillic other than in proper names follows the ISO/R 9 system, both in the body of the paper and the references.
5 We are using ‘district’ to translate the Russian word raion (район).
6 Goldenberg (1994:204) traces this movement from the 1950s to the 1970s, while Yemelianova (2002) traces it to the 1920s and 1930s.
Table 2. Changes in rural and urban population in Dagestan

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>1,022,855</td>
<td>1,473,954</td>
</tr>
<tr>
<td>Urban</td>
<td>779,333</td>
<td>1,102,577</td>
</tr>
</tbody>
</table>

The rural population actually grew more quickly than did the urban population between 1989 and 2002. Because of this, the percentage of people living in urban areas in Dagestan decreased from 43.2 percent in 1989 to 42.8 percent in 2002. But the movement to urban areas dramatically increased between 2002 and 2010 so that the percentage of people living in urban areas increased to 45.2 percent in 2010.

The increase in urbanization is especially pronounced for Makhachkala, as shown in table 3, based on data from the 1989, 2002 and 2010 censuses (Russian State Statistics Service 2004:1.2, 2004:1.4, 2011:1.5), which shows the changes for Dagestan as a whole and for the city of Makhachkala.

Table 3. Change in population for Dagestan and Makhachkala

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dagestan</td>
<td>1,802,188</td>
<td>2,576,531</td>
</tr>
<tr>
<td>Makhachkala</td>
<td>314,767</td>
<td>462,412</td>
</tr>
</tbody>
</table>

From 1989 to 2002, the population increased only slightly more in Makhachkala than in Dagestan as a whole. From 2002 to 2010, however, the population of Makhachkala increased 50.7 percent as opposed to 13.0 percent for Dagestan as a whole. As shown in section 4.1.2, this movement includes the Dargwa and has definite implications for language use and transmission.

According to the 2010 census, 589,386 Dargwa live in Russia (Russian State Statistics Service 2011:4.1), of whom over 490,000 live in Dagestan. The only ethnic group in Dagestan with more members is the Avar. There is evidence that the Dargwa, along with other Caucasian groups including the Avar, Lezgi, and Lak, have been in the region for at least 8,000 years (Cornell 2005:5). Like most Dagestani groups, they are known for their animal husbandry (especially sheep-raising); they are also known for their work with gold (Akiner 1986:143). Their conversion to Islam began in the eighth century CE (Akiner 1986:143), and most of the Dargwa are Sunni Muslim (Akiner 1986:147), although many Dargwa practice Sufism as well (Yemelianova 2002:149). The Dargwa are considered to be moderately observant (Yemelianova 2002:149).

Like other groups in the North Caucasus, the Dargwa did not conceive of themselves as a single ethnic group before the 1917 Revolution. Instead, their identity was tied to the village, on the one hand, and to the entire Caucasus region, on the other hand. That is, the Dargwa referred to themselves either with their village name or, together with all other Caucasian peoples living in the mountains, as mountaineers (Wixman 1980:100–102). Clans, a group of closely related families, were also an important point of identification. The clans would sometimes voluntarily unite as ‘free societies’ which, in turn, sometimes formed unions that in some cases crossed ethnic lines (Wixman 1980:105–106). Islam has also played a significant role in Dargwa identity: Along with other northeast Caucasian ethnic groups, the Dargwa practiced a conservative form of Islam, and Classical Arabic was used as a language of wider communication, at least among leaders, as late as the early 20th CE (Wixman 1980:103–104).

7 While there are more Lezgi than Dargwa in the Caucasus as a whole, the Lezgi are divided between Dagestan and Azerbaijan. Thus, there are more Dargwa than Lezgi in Dagestan (Cornell 2005:258).

8 Akiner (1986:147) reports there are two small Shi’a communities among the Dargwa, but the two villages named (Kurush and Mizkindzha) are located considerably south of the Dargwa region.
This complex set of identities resulted in very weak or even non-existent identities as an ethnic group. Dargwa saw themselves as members of a village, a clan, Caucasian mountain culture, and Islam. What outsiders identify as the Dargwa ethnic group was not salient to the Dargwa.

The Dargwa people are made up of a number of subgroups. Two of these, the Kaitag and the Kubachi, were traditionally considered to speak separate languages; they were listed as separate ethnic groups in the 1926 census (Akiner 1986:253, 259). The Kaitag are especially important in the history of the Dargwa people because they formed a political entity in the fourteenth century known as the Utsmiyat. The rule of the Utsmiyat was gradually extended throughout most of the Dargwa region until it was abolished by the Russian government in 1820 (Akiner 1986:143).

Even during the time of the Utsmiyat, the most important political unit was the village. Villages are governed by an assembly and a council of elders (Bennigsen and Wimbush 1986:171), and are made up of extended families, within which endogamy is practiced (Bennigsen and Wimbush 1986:172). While Soviet policy was successful in destroying many of the traditional customs in the North Caucasus that were felt to undermine the attempt to integrate the North Caucasians into the broader Soviet society, including bride price, the levirate, and polygamy (Bennigsen 1972:156), the family and clan continue to play a central role in Dargwa society even today.

The development of Literary Dargwa by the Soviets played a crucial role in establishing the modern Dargwa ethnic identity. In Tsarist Russia, the local languages were not developed as literary languages because native speakers felt that reading and writing should be done in Classical Arabic (Wixman 1980:114). A triglossic situation existed in which the local languages were used for oral purposes, Classical Arabic was used for literacy, and both Classical Arabic and Kumyk (a Turkic language long-established in Dagestan) were used as languages of wider communication (Wixman 1980:115). By 1900, Russian had begun to be used as both a literary language and a language of wider communication by intellectuals, but there was a consensus that Russian would not be accepted by the masses, so Kumyk should continue to be used as the language of wider communication (Wixman 1984:116–117).

The Soviets changed this policy and established eleven literary languages in Dagestan, one of which was Dargwa. There were at least two goals in this effort. First, the hope was that establishing literary languages would create multiple nationalities such that people would see themselves as Dargwa (or Avar or Lezgi, and so on) rather than as Mountaineers or Muslim. In theory, such discrete entities would be easier to administer (Wixman 1980:125–126). Second, the Soviet state wanted a modern and educated population, and using the local languages for early education would facilitate this (Wixman 1980:127). Ultimately, Literary Dargwa was also used in schools for the Kaitag and Kubachi, making it possible to administer these two numerically smaller groups as part of the larger Dargwa ethnic community.

The use of Dargwa and other local literary languages in the schools was likely rooted in the consensus that Russian would not be accepted by the masses. But study of Russian was mandated by decree in 1939 (Wixman 1980:148). A year earlier, the Latin script (which had been used since 1928) was replaced by a Cyrillic script (Catford 1977:296) to facilitate the transition to literacy in Russian. In the 1950s, education in Dargwa was available through fourth grade, but the central role of Russian in the schools had also been established. Once the Dargwa were no longer seen as a threat to Soviet control, and proficiency in Russian was adequate for education, state support for literacy in Dargwa was curtailed. By the beginning of the 1970s, use of Dargwa was limited to grades one and two (Wixman 1980:131).

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9 Here and elsewhere in this paper we use the English spellings suggested by Koryakov (2012) for varieties of Dargwa.

10 The history of writing in Dargwa can be traced at least to the late-15th century CE (Musaev 1995), or possibly to the mid-13th century CE (Catford 1977:297). As part of the broader Islamic scholarship, the language was written using Arabic script. Little, however, was published in Dargwa before the Soviet era.
2.2 Demographics from the 2010 census

The distribution of Dargwa people among the eight federal districts is shown in table 4 (Russian State Statistics Service 2011:4.4).\textsuperscript{11}

<table>
<thead>
<tr>
<th>District Name</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Caucasus: Dagestan</td>
<td>490,384</td>
<td>82.7%</td>
</tr>
<tr>
<td>North Caucasus: Outside Dagestan</td>
<td>51,168</td>
<td>8.6%</td>
</tr>
<tr>
<td>Southern</td>
<td>24,815</td>
<td>4.2%</td>
</tr>
<tr>
<td>Central (including Moscow)</td>
<td>10,095</td>
<td>1.7%</td>
</tr>
<tr>
<td>Other five districts</td>
<td>16,426</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Of the 102,500 Dargwa who live outside Dagestan, over 51,000 live in other entities within the North Caucasus District, and almost 25,000 live in the neighboring Southern District. Thus, 95.5% of all Dargwa people in Russia live in the North Caucasus and Southern Districts.

The 2010 figure of approximately 590,000 Dargwa represents a 15.7 percent increase over the 2002 figure of 510,000 and a 68.6 percent increase over the 1989 figure of 350,000.\textsuperscript{12} The 15.7 percent increase is the second highest level of increase among all the 22 most populous ethnicities in Dagestan (Dianov and Antonova 2012:73), although it is impossible to tell how much of the increase is due to actual increases in population versus differences in reporting.

The results reported in the 2010 census give a fairly comprehensive picture of many aspects of the Dargwa people. The median age of Dargwa is 26.9, considerably lower than the overall national average of 38.0. In Dagestan, only the Chechen, Avar and Kumyk have a lower median age (Dianov and Antonova 2012:73). Related to this low median age, the fertility rate is higher than that among most ethnicities: only the Chechen and Ingush have a higher percentage of women with three or more children. The Dargwa have an average of 1975 children born per 1000 women, exceeded only by the Ingush (2257) and the Chechen (2196). This is 34.5 percent higher than the average among all ethnicities of 1469 children born per 1000 women (Dianov and Antonova 2012:76).

The number of monoethnic Dargwa households increased more quickly than the national average. While the number of monoethnic households in all ethnic groups decreased slightly between 2002 and 2010,\textsuperscript{13} the number of Dargwa monoethnic households increased from 99,000 to 121,000 in the same time period. This increase of 22 percent was exceeded in Dagestan only by the Ingush and the Kumyk communities (Dianov and Antonova 2012:77). The 22 percent increase was also higher than the 15.7 percent increase in population among the Dargwa, suggesting that the percentage of Dargwa living in monoethnic households is increasing. The size of monoethnic households is also higher than the national average: While the overall size of monoethnic households is 3.1, the average Dargwa monoethnic household is 4.2 (Dianov and Antonova 2012:77).

While levels of education increased among the Dargwa between 2002 and 2010, they are still below the national average. The percentage of Dargwa who have not finished 9 years of schooling is considerably higher than the national average: 10.8 percent versus 6.0 percent. Conversely, the percentage of Dargwa who have a university degree is considerably lower than the national average: 15.6 percent versus 23.4 percent (Dianov and Antonova 2012:80–81). More generally, the percentage of Dargwa who do not finish a program of study beyond the first 11 years of schooling (that is, general, or

\textsuperscript{11} The total number of Dargwa according to table 4 is 592,888 as opposed to the 589,386 reported for the entire group. These figures are based on two separate tables in the census report; we have no explanation for the difference.

\textsuperscript{12} Population figures from Dianov and Antonova (2012:72).

\textsuperscript{13} The number of monoethnic households was 34,901,000 in 2002; this figure dropped to 34,031,000 in 2010 (Dianov and Antonova 2012:76).
common education) is far higher than the national average: 62.2 percent versus 35.2 percent. The educational level of the Dargwa is also lower than that of the Avar or Lezgi.

In terms of employment, agriculture is much more important for the Dargwa than for the average Russian; 18.6 Dargwa are involved in agriculture as opposed to the national average of 10.8 percent. More Dargwa are involved in non-farm labor than agriculture, 29.1 percent versus 18.6 percent. However, the percentage of Dargwa involved in non-farm labor is considerably less than the national average: 29.1 percent versus 48.0 percent. Other common sources of income are dependency on someone else (43.3 percent), government allowance (26.1 percent), and pensions (14.2 percent) (Dianov and Antonova 2012:81–83). The vast majority of Dargwa report they can speak Russian: 90.1 percent living in Dagestan and 96.5 percent living outside of Dagestan report they speak Russian (Russian State Statistics Service 2011:4.4). The difference is not surprising given that people living outside the region generally have greater opportunity and need to speak Russian. But even within Dagestan, the percentage of Dargwa who report they can speak Russian indicates a high level of proficiency in Russian. This proficiency in Russian does not, however, mean that the Dargwa do not also speak Dargwa; 82.7 percent of ethnic Dargwa speak Dargwa (Dianov and Antonova 2012:78–79). The special status of Dargwa is reflected in the fact that 98.0 percent of Dargwa report that Dargwa is their native language, while only 1.6 percent report Russian as their native language.

2.3 Dargwa language research


Daniel and Lander (2002:150) observe that Caucasian languages appear to be well-documented, especially when compared with other regions of the world. The long and only partial list of research in Dargwa given above certainly makes it appear that Dargwa is well-documented. However, most research has dealt only with Literary Dargwa. It has been claimed that there are more than 16 major varieties of Dargwa, which can be subdivided into 70 sub-varieties (Musaev 1995). Even ignoring varieties like Kaitag and Kubachi, which were considered to be separate languages in the 1926 census, some of the core Dargwa varieties are claimed to be mutually unintelligible (Wixman 1980:93). Many of these are poorly documented due to sociopolitical considerations (Daniel and Lander 2002:150). As noted in section 2.1, the Soviet government wanted to establish a single Dargwa group for ease of administration. This was accomplished by emphasizing the constructed literary language which was used in schools, the media, and the arts. This meant that even varieties such as Kaitag and Kubachi remained unwritten and were later designated as dialects of Dargwa (Arutiunov 1998:99).

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14 These percentages add up to over 100 percent because many people receive income from more than one source.
15 These percentages are based on totals of figures for Dargwa in each of the constituent entities of the Russian Federation.
Documentation of non-literary dialects includes descriptions of Chirag (Ganenkov 2016), Icari (Sumbatova and Mulatov 2003, Matalov 1992), Kaitag (Temirbulatova 2004), Kubachi (Abakarova 2002, Vamling and Tshantouria 1991, Magometov 1963), Megeb (Magometov 1982), Tanti (Sumbatova and Lander 2014), and Shiri and Sanzhi (DOBES 2017). In addition, there are studies comparing dialectal variation on specific topics (Gaprindashvili 1957, 1956, Khaydakov 1985). In spite of the overall lack of documentation, there have been multiple discussions of subgroupings within the Dargwic group dating back to Uslar (1892). More recent discussions include Bykhovskaya (1940b), Gaprindashvili (1952), S. Abdullaev (1954), and Gasanova (1971). Most of these studies make a basic two-way distinction between ‘Aqusha-type’ and ‘Tsudakhar-type’ varieties according to the presence or absence of geminate consonants (Koryakov 2012). Gasanova (1971), however, breaks with this tradition and posits Aqusha and Tsudakhar as simply two of thirteen dialect groups.

Most of the discussions of subgroupings are based on either geography or the analysis of grammatical features (Koryakov 2013). Basing subgroupings on geography is problematic due to migration patterns, while basing them on grammatical features is problematic due to the possibility of such similarities arising from contact (Ross 2005:21). In an attempt to place the grouping of Dargwic varieties on a more secure methodological footing, Koryakov (2006, 2012, 2013), groups the varieties on the basis of an analysis of wordlists systematically elicited throughout the region. The analysis of Koryakov (2006) is based on a limited number of wordlists, augmented by data from previous analyses. This analysis, which organizes 54 varieties into 17 languages, is quite close to that of Gasanova (1971). Koryakov (2012, 2013) is more comprehensive, as it is based on wordlists from 34 locations. In this analysis, a number of varieties that were previously given language status are grouped together due to high levels of lexical similarity, resulting in fourteen languages. This is further reduced to twelve languages in Koryakov (2016a, 2016b). The locations of these twelve languages are shown in map 2.

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16 While Koryakov (2006, 2012, 2013) refers to ‘cognates’, the similar forms are actually ‘resemblant forms’ which may be due to borrowing (Pawley 2005:75). Until the comparative method can be applied to the forms in question, the percentages reported are tentative. Even with this shortcoming, the results reported by Koryakov (2006, 2012, 2013) represent a major advance over previous attempts to establish language boundaries.

17 Two of the additional languages involve varieties not included in Gasanova (1971); the other two additional languages involve splitting varieties in two of the groups from Gasanova (1971).
The relationships between the twelve languages are shown in figure 1. In this figure, more closely related languages are organized into groups, and the percentages of lexical similarity between languages and groups are indicated.
Ten of the twelve languages are organized in two main groups: North-Central (with six members) and South (with four members), with two languages (Chiraq and Kaitag) outside either group. According to Koryakov (2012), the South group should be represented as a linkage\(^{18}\) rather than with a more traditional tree structure.

A major consideration when determining language boundaries based on lexical similarity is what percentages to use to differentiate between language and dialect. It has been proposed that two varieties can be assumed to be different languages if they exhibit lexical similarity of less than 60 percent (Blair 1990:23) or 70 percent (ILAC 1989). Neither Blair (1990) nor ILAC (1989), however, propose an upper threshold above which two varieties can be assumed to be dialects of a single language. Instead, both state that in cases where two varieties exhibit levels of similarity above the lower threshold, research into intelligibility is needed to determine whether they are dialects or separate languages.

In the case of Dargwa, lexical similarity is the only measure we have for the determination of the status of varieties as separate languages or as dialects of a single language. Koryakov (2012, 2013, 2016a) uses a figure of 90 percent as a general threshold to differentiate between language and dialect. That is, if two varieties have a lexical similarity of less than 90 percent, they are considered to be separate languages. Using a threshold of 80 percent\(^{19}\) (Hammarström, personal communication), Hammarström et al. (2018) propose that Dargwa includes only five languages. Chirag and Kaitag are separate languages, as is Kubachi. The North-Central group of languages is considered to constitute a single language, while all the members of the South group of languages other than Kubachi are also considered to constitute a single language. The status of Kubachi as a separate language rather than a dialect of South Dargwa is based on percentages with SW Dargwa and Sanzhi-Itsari between 77 and 80.5 percent. The relatively high percentage with Amuzgi-Shiri (88.3 percent) could be due to chance retention or contact (Hammarström, personal communication). The decision not to include Kubachi as part of South Dargwa also reflects its traditional status as a separate language.

Independent of the number of languages and dialects that make up the Dargwic group, there is the question of the status and intelligibility of the literary dialect. In 1930 the Soviets decided to base Literary Dargwa on the Aqusha variety. This decision was made for two reasons. First, Akusha was the most important of the three major trading centers (Akusha, Urakhi and Tsudahar) (Wixman 1980:153, DOBES 2017:Language). Second, the phonemic inventory of Aqusha was felt to be simplest of the Dargwa varieties since it lacked gemination and labialization found in some other varieties (DOBES 2017:Language).\(^{20}\) As shown in figure 1, a large number of the varieties of Dargwa are in the same language group as Aqusha. However, South Dargwa, Chirag, Kaitag and Kubachi varieties are not. It has been claimed that speakers of the southern varieties approach Literary Dargwa as though it is a foreign language (DOBES 2017:Language).

While the question of language identity has been a major source of controversy, the question of the level of vitality of Dargwa has attracted much less attention. Kibrik (1991) did not include it in a list of all endangered languages in the USSR shortly before the dissolution of the USSR. More recently, Moseley (2010) categorizes Dargwa as Vulnerable, while Simons and Fennig (2018) categorize it as Educational, which should correspond with the designation Safe in the UNESCO schema followed by Moseley (2010). It is possible that these differences are superficial. As noted in section 1, Salminen (2010) justifies the designation of Avar as Vulnerable on the basis that it is secondary to Russian in the region. Since both

\(^{18}\) Linkages include both chains, where each language is bordered by a language on each side; and networks, where each language may be bordered by multiple languages (Ross 1988:8).

\(^{19}\) Swadesh (1952:460) suggests that 81 percent is the dividing line between language and dialect.

\(^{20}\) According to Hewitt (1981:199), for most of the Caucasian languages, the most important consideration used to decide what variety to use as the basis for the literary form was which had the simplest phonemic inventory. The pragmatic basis for this decision seems to have been that Caucasian languages have large phonemic inventories, and phonemes that could not be represented by single letters in the Russian Cyrillic alphabet were represented by digraphs and trigraphs rather than by modified characters Catford (1977). Basing the literary form on the variety with the simplest phonemic inventory minimized the use of digraphs and trigraphs. In the case of Dargwa, the situation is complicated by the fact that while Aqusha does not have gemination or labialization, it does include voiced affricates not found in other varieties. In spite of this, the overall phonemic inventory is probably simplest in Aqusha.
Avar and Dargwa are official state languages used in education, it is possible that a strict application of the UNESCO guidelines for the designation of Safe versus Vulnerable would result in it being categorized as Safe by Moseley (2010). In summary, it appears that while Dargwa is not clearly endangered, there are factors that indicate it might be facing obstacles.

2.4 Research goals

The objectives of this study were to investigate the following areas:
- the use of the Dargwa language in both urban and rural areas,
- attitudes towards the Dargwa language,
- the vitality of the Dargwa language,
- levels of bilingualism and multilingualism,
- levels of intelligibility between varieties of Dargwa, including Literary Dargwa.

3 Methodology

Our research was conducted under the auspices of Slovo (a Russian NGO involved in language research and development) in two stages. From July 12 to July 23, 2016, we investigated language use, attitudes, vitality and multilingualism. In stage two, conducted in 2017, researchers investigated levels of intelligibility between five varieties of Dargwa, including Literary Dargwa. Vladislav Malyshev, Viktoria Malysheva, Irina Novaya and Angelina Gutz participated in both stages. They were joined in stage one by Anastasiya Panina.

3.1 Stage 1 methodology

The primary tool used during stage 1 was a questionnaire, supplemented by observation and informal conversations. The questionnaire began with general demographic information, followed by questions regarding spheres of language use, intergenerational transmission of Dargwa, and attitudes towards Dargwa. (The full Russian questionnaire and an English translation are given in Appendix A.) The questionnaire was administered in Russian, which was not a problem given the high level of Russian language proficiency in the Dargwa communities (see section 2.2). For some respondents it was given orally, while others responded in writing on a paper copy. The decision as to how to administer the questionnaire was made on an individual basis according to what seemed most agreeable to the respondent.

We administered the questionnaire to 41 speakers of Dargwa, 24 women and 17 men, ranging in age from 15 to 78. Most interviews were conducted in Dargwa villages. The villages are listed in table 5, along with the variety of Dargwa spoken in each village, based on Koryakov (2016b).

<table>
<thead>
<tr>
<th>Village</th>
<th>Variety of Dargwa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akusha</td>
<td>Aqusha</td>
</tr>
<tr>
<td>Levashi</td>
<td>Aqusha</td>
</tr>
<tr>
<td>Segokala</td>
<td>Urakhi</td>
</tr>
<tr>
<td>Kuppa</td>
<td>Tsudaqar</td>
</tr>
<tr>
<td>Khadzhalmakhi</td>
<td>Tsudaqar</td>
</tr>
<tr>
<td>Tashkapur</td>
<td>Tsudaqar</td>
</tr>
<tr>
<td>Gapshima</td>
<td>Gapshima</td>
</tr>
<tr>
<td>Shukty</td>
<td>Gapshima</td>
</tr>
</tbody>
</table>
All but one of the villages are shown in Koryakov (2016b) (see map 2 above); Tashkapur, the one village not shown, is located across the river from Khadzhalmakhi.

For both cultural and political reasons, respondents were chosen by the village administrators. We took care to explain to the administrators that we wanted ‘average’ people, since their first inclination was to identify the most highly educated residents to work with us. We also emphasized the importance of selecting participants of both genders and from a range of ages. This resulted in a reasonably random stratified sample in most villages.

Additional interviews were conducted in Makhachkala with speakers from a number of Dargwa varieties. These speakers were identified through conversations with a Dargwa librarian at the Dagestani Academy of Sciences and members of the Writers’ Union of Dagestan.

The distribution of all respondents by gender and age is given in table 6 arranged by Dargwa variety as determined by Koryakov (2016b).

<table>
<thead>
<tr>
<th>Variety of Dargwa</th>
<th>Gender</th>
<th>Age†</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>&lt;30</td>
</tr>
<tr>
<td>Aqusha</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Urakhi</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Murego-Gubden</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Gapshima</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Muira</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Tanti</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Sirhwa</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Kubachi-Ashti</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Kaitag</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Totals</td>
<td>24</td>
<td>17</td>
</tr>
</tbody>
</table>

† We do not have age information for four of the respondents.

3.2 Stage 2 methodology

The primary tool in stage 2 was recorded text tests (RTTs), following the methodology described by Casad (1974), as modified by Kluge (2010). In an RTT, short oral texts are recorded in each of the varieties to be compared. These oral texts are then played for speakers of other varieties, and the level of comprehension is determined. In Casad’s original proposal, comprehension was determined by asking the listener to answer ten questions about the text. In Kluge’s revised methodology, listeners retell the story. Each recording is divided into multiple sections, and a list of points that need to be included in the retelling is prepared. Comprehension is determined by how many of these points are included in the retelling.

Whatever method is used to determine comprehension, an RTT is a direct measure of comprehension, as opposed to lexical similarity, which is an indirect measure of comprehension. J. Grimes (1995:17) argues that tasks like the RTT, which measure the level of comprehension without determining the linguistic correlates of that comprehension, allow us to quantify comprehension as a percentage. He proposes that scores above 85 percent indicate adequate communication, while scores below 70 percent indicate the varieties in question are separate languages (J. Grimes 1995:22).

In our research, we used texts from five varieties of Dargwa: Literary Dargwa (based on Aqusha), Tsudaqar, Muira, Kubachi, and Kaitag. The five texts are given in Appendix B. We used these texts with
speakers of four of these varieties: Aqusha (Akusha village), Tsudaqar (Kuppa village), Kaitag (Madzalis, Shilyagi and Adaga villages), and Kubachi (Kubachi village). All but Shilyagi village are labeled on map 2.

When choosing the texts, we tried to ensure that they did not include specialized or technical vocabulary. The vocabulary in the texts included terms from the fields of agriculture, crafts, food and cooking, traditional local customs, natural phenomena, geographic terms, clothing, plant and animal names, kinship terms, and characteristics of human behavior. The texts were recorded using a Zoom H4n recorder. Each text was divided into seven sections. In each section, from two to nine key elements were identified to use to evaluate intelligibility. The total number of key points per text ranged from a low of 32 for the Tsudaqar text to a high of 50 for the Kubachi text.

Previous researchers agree that Kubachi and Kaitag represent separate languages, so we expected this to be reflected in low comprehension scores. There is no consensus, on the other hand, as to the status of Literary Dargwa (based on Aqusha), Tsudaqar and Muira. Koryakov (2012, 2016a) for example, claims they are separate languages, while Hammarström et al. (2018) claims they are dialects of a single language. The goal of the RTT is to bring another set of data to bear on this question. By including Literary Dargwa, we can determine whether its official status as a literary language used in the schools has resulted in a high level of intelligibility even for respondents speaking varieties that are generally recognized as separate languages.

We administered the RTT to a total of 82 Dargwa speakers. The distribution of these respondents is given in table 7, broken down by gender and age.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;30</td>
</tr>
<tr>
<td>Aqusha</td>
<td>12</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>6</td>
</tr>
<tr>
<td>Kaitag</td>
<td>13</td>
</tr>
<tr>
<td>Kubachi</td>
<td>10</td>
</tr>
<tr>
<td>Totals</td>
<td>41</td>
</tr>
</tbody>
</table>

As in stage 1, participants were chosen by the village administrators. Again, we took care to explain to the administrators that we wanted ‘average’ people, since their first inclination was to identify the most highly educated residents to work with us. We also emphasized the importance of selecting participants of both genders and from a range of ages. This resulted in a reasonably random stratified sample in most villages.

Each respondent was asked to listen to four texts, all but their own variety. The procedure was that the respondent would listen to each section three times, and then retell the story in their own variety of Dargwa. Respondents who asked to hear a section more than the normal three times were allowed to hear the section a maximum of one more time. This was most commonly requested for the Literary Dargwa text.

For each RTT that was administered, the response was compared to the original text and points were assigned. For example, the Muira text began with the two sentences given in (1). The key elements are underlined for each sentence.

(1) a. My father was a blacksmith. (2 key elements)
    b. He rose very early in the morning, while it was still dark, and he made horseshoes and nails for ten horses. (9 key elements)

The response from one of the Kubachi participants is given in (2).

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21 Speakers of Aqusha did not listen to the Literary Dargwa text since Literary Dargwa is based on Aqusha.
(2) a. My father was a blacksmith. (2 points)
b. He got up early in the morning and made a horseshoe for ten horses. (7 points)

Points are assigned for equivalent terms, for example, ‘got up’ in the response for ‘rose’ in the original text or ‘a horseshoe’ in the response for ‘horseshoes’ in the original. The respondent, however, omitted two key elements in the second sentence: ‘still dark’ and ‘nails’. Therefore, the respondent received 7 of the 9 possible points for the second sentence.

For some responses, it is not clear whether points should be awarded. One example is a response to the first sentence in the Kaitag text, which is given in (3).

(3) Today we will prepare chudu.\(^{22}\)

The response by one of the Kubachi participants is given in (4).

(4) In the month of Urazu\(^{23}\) we sit in the evening waiting for food.

While the respondent realized the original text was about food, it is clear the respondent did not understand the original sentence and no points were given for the response.

Adding the points for all seven sections of a given RTT gives an overall score. Since we administered the RTT to 82 participants, and each participant responded to four texts, we obtained 328 scores.

After completing the RTT, respondents were asked the following five questions.

1. Where do you think the storyteller was from?
2. Have you ever heard anyone speak like this narrator, or communicated with someone speaking this variety?
3. What do you think about this story?
4. Was this a good example of the Dargwa language?
5. How do you feel about other dialects?

Each respondent was also given the opportunity of responding to a questionnaire requesting information about language use.\(^{24}\) These questions were as follows.

1. What language do children speak with adults and between themselves?
2. What language do you use in the following situations: at home, at work, in the market, while thinking?

4 Results

The goals of the research in stage 1 were to form a general picture of the sociolinguistic situation in Dargwa, while the goals of the research in stage 2 were focused on the more specific question of intelligibility between varieties. We present the findings of our stage 1 research in section 4.1, and the findings of our stage 2 research in section 4.2.

4.1 Stage 1 results

We begin the presentation of our stage 1 results with a summary of the responses to a few of the questions from the questionnaire. Then we present the data we collected through observations and informal conversations.

\(^{22}\) Chudu is a traditional Dagestani dish.
\(^{23}\) The month of Ramadan, which involves fasting.
\(^{24}\) As with the stage 1 questionnaire, this questionnaire was administered in both oral and written form, depending on what seemed most agreeable with each respondent.
4.1.1 Stage 1 questionnaire

In figure 2 we compare the responses to the questions regarding languages respondents regularly use (B1)\textsuperscript{25}, which language is most important to the respondent (B6), and which is most prestigious (C4). The only three languages mentioned by respondents are Dargwa (D), Literary Dargwa (L) and Russian (R). The solid blocks represent responses referring to a single language, while the blocks with diagonal patterns indicate a mixture of Russian and either Dargwa or Literary Dargwa.

![Language Comparison Chart]

Figure 2. Languages used, most important language and most prestigious language.

Russian is clearly considered to be more prestigious than either Dargwa or Literary Dargwa. Over two-thirds of the respondents consider Russian to be the most prestigious, while an additional 12 percent consider Russian and either Dargwa or Literary Dargwa to be the most prestigious. Overall, over three-quarters consider Russian to be the most prestigious either alone or in combination with Dargwa or Literary Dargwa. The status of Russian is considerably less dominant when we consider which language is deemed to be the most important language for the respondent. Over half the respondents consider Dargwa to be the most important language, while less than a third consider Russian to be most important. Just over a sixth consider both to be most important. Finally, over 60 percent of respondents use both Dargwa and Russian. Almost 25 percent use only Dargwa or Literary Dargwa, as opposed to just over 12 percent who use only Russian.

While the majority of respondents use both Russian and Dargwa regularly, the patterns of use vary considerably depending on the situation. In figure 3 we repeat the responses for overall use and compare them with the responses for language use with relatives (C1a), when thinking (C1d), for counting (C1f) and for quarrels (C1g).\textsuperscript{26}

\textsuperscript{25} The numbers refer to the question number, as given in the Appendix A.2 questionnaires.

\textsuperscript{26} One respondent indicated they do not quarrel, and two respondents did not answer this question. The data from these respondents was ignored for the ‘quarrel’ statistics, so the N for this situation is 38 rather than 41.
In two of the situations, Dargwa is used considerably more than Russian. Nearly half the respondents use only Dargwa with relatives, while an additional 44 percent use either Dargwa or Literary Dargwa and Russian. Only 7 percent use only Russian with relatives. For thinking, three quarters use only Dargwa (51 percent) or Dargwa and Russian (24 percent). Only 24 percent use only Russian for thinking. The differences between language use with relatives and when thinking are not statistically significant. The relative use of Russian and Dargwa is more balanced in the case of counting and quarrels. For counting, 39 percent use only Russian while 34 percent use only Dargwa or Literary Dargwa. The remaining 27 percent use both Russian and Dargwa. When quarreling, almost 37 percent use only Dargwa, almost 30 percent use only Russian, and just over a quarter use both.

The only situation in which a language other than Dargwa, Literary Dargwa or Russian is used is for prayer (C1i). This is expected, since Arabic is the language of religion for Islam. The use of Dargwa, Russian and Arabic is shown in figure 4.28

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27 We calculated the significance of the differences in two ways, both involving chi-square tests. First, we merged L/R with D/R, but kept the three-way distinction between D, R/D and R. The results of the chi-square test with this three-way distinction was barely significant, p = 0.048. Then we merged the R/D with the D and R categories by adding half of the R/D numbers with D and R and rounding up when necessary to maintain integer values. For example, 20 respondents reported that they use only Dargwa with relatives, three reported that they use only Russian, and 18 reported that they use both. We added 9 (half of 18) to both 20 and 3, which gave merged figures of 29 for D and 12 for R. A chi-square test of the merged figures indicated the difference is not significant, with p = 0.170. The two sets of p-values suggest the difference in language use is not significant.

28 Five respondents indicated they do not pray. The data from these respondents was ignored for the ‘prayer’ statistics, so the N for this situation is 36 rather than 41.
While almost 30 percent of the respondents use only Arabic for prayer, even more use only Dargwa (over a third). Not surprisingly, Russian is used by less than 15 percent of the respondents either alone or with Literary Dargwa.

We now shift our focus to differences in the use of language related to age. In question B7, respondents are asked what language children use among themselves. In figure 5, the responses to this question are compared to languages used by adults, and languages used by adults with relatives.

It seems reasonable to compare language use patterns among children with those of adults with relatives since both are informal situations among peers. The use of Russian is considerably higher for children than for adults. In each group, over a third use a combination of Russian and Dargwa, but almost a third
of children use only Russian as opposed to 7 percent of adults with relatives. In spite of this reported increased use of Russian among children, almost a third use only Dargwa while over a third use both Dargwa and Russian. The widespread use of Dargwa even among children is probably a major reason that over 75 percent of respondents (31 of 41) indicated they believe that Dargwa will still be spoken five to six years from now (question D10).

The final question for which we present results deals with proficiency in Literary Dargwa (D1). The results are given in table 8.

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand</td>
<td>29</td>
<td>70.7%</td>
</tr>
<tr>
<td>Mostly understand</td>
<td>7</td>
<td>17.1%</td>
</tr>
<tr>
<td>Understand poorly</td>
<td>5</td>
<td>12.2%</td>
</tr>
<tr>
<td>Do not understand</td>
<td>0</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

One possible explanation for the fact that over 70 percent of respondents indicate they understand Literary Dargwa is that 13 of the 41 respondents are from a village that speaks the Aqusha variety of Dargwa, upon which Literary Dargwa is based. This explanation does not fit the facts, however. While the differences between respondents from Aqusha villages and other villages is not statistically significant, the percentage of respondents reporting they understand Literary Dargwa is actually higher in non-Aqusha villages than in Aqusha villages.

4.1.2 Observations and conversations

In addition to the questionnaire, we gathered considerable information during our stage 1 research through observations and informal conversations. In this section, we summarize these findings.

In the villages that we visited, members of all generations speak Dargwa. Many parents encourage their children to learn the traditional language. In general, intergenerational transmission seems to be strong in the villages, even to the youngest generation.

Dargwa is used less in Makhachkala than in the villages. Since people of many ethnicities live in Makhachkala, people communicate in Russian. In addition, Russian is important in Makhachkala in both schooling and business. Schools in Makhachkala teach the traditional languages, including Literary Dargwa, for one to three hours per week to non-ethnic Russian students. According to one of the teachers, however, Dargwa children living in Makhachkala show little interest in learning their traditional language; parents also have little interest in having their children learn Dargwa. In addition, differences between varieties means many students have difficulty understanding the teacher. Because of this, most of the material needs to be explained in Russian.

The maintenance of Dargwa is complicated by increased urbanization. As noted in section 2.1, urbanization has accelerated from 2002 to 2010, and although there are no official census figures since 2010, there is no indication that the pace of urbanization has slowed since 2012. When only one or two members of a family relocate for education or work, they have a natural incentive to maintain relationships, including language, with their traditional homeland. In the case of Dargwa, however, the

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29 An anonymous reviewer suggested that the greater use of Russian among children could be due to the fact that they are in school, and that they will use less Russian as they grow older. While we have been told that parents use the language of instruction with school-aged children in other communities to help them in their studies, teachers report that students continue to use the traditional language among themselves outside class (Clifton et al. 2005). The use of the language of instruction by school-aged children among themselves is notable.

30 It is not the case that respondents living in a village were more likely to indicate that Dargwa will still be spoken than were respondents living in Makhachkala. In fact, the opposite was the case, although the difference was not statistically significant due to the small sample size.
general trend is that entire families relocate to urban regions in the plains. In some cases, during the Soviet period, large numbers of Dargwa were resettled to plains communities including Sulevkent and Pervomaiskoe. Significant numbers of Dargwa also migrated to Stavropol, Rostov, Astrakhan regions, as well as to the Republic of Kalmykia, and the countries of Kyrgyzstan and Uzbekistan. We were told that in communities like these, Dargwa has been preserved since the Dargwa community is large enough to facilitate intragroup communication. Where there is no larger Dargwa community associated with the migration, however, the use of Dargwa is limited to within the family; people use Russian outside the family. While there are reports of children using Dargwa within the family in urban areas with no major concentrations of Dargwa speakers, it appears that ethnic Dargwa are generally shifting from Dargwa to Russian in two to three generations.

The migration of Dargwa has also had an impact on the traditional mountain villages. For example, a resident of Shukty told us that in just the last ten years five families have left to go to the urban areas of Makhachkala and Kizlyar. Other young people have left to study in Makhachkala or Russia and have settled there. As a result, the number of students in the school in Shukty has dropped from 290 in 1969 to 120 in 2016.

As indicated in section 4.1.1, it is now common for children to use Russian even in village communities. One of the Russian teachers at a rural school shared that just a few years ago children did not know Russian when they started school, but this has changed. At school, children are taught Literary Dargwa, but its scope of use is limited despite the fact that the language is actively used in the media, including newspapers, television, and radio. Russian has gradually begun to predominate in the life of adolescents, especially since all subjects in school are taught in Russian except for Dargwa language and literature.

Literary Dargwa and the varieties spoken in the villages exhibit diglossia (Ferguson 1959). Literary Dargwa is the 'high' language used primarily in education and the media. It does not play a role as a language of communication between speakers of divergent local varieties; Russian plays this role. The local varieties function as the 'low' forms and they are generally limited to oral use. While some speakers SMS and write letters in the local varieties, adapting the Literary Dargwa orthography as necessary, most speakers consider the local varieties to be less developed and less rich than Literary Dargwa.

4.2 Stage 2 results

As indicated in section 3.2, the primary instrument used in stage 2 was a Recorded Text Test (RTT) to determine intelligibility between a number of varieties of Dargwa. The results of the RTT are presented in section 4.2.1. This is followed in 4.2.2 by an analysis of the responses to the questions we asked in stage 2 to follow up the questionnaire from stage 1.

4.2.1 Recorded text test (RTT)

Once scores are assigned to each RTT as outlined in section 3.2, they are converted to percentages by dividing by the number of possible points for the text in question. This is important since, as noted in section 3.2, each of the texts has a different number of possible points. Converting the scores to percentages makes it possible to compare scores on different texts. These percentages are shown in Appendix C, table 15.

Mean percentage scores were calculated by totaling the scores from all the subjects from a given group for a given text. For example, a mean score was calculated for all the Aqusha speakers on the Tsudaqar text, and another for all the Kubachi speakers on the Literary Dargwa text. These mean percentage scores are shown in table 9, where the columns indicate the variety of the text being tested and the rows indicate the variety spoken by the respondents.

31 While the term 'average' is synonymous with 'mean' when used in its mathematical sense, it has a number of related senses that are not synonymous with 'mean'. We use the term 'mean' to minimize confusion.
Table 9. Mean RTT percentage scores

<table>
<thead>
<tr>
<th></th>
<th>Kaitag</th>
<th>Kubachi</th>
<th>Tsudaqar</th>
<th>Lt Dargwa</th>
<th>Muira</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaitag</td>
<td>—</td>
<td>23.4%</td>
<td>42.8%</td>
<td>42.8%</td>
<td>55.2%</td>
</tr>
<tr>
<td>Kubachi</td>
<td>44.0%</td>
<td>—</td>
<td>44.3%</td>
<td>31.1%</td>
<td>51.8%</td>
</tr>
<tr>
<td>Aqusha</td>
<td>26.1%</td>
<td>14.7%</td>
<td>—</td>
<td>—</td>
<td>57.8%</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>32.3%</td>
<td>24.9%</td>
<td>—</td>
<td>49.7%</td>
<td>65.0%</td>
</tr>
</tbody>
</table>

Blair (1990:25) proposes that scores above 80 percent are high, while those below 60 percent are low. By this criterion, all but one of the RTT percentage scores in table 9 are low, that is, intelligibility is low; the one above 60 percent is still quite a bit lower than 80 percent. One surprise is that all four groups of participants scored highest on the Muira text, given that Kubachi and Kaitag are not closely grouped with Muira. The significance of these observations is explored in section 5.1 where we discuss the grouping of varieties.

One possible explanation for the low intelligibility scores is that some respondents might not have understood the task, not that they did not understand the texts. The basis for this claim would be that some respondents scored consistently low on all the RTTs they attempted. For example, respondent Ka-20 had scores of 14.0, 22.0, 0.0 and 18.8; while Aq-03 had scores of 3.6, 8.0, 23.2 and 18.8; as reported in Appendix C. We could test this hypothesis by discarding all the scores by subjects who did not score at least 50 percent on at least one text. The results of these new calculations are given in table 10.

Table 10. Average RTT percentage scores discarding low-scoring participants

<table>
<thead>
<tr>
<th></th>
<th>Kaitag</th>
<th>Kubachi</th>
<th>Tsudaqar</th>
<th>Lt Dargwa</th>
<th>Muira</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaitag</td>
<td>—</td>
<td>24.7%</td>
<td>54.2%</td>
<td>51.8%</td>
<td>66.9%</td>
</tr>
<tr>
<td>Kubachi</td>
<td>51.8%</td>
<td>—</td>
<td>52.6%</td>
<td>40.7%</td>
<td>66.0%</td>
</tr>
<tr>
<td>Aqusha</td>
<td>29.6%</td>
<td>15.4%</td>
<td>55.1%</td>
<td>—</td>
<td>63.6%</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>32.6%</td>
<td>25.9%</td>
<td>—</td>
<td>52.1%</td>
<td>67.7%</td>
</tr>
</tbody>
</table>

Blair (1990:25) proposes that scores above 80 percent are high, while those below 60 percent are low. By this criterion, all but one of the RTT percentage scores in table 9 are low, that is, intelligibility is low; the one above 60 percent is still quite a bit lower than 80 percent. One surprise is that all four groups of participants scored highest on the Muira text, given that Kubachi and Kaitag are not closely grouped with Muira. The significance of these observations is explored in section 5.1 where we discuss the grouping of varieties.

While the percentages rise, as expected, there is considerable variation in the size of the increase. In table 11, we quantify the increases.32

Table 11. Increases in RTT percentage scores

<table>
<thead>
<tr>
<th></th>
<th>Kaitag</th>
<th>Kubachi</th>
<th>Tsudaqar</th>
<th>Lt Dargwa</th>
<th>Muira</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaitag</td>
<td>—</td>
<td>5.6%</td>
<td>26.6%</td>
<td>21.3%</td>
<td>21.2%</td>
</tr>
<tr>
<td>Kubachi</td>
<td>17.7%</td>
<td>—</td>
<td>18.7%</td>
<td>30.9%</td>
<td>27.4%</td>
</tr>
<tr>
<td>Aqusha</td>
<td>13.4%</td>
<td>4.8%</td>
<td>13.6%</td>
<td>—</td>
<td>10.0%</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>0.9%</td>
<td>4.2%</td>
<td>—</td>
<td>4.8%</td>
<td>4.2%</td>
</tr>
</tbody>
</table>

The percentage increase ranges from 0.9 percent to 30.9 percent. The scores for Tsudaqar participants rose much less than for the other groups, while the scores for the Kaitag and Kubachi rose more than for the other groups. This difference can be attributed to the number of participants whose scores were discarded because they scored less than 50 percent on each of the RTT texts. These numbers are shown in table 12.

32 The size of each increase was determined by dividing the difference between the two means by the RTT percentage that included all participants. For example, the difference between the two percentages of Kaitag participants on the Tsudaqar text is 11.4 (54.2-42.8); 11.4 divided by 42.8 is 0.266, or 26.6 percent.
Table 12. Number of participants whose scores were discarded

<table>
<thead>
<tr>
<th>Variety</th>
<th>Total N</th>
<th>Discarded N</th>
<th>% Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaitag</td>
<td>20</td>
<td>8</td>
<td>40.0%</td>
</tr>
<tr>
<td>Kubachi</td>
<td>18</td>
<td>7</td>
<td>38.9%</td>
</tr>
<tr>
<td>Aqusha</td>
<td>22</td>
<td>5</td>
<td>22.7%</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>22</td>
<td>2</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

As expected, the groups that had the highest number of participants whose low scores were deleted (Kaitag and Kubachi) had the greatest increase in RTT percentage scores, while the group that had the lowest number of participants whose low scores were deleted (Tsudaqar) had the smallest increase in RTT percentage scores.

While the percentage scores increased when the scores from participants who did not have a score of 50 percent on at least one text, the scores reported in Table 10 are still low. None are above the 80 percent indicating a high level of intelligibility. Twelve of the sixteen scores are still less than 60 percent, indicating low intelligibility, and all are less than 70 percent. Even discarding participants who scored consistently low, the results in Table 10 suggest that intelligibility is low. This conclusion is supported by informal conversations in which respondents indicated that when interacting with speakers from other varieties, it was easier to switch to Russian than to attempt to understand the other variety.

Although the mean percentage scores indicate overall low intelligibility, they do not give any information as to whether the intelligibility that does exist is inherent or acquired. Examining the asymmetry of scores can give insight into this question. If two varieties A and B are inherently intelligible, the scores for speakers of A on the B text should be roughly equivalent to the scores for speakers of B on the A text.\(^{33}\) For example, according to Table 10, Tsudaqar speakers scored 52.1 percent on the Literary Dargwa text (and Literary Dargwa is based on Aqusha), while Aqusha speakers scored 55.1 percent on the Tsudaqar text. This argues that while intelligibility between the two is low, it is inherent, not acquired.

Comparing Kaitag and Kubachi with Aqusha gives a very different picture. Kaitag speakers and Kubachi speakers scored 51.8 percent and 40.7 percent, respectively, on the Literary Dargwa text. In contrast, Aqusha speakers scored only 29.6 percent and 15.4 percent, respectively, on the Kaitag and Kubachi texts.\(^{34}\) This can be explained if inherent intelligibility is low (given the low figures for Aqusha speakers), and that the higher figures for Kaitag and Kubachi speakers on the Literary Dargwa text are due to learning it in school, that is, intelligibility of Literary Dargwa by speakers of Kaitag and Kubachi has a major acquired component.

The relationship between Kaitag and Kubachi with Tsudaqar is similar to their relationship with Aqusha. While Kaitag speakers and Kubachi speakers scored 54.2 percent and 52.6 percent on the Tsudaqar text, Tsudaqar speakers scored only 32.6 percent and 25.9 percent, respectively, on the Kaitag and Kubachi texts.\(^{35}\) One possible explanation for the higher scores for Kaitag and Kubachi speakers is that intelligibility with Tsudaqar is a result of the similarity between Tsudaqar and Aqusha (and, by extension, with Literary Dargwa). Regardless of the actual explanation, the asymmetry between scores indicates that the intelligibility has a major acquired component.

In summary, the results of the recorded text test (RTT) suggest that intelligibility is generally low between the five varieties we tested. In addition, there is evidence that at least some of the intelligibility is acquired, not inherent.

\(^{33}\) Of course, there could be factors other than intelligibility that effect scores. For example, if a particular variety is stigmatized, speakers of other varieties may, whether consciously or subconsciously, perform poorly on texts from that variety.

\(^{34}\) The results of 2-sample t-tests indicate all these differences are statistically significant at a level of \(p < 0.001\).

\(^{35}\) The results of 2-sample t-tests indicate the difference between scores for Tsudaqar speakers on the Kaitag text compared to those for Kaitag speakers on the Tsudaqar text are statistically significant at a level of \(p = 0.002\), while the difference between Tsudaqar and Kubachi are statistically significant at a level of \(p < 0.001\).
4.2.2 Stage 2 questions

As indicated in section 3.2, participants in the recorded texts tests were given the opportunity to respond to questions about language use. The purpose of these questions was two-fold. First, we were able to include a larger number of respondents. This was especially helpful in the Kubachi and Kaitag areas, each of which were represented in stage 1 by only one individual, each of whom lived in Makhachkala. Second, some of the questions were identical or similar to questions from the stage 1 questionnaire; the responses in stage 2 could be used to check the consistency of responses. Furthermore, all the respondents in stage 2 lived in villages, while some of the respondents in stage 1 lived in urban areas.

Not all the participants who completed the RTT responded to the questions. The numbers who did respond are given in table 13, compared with the number who responded in stage 1 and the number who completed the RTT.

<table>
<thead>
<tr>
<th>Village</th>
<th>St 2 Q</th>
<th>St 2 RTT</th>
<th>St 1 Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqusha</td>
<td>12</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Kaitag</td>
<td>17</td>
<td>20</td>
<td>1</td>
</tr>
<tr>
<td>Kubachi</td>
<td>5</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Tsudaqar</td>
<td>12</td>
<td>22</td>
<td>8</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>46</strong></td>
<td><strong>82</strong></td>
<td><strong>23</strong></td>
</tr>
</tbody>
</table>

Just over 56 percent of the participants in the RTT agreed to answer the stage 2 questions. The fact that almost 44 percent did not respond to these questions is probably due to the fact that responding to four RTTs takes a considerable investment of time and can be tiring. At the same time, twice as many people from these four villages responded to stage 2 questions than had responded to stage 1 questions.

All the stage 2 questions dealt with language use. The first two questions dealt with children’s use of language. In stage 1, respondents were asked what language children used among themselves; in stage 2, respondents were asked the same question, plus what language children used with adults. The responses to these two questions are shown in figure 6, where they are compared to the overall responses from stage 1 for children’s language use with other children and adults’ language use with relatives.36

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36 One respondent in stage 1 indicated that children use Literary Dargwa between themselves; this has been merged with Dargwa for this chart. Two respondents in stage 1 indicated that they use Literary Dargwa and Russian with relatives; this has been merged with D/R for this chart.
As shown in figure 6, stage 2 respondents reported that children use significantly more Dargwa with adults than with children, and significantly more Russian with children than with adults. Children were also reported to use more Dargwa with adults than adults use with relatives. Comparing the responses from stage 2 with those of stage 1 regarding children’s use of language with other children, we see respondents in stage 2 reported a greater use of Dargwa and less use of Russian than did respondents in stage 1. This seems reasonable in light of the fact that stage 1 responses included participants who lived in urban areas where Russian would be more likely to be used. The difference, however, is not statistically significant. There are differences between reported behavior by village, but these differences are also not statistically significant.

Respondents in stage 2 were also asked which languages they use in four different settings: at home, at work, at the market, and when thinking. The results of these responses, along with the responses from stage 1 regarding language use with relatives, are summarized in figure 7.

37 According to a chi-square test, the differences reported in children’s use of language is statistically significant at the level of p=0.004, well below the threshold of 0.01.

38 According to a chi-square test, p = 0.528.

39 Literary Dargwa and Dargwa have been merged for ‘Relatives S1’ as they were for figure 6. One participant from Kaitag responded with a language other than Dargwa or Russian for ‘language used at home’; three participants from Kaitag and two participants from Tsudaqar responded with a language other than Dargwa or Russian for ‘language used at the market’. In each case, the response was omitted from the summary, and the number of responses was reduced to reflect this.
Comparing language use patterns by adults in the four settings addressed by the questions in stage 2, use of Dargwa is considerably higher in the home than in the other situations, while use of Russian is considerably higher at work. Language use patterns at the market and when thinking are between these extremes.

The reported use of only Russian in the home by stage 2 respondents is roughly the same as that with relatives by stage 1 respondents. Stage 2 respondents, however, reported a much higher use of only Dargwa in the home than stage 1 respondents reported with relatives, a difference that seems to be statistically significant. One possible explanation for this difference is that some stage 1 respondents live in urban areas, while all stage 2 respondents live in rural areas. Another explanation could be that respondents are more likely to have relatives outside the home who speak Russian, leading to a higher use of Russian.

One surprising result is that Russian is used much more when thinking than in the home. As noted in section 4.1.1, the differences reported in stage 1 between reported language use between with relatives and when thinking was not statistically significant. Furthermore, there is no statistically significant difference between the language use patterns reported by stage 1 versus stage 2 respondents with regard to thinking. But, as noted above, respondents in stage 2 reported a significantly higher use of Dargwa in the home than did respondents in stage 1 with relatives. This carries over to the reported use of Dargwa by stage 2 respondents in the home versus when thinking: significantly more Dargwa is reportedly used in the home than when thinking. We have no explanation for this difference.

---

40 As explained in footnote 32, we calculated the significance of the differences in language use in two ways: first maintaining the three-way distinction between D, R/D and R; second after merging R/D with the D and R categories. A chi-square test maintaining the three-way distinction indicated the difference is significant with p = 0.009. A chi-square test of the merged figures indicated the difference is not significant, but the resulting value of p = 0.062 is close to the upper threshold of 0.05. The two sets of p-values strongly suggest a significant difference in reported language use.

41 Chi-square tests indicate the difference is not significant regardless of whether the three-way distinction is maintained (p = 0.807) or the R/D category is merged with R and D (p = 0.513).

42 The difference is significant whether the calculations are made on the three-way categories or the merged categories: p = 0.001 in both chi-square analyses.
5 Discussion

The research presented in this paper has two major objectives: to determine the relationship between the varieties of Dargwa and to determine sociolinguistic factors involved in the use of Dargwa. In section 5.1, we discuss the implications of our findings regarding the status of the many Dargwa varieties. Then, in section 5.2, we discuss the vitality of both Dargwa and its varieties based on language use patterns, including intergenerational transmission of Dargwa and its status as a literary language.

5.1 Status of varieties

In section 2.3, we noted that, working from the same figures of lexical similarity, Koryakov (2016a, 2016b) proposes that the Dargwic group consists of twelve languages, while Hammarström et al. (2018) proposes that it consists of only five languages. We traced this difference to the fact that the two analyses accept different percentages of lexical similarity to determine the status of two varieties as either separate languages or as dialects of a single language. At the same time, we argued that high percentages of lexical similarity should not be used to determine the status of varieties. Instead, if the percentage is above a lower threshold of 60 or 70 percent, intelligibility testing should be conducted to determine the status of the varieties in question.

According to the intelligibility testing we conducted using recorded text test (RTT) methodology, levels of intelligibility ranged from 15.4 percent to 67.7 percent, even after discarding the scores from participants who did not score at least 50 percent on at least one of the texts. When we included all the participants, the scores were even lower. Since scores under 70 percent indicate inadequate intelligibility (J. Grimes 1988:21), our findings indicate that all the varieties we included should, at best, be considered highly divergent dialects. Our findings also support the claim that both Kubachi and Kaitag should be considered separate languages.

The low figures for intelligibility could raise methodological questions regarding our research. It is commonly assumed that high percentages of lexical similarity should correlate with high levels of intelligibility. Simons (1983), however, finds that intelligibility percentages ranged from 30 percent to 79 percent when the percentage of lexical similarity is 80 percent (as referenced by B. Grimes (1988)). Our figures are well within this range. Further analysis of the data presented by Simons indicates that while there is strong correlation between low lexical similarity and low intelligibility, the correlation between high lexical similarity and high intelligibility is weak (J. Grimes 1988).

This raises the question as to why intelligibility between Dargwa varieties is low given the high percentages of lexical similarity. One possible explanation is differences in morphology, a factor that seems to affect intelligibility in other linguistic situations (B. Grimes 1988). In the case of Dargwa, it has been claimed that the morphological systems of the two southern varieties of Sanzhi and Shiri are quite different. Furthermore, Shiri is claimed to share common morphological features with Kubachi, even though it is generally agreed they are separate languages (DOBES 2017:Language).

One puzzle in our data is the relatively high level of intelligibility speakers from all four varieties demonstrated on the Muira text. The intelligibility figures on the Muira text ranged from 63.6 percent to 67.7 percent, while the highest level on any of the other texts was 55.1 percent. A common explanation for situations in which participants performed substantially better on one text than on the others is that the high-score text is more predictable in some way. It is difficult to see how this applies in the case of Muira. The Tsudaqar text is a simple narrative, like the Muira text. If anything, the Kaitag text, instructions for making a traditional Dagestani dish, should be the most predictable text. One possible explanation makes use of the fact that the Muira region is located between the Akusha, Kubachi and Kaitag regions. It is possible that due to its location, speakers of the surrounding dialects have more regular contact with speakers of Muira than with speakers of other varieties.

The lowest intelligibility scores are by Aqusha and Tsudaqar on the Kubachi and Kaitag texts. This is expected given the generally accepted claim that Kubachi and Kaitag are separate languages. Speakers of Kubachi and Kaitag score considerably higher on the Tsudaqar and Literary Dargwa texts: 52.6 to 54.2 percent on the Tsudaqar text, and 40.7 to 51.8 percent on the Literary Dargwa text. It is somewhat surprising that the scores on the Tsudaqar text were somewhat better than those on the Literary Dargwa
text, especially given that children study Literary Dargwa in school. One possible explanation for this is that the Literary Dargwa text is poetry. It could be that poetry is more difficult to process than narrative or procedural texts. However, poetry is a common genre in language classes in Russian schools, so it is probably not as foreign to speakers in Dagestan as it might be elsewhere. Furthermore, participants were only asked to repeat the text, not explain it. It would be interesting to see if participants scored higher on a Literary Dargwa narrative text. But this might not make a noticeable difference, given that even in narratives the literary form of Dargwa represents a high form of the language as opposed to the form used at home and in the market.

There are definite limits to conclusions we reached based on the RTT. Testing was limited to participants from four of the twelve varieties identified by Koryakov (2016a), and two of these, Kubachi and Kaitag, are considered separate languages by both Koryakov (2016a, 2016b) and Hammarström et al. (2018). So, our findings that comprehension is especially low between these two varieties and the other varieties simply confirms this claim. Furthermore, the other two varieties, Tsudaqar and Aguasha, are both part of the north grouping, whether they are dialects of a single language or separate languages. We did not include any members of the south group other than the independent Kaitag and Kubachi. So, there are many relationships that our research did not address. For example, Koryakov (2016a, 2016b) proposes that Kubachi is part of the southwestern group to the exclusion of Kaitag, while Hammarström et al. (2018) proposes that Kaitag is part of the South Dargwa subfamily to the exclusion of Kubachi. Our research does not address this question. Any follow-up research should include a wider range of participants, especially from the south group. Related to this, further research should include participants from Muira, since intelligibility scores were highest with the Muira text. It would be good to see if the intelligibility goes both ways. It would also be good to include texts from both Aguasha and Literary Dargwa to see if the ‘high’ status of Literary Dargwa is a significant factor in intelligibility.

In any follow-up research, an attempt should be made to ensure that all texts are of the same genre. In our research, we included four distinct genres: Tsudaqar and Muira are narratives, Kaitag is procedural, Kubachi is a parable, and Literary Dargwa is poetry. We have seen no evidence that this difference affected the intelligibility scores. But ensuring that the texts are all the same genre would help guard against effects of genre.

Finally, it would be good in any further research to administer the hometown text before administering texts from other varieties. That is, Tsudaqar-speaking participants should first retell the Tsudaqar text, Kubachi-speaking participants should first retell the Kubachi text, and so on. Participants should score close to 100 percent on the hometown text. If they do well on the hometown text, but poorly on all the other texts, we would know this is due to poor intelligibility. If, on the other hand, they do poorly on the hometown text, we would not even have to administer texts from any of the other varieties. Administering the hometown text would resolve any questions as to whether low intelligibility scores were due to participants not understanding the procedure itself.

In spite of these methodological problems, the fact that even the scores involving both participants and texts from the north group (that is, Tsudaqar, Aguasha/Literary Dargwa, and Muira) are below 70 percent, and some are below 60%, suggests that there is good basis for considering all three varieties as separate languages as proposed by Koryakov (2016a, 2016b). This does not, of course, have specific implications for the self-identification of speakers as Dargwa. In some sense, Dargwa is both a single entity and simultaneously a collection of varieties, some of which are undoubtedly separate languages. Hammarström et al. (2018) deal with this duality by claiming that while there is no Dargwa language, there is a Dargwic subfamily, which consists of five separate languages (Kubachi, Kaitag, Chirag, North Central Dargwa and Southwestern Dargwa). This characterization, however, fails to capture the fact that many speakers of the varieties of Dargwa view it as a single language. One possible way to address this problem is to designate Dargwa as a macrolanguage, like Chinese or Arabic. According to the ISO 639-3 standard, a macrolanguage is a group of “multiple, closely related languages that are deemed in some usage contexts to be a single language.” Dargwa is considered a single language in the fields of literacy, education, and the media. Perhaps because of this, some speakers of Dargwa varieties see Dargwa as a single language. This concept of Dargwa as a single language is not a reference to Literary Dargwa. When speakers say they speak Dargwa at home, or that their children speak a mixture of Dargwa and Russian, they are referring to the local variety. But while Dargwa can be conceptualized as a single language, it is also a group of separate languages, including at least the five identified by Hammarström et al. (2018).
This dichotomy is captured nicely by the claim that Dargwa is a macrolanguage, consisting of a number of varieties, some of which are separate languages.

5.2  Dargwa vitality

Given the claim that Dargwa is a macrolanguage consisting of a number of languages, vitality needs to be considered at two levels. In section 5.2.1, we consider Dargwa vitality at the level of the macrolanguage, while in section 5.2.2, we consider the vitality of the varieties that make up the Dargwa macrolanguage.

5.2.1  Vitality of the Dargwa macrolanguage

As noted in section 2.3, Dargwa is categorized as Educational (and therefore Safe) by Simons and Fennig (2018), not endangered by Kibrik (1991), and Vulnerable by Moseley (2010). We begin our discussion of the vitality of Dargwa by examining its status as an Educational language. The description of the Educational level in the EGIDS is:

The language is in vigorous use, with standardization and literature being sustained through a widespread system of institutionally supported education. (Simons and Fennig, 2018)

It is not enough to have official standardization and the introduction of vernacular literacy for a language to be considered Educational. This level requires institutionally supported education in the language under consideration. The results of our RTT suggest that comprehension of Literary Dargwa is low. This, in turn, suggests that the use of Dargwa in the schools is insufficient for the language to be categorized as an Educational language.

In section 2.1 we argued that the underlying reason behind the introduction of Dargwa instruction was to exert control over the local population. At the time when the Latin alphabet was introduced in 1928, and Literary Dargwa was standardized based on the Aqusha variety in 1930, Party leaders felt that overt Russification would be rejected by the local population. In this environment, it was felt that the introduction of Literary Dargwa would lead to more efficient government. In establishing a Literary Dargwa, local communities that would not necessarily have seen themselves as having a common identity could be governed as a single unit. At the same time, it would break the connections local communities had with other North Caucasian peoples and with their Islamic heritage.

Given this pragmatic basis for establishing Literary Dargwa, it follows that once the pragmatic needs were no longer relevant, support for Dargwa literacy would fall. By 1938, the Latin alphabet had been replaced by a Cyrillic alphabet to facilitate transition to Russian literacy. Then, in 1939, study of Russian was made mandatory in all schools. Full-scale Russification was underway. The output of Dargwa literature from 1940 to 1956 is shown in table 14 (Karcha 1958:115).

<table>
<thead>
<tr>
<th>Year</th>
<th>Titles</th>
<th>Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1940</td>
<td>50</td>
<td>173,000</td>
</tr>
<tr>
<td>1950</td>
<td>45</td>
<td>137,000</td>
</tr>
<tr>
<td>1956</td>
<td>41</td>
<td>107,000</td>
</tr>
</tbody>
</table>

While the number of separate titles (either new or revised) dropped by 18.0 percent, the number of copies dropped by 38.2 percent. This indicates a definite decline in support for Dargwa literacy. Furthermore, by the mid-1950s, most of the material that was published in any of the North Caucasian literary languages was translations of propaganda and agricultural literature (Karcha 1958:117). This literature would not prove particularly helpful in primary school classes. The development of Literary Dargwa accelerated in the 1960s when a number of writers successfully used Dargwa in literature and
the theater (Musaev 1995). While this development is welcome, it does not, however, readily translate into pedagogical materials.

The introduction of mandatory Russian study in 1939 did not require schools to eliminate instruction using the Dargwa language. But while schools were still allowed to offer instruction in Dargwa, by the 1956–1957 academic year only 8 percent of all Dargwa students received instruction in Dargwa (Karcha 1958:114). In addition, as noted in section 2.1, while Dargwa instruction was offered in the first four years of school in the 1950s, by the beginning of the 1970s it was limited to the first two years of school. According to Wixman (1980:155), the result of these developments is that widespread literacy in Dargwa (as well as in the other Caucasian languages in Dagestan) has ceased. Now that the use of the literary languages is no longer needed for state control, the use of the local languages in the schools is limited to preparing the students for instruction in Russian.

Our conclusion based on this analysis is that Dargwa should not be categorized as an Educational language. The question then arises: what level on the EGIDS scale should be assigned to Dargwa. The next four levels are as follows:

- **Developing**: The language is in vigorous use, with literature in a standardized form being used by some though this is not yet widespread or sustainable.
- **Vigorous**: The language is used for face-to-face communication by all generations and the situation is sustainable.
- **Threatened**: The language is used for face-to-face communication within all generations, but it is losing speakers.
- **Shifting**: The child-bearing generation can use the language among themselves, but it is not being transmitted to children.

Our research indicates that Dargwa should not be classified as Shifting, since many children use the language on a regular basis. Intergenerational transmission of Dargwa still occurs in a majority of households, at least in the villages.

Given that Literary Dargwa has been standardized and is being used among at least a significant subset of the population, it could be argued that Dargwa should be classified as Developing. A more detailed description of the factors involved in the Educational and Developing levels, however, leads us to reject this classification. Simons and Fennig (2018:Language Status) expand the definitions of these two levels as follows:

EGIDS 4 (Educational) and EGIDS 5 (Developing) bring into focus the degree to which the ongoing use of the language is supported and reinforced by the use of the language in education. This largely focuses around issues of standardization and literacy acquisition and the degree to which those are institutionally supported and have been adopted by the community of language users.

Given our previous observations, we feel that Dargwa is being minimally supported and reinforced by the educational system. While there is a core of language scholars who are involved in the development of Literary Dargwa, their efforts have been neither supported by the educational system nor adopted by a significant portion of the Dargwa community. Therefore, we feel Dargwa should not be categorized as Developing.

This leaves us with the levels Vigorous and Threatened. In both levels, the language is being transmitted between generations. The difference between the two is whether the language is losing users. Our research indicates that Dargwa is losing speakers. This is especially true in the urban areas, but it is also true in the villages. As shown in figure 6, only about 7 percent of adults use Russian with relatives, while approximately 26 percent of children use Russian among themselves even though a large majority use Dargwa (possibly in tandem with Russian) with adults. If the use of Russian among themselves is an indication of future language use, it appears that Dargwa is losing speakers even in rural areas. Therefore, we propose that Dargwa should be categorized as Threatened (EGIDS 7).

The claim that Dargwa is losing speakers also supports our recommendation not to categorize Dargwa as Developing. According to Simons and Fennig (2018:Language Status), EGIDS is, at its core, a
measure of the disruption of intergenerational transmission of a language. Given this claim, we would expect that languages farther up the scale, that is, less endangered, should show less disruption of transmission. Since we have shown that Dargwa appears to be losing speakers, we can conclude that it should not be categorized as Developing.

Our proposal to classify Dargwa as Threatened also addresses the mismatch between the categorizations proposed by Simons and Fennig (2018) and Moseley (2010). Simons and Fennig (2018) classify Dargwa as Educational using the EGIDS scale. This should translate to a designation of Safe in the UNESCO scale, but Moseley (2010) classifies it as Vulnerable. In section 1, we raise the possibility that Moseley (2010) might have incorrectly applied the UNESCO scale in the case of Dargwa. It now appears that it is the classification of Simons and Fennig (2018) that is incorrect. According to Lewis and Simons (2010), the UNESCO category Vulnerable is the equivalent of EGIDS Threatened, which is our proposed EGIDS classification.

This also points out the dangers of relying on official government designations for languages. The EGIDS classification assigned by Simons and Fennig (2018) seems to be based on the fact that Dargwa is a provincially recognized language which has been developed as one of eleven literary languages recognized in Dagestan. The problem, of course, is that official proclamations do not establish a language as literary or educational. It is necessary to examine the actual policies being implemented, especially in the schools, before classifying languages regarding endangeredness.

5.2.2 Vitality of Dargwa varieties

Our research does not address the issue of the vitality of the varieties of Dargwa. The majority of our research was conducted either in varieties with greater numbers of speakers (Aqusha, Tsudaqar, Gapshima) or in varieties that were traditionally viewed as separate languages and whose speakers would therefore be more likely to maintain them (Kaitag, Kubachi). We did not visit communities, especially in the south, in which varieties are spoken that are used in only one or two villages. There is evidence that shift is underway in at least some of these communities. For example, Shiri and Sanzhi were traditionally spoken in one village each. Now, most speakers of both varieties have moved to the lowlands. Only about five Shiri households remain in Shiri village,43 while Sanzhi is totally abandoned. While some households continue to speak Shiri and Sanzhi Dargwa, both are undergoing major changes. Much in both traditional culture and various speech varieties are tied to the mountain environment; as communities move to the lowlands, individuals are losing the aspects of culture and language tied to the mountain environment. In addition, Russian has affected the lexicon, morphology and syntax (DOBES 2017:Project).

While it is possible for traditional languages with only a few hundred speakers to be maintained (as, for example, Kaki Ae in Papua New Guinea (Clifton 1997, Potter et al. 2015)), language change or language shift are more frequent outcomes. This is especially true in situations of social disruption, including significant migrations of communities leading to cultural changes. Future research should be conducted in southern varieties that are spoken in only a few villages. Of particular interest is whether speech communities are undergoing language change (including loss of traditional lexical items and syntactic structures, as well as Russification) or language shift. Related to this is the issue of ethnolinguistic identity: whether members of communities undergoing language change and shift, especially those now in multi-ethnic communities, still self-identify as Dargwa, and the role of language in their identity.

6 Conclusion

The Dargwa communities are currently undergoing significant social changes which affect language use. Russian plays an increasing role in community life and has considerable prestige. This increased role

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43 There are an equal number of non-Shiri households in the village.
does not, however, mean that Dargwa will cease to be used. People in many communities are multilingual, maintaining the traditional language while also accommodating languages of wider communication. In fact, this has traditionally been the pattern in Dargwa communities, with Arabic or Turkic languages playing the role of languages of wider communication. The question, then, is what role the Dargwa people want for their traditional language. This question must be posed on two levels: What is the role for the standardized form, Literary Dargwa, and what is the role for the local varieties.

At the level of the macrolanguage, we have shown that Literary Dargwa has had a limited role. If it is to play a greater role, its place in the educational system needs to be increased. In addition, more literature needs to be produced on a popular level—novels, short stories, materials related to daily life, religious materials, phrase books, children's literature and picture books, musical expressions, and so on. The use of Dargwa on social media platforms also needs to be developed. Such platforms could offer a place for oral expression of Literary Dargwa. A significant number of respondents indicated a desire to participate in adult literacy classes; this is an area that should be explored.

Community members also need to decide the role of the local varieties. In many rural areas, the local varieties seem to be vigorous. In others, language change or shift has accompanied culture shift. It is important in these communities to document the traditional language and culture so future generations have a record of their past. In cases of language change, communities need to decide whether to accept the resulting forms as legitimate forms of their local variety. Even when communities shift to Russian, this does not necessarily mean that the traditional language and culture needs to be abandoned. Cultural events—festivals, concerts, talks devoted to the preservation of culture—are often held in Dagestan. Community members who have shifted to Russian can still be involved in passing on their cultural heritage to their children. Social media can also play a role at this level in addition to the level of the macrolanguage. This is especially promising since the local varieties are likely to continue to function solely in the oral sphere.

Dargwa is at a crossroads. While the language is still in vigorous use in many homes and communities, there are also numerous danger signs regarding its continued maintenance. It is up to the Dargwa people to decide what role Literary Dargwa and the local varieties will play in their communities, but the desires of the people need to be supported by governmental institutions (especially the schools) and non-governmental agencies.
Appendix A: Questionnaire Used in Stage 1

The Russian questionnaire used in stage 1 research is given in Appendix A.1. The English translation of the questionnaire is given in Appendix A.2.

A.1 Questionnaire in Russian

Демографическая информация

- Имя
- Место
- Дата рождения
- Пол

A. Фоновые вопросы

- На каком языке говорили в детстве?
- На каком языке говорили окружающие люди?
- На каком языке говорите больше всего в данный момент?
- Какое учебное заведение закончили?

B. Основные вопросы

1. Какие языки вы используете?
2. На каком языке Вы смотрите телевизор? …читаете газеты?
3. Вы понимаете людей из других сел? из каких?
4. На каких языках говорят люди в вашем селе?
5. Где говорят на языке, похожем на ваш?
6. Какой язык для вас самый важный?
7. Сколько школ в вашем поселке? До какого класса ведется обучение?
8. Много ли в вашем селе даргинцев? Сколько примерно?
9. Есть ли на вашем языке песни, стихи, сказки?

В. Использование и важность

1. Какой язык Вы используете?
   a. с родственниками
   b. с родителями
   v. с детьми
   g. на каком языке Вы думаете
   d. на базаре
   e. когда считаете
   ж. когда ссоритесь
   z. когда пишете письмо, СМС
   i. для молитвы
   й. с коллегами
к. для чтения
л. для обсуждения сложных тем

2. Насколько важен каждый язык для общения с другими людьми? (очень важен, важен, не очень важен, совсем не важен)
   а. родной
   б. другой диалект
   в. литературный даргинский
   г. русский

3. Насколько важен каждый язык для работы? (очень важен, важен, не очень важен, совсем не важен)
   а. родной
   б. другой диалект
   в. литературный даргинский
   г. русский

4. Какой язык более престижный?

5. Насколько важен каждый вопрос, чтобы открыть вам больше возможностей (для работы, для учебы, для жизни)? (очень важен, важен, не очень важен, совсем не важен)
   а. родной
   б. другой диалект
   в. литературный даргинский
   г. русский

6. Насколько важен каждый язык для религии? (очень важен, важен, не очень важен, совсем не важен)
   а. родной
   б. другой диалект
   в. литературный даргинский
   г. русский

7. На каком языке дети говорят между собой?

8. Какие еще языки Вы хотели бы знать?

Г. Уровень владения литературным даргинским

1. Насколько Вы знаете литературный даргинский? (понимаю, почти понимаю, плохо понимаю, не понимаю)

2. Как и где Вы выучили литературный даргинский?

3. Знаете ли Вы кого-нибудь, кто хорошо знает литературный?

4. Насколько важно понимать и читать на литературном? (очень важно, важно, не очень важно, совсем не важно)

5. Ваши дети в школе изучают родной язык?

6. Нужно ли преподавать в школах родной и литературный язык?

7. Вы бы хотели читать что-нибудь на даргинском?

8. Если бы местная организация проводила бы курсы по даргинскому, Вы бы ходили?

9. Другим людям в вашей местности был бы интересен этот курс?

10. Какое будущее у вашего языка? Что с ним будет через 5–6 лет?
A.2  Questionnaire in English

Demographic Information

- Name
- Place
- Year of Birth
- Gender

A.2.1  Background questions

- What language did you speak in childhood?
- What language did the surrounding people speak?
- What language do you speak the most at the moment?
- What level of schooling did you finish?

A.2.2  General questions

1. What languages do you use?
2. What language do you watch television in? ...read the newspaper in?
3. Do you understand people from other villages? Which ones?
4. What languages do people in your village speak?
5. Where do people speak a language similar to yours?
6. What is the most important language for you?
7. How many schools are there in your village? What level do they go to?
8. Are there many Dargwa people in your village? Approximately how many?
9. Do you have songs, poems, fairy tales in your language?

A.2.3  Language use and importance

1. What language do you use
   a. with relatives
   b. with parents
   c. with children
   d. when thinking
   e. at the bazaar
   f. when you count
   g. when quarreling
   h. when writing a letter, SMS
   i. for prayer
   j. with colleagues
   k. for reading
   l. to discuss difficult topics
2. How important is each language to communicate with other people? (very important, important, not very important, not at all important)
   a. your variety
   b. other varieties
c. Literary Dargwa  
d. Russian

3. How important is every language for work? (very important, important, not very important, not at all important)  
a. your variety  
b. other varieties  
c. Literary Dargwa  
d. Russian

4. Which language is most prestigious?  

5. How important is each question to open up more opportunities for you (for work, for study, for living)?  
a. your variety  
b. other varieties  
c. Literary Dargwa  
d. Russian

6. How important is each language to religion?  
a. your variety  
b. other varieties  
c. Literary Dargwa  
d. Russian

7. What language do children speak among themselves?  

8. What other languages would you like to know?

A.2.4 Level of proficiency in Literary Dargwa

1. How well do you know Literary Dargwa? (understand, almost understand, do not understand well, do not understand)  

2. How and where did you learn Literary Dargwa?  

3. Do you know anyone who knows Literary Dargwa well?  

4. How important is it to understand and read Literary Dargwa? (very important, important, not very important, not at all important)  

5. Are your children learning their local variety at school?  

6. Is it necessary to teach local varieties and the literary language in schools?  

7. Would you like to read something in Dargwa?  

8. If a local organization conducted Literary Dargwa courses, would you go?  

9. Would other people in your area be interested a course in Literary Dargwa?  

10. What is the future of your language? What will happen to it in 5–6 years?
Appendix B: Texts Used in RTTs

Five texts were used in the RTTs, one each from the Kaitag, Kubachi, Tsudaqar, Literary Dargwa, and Muira varieties. The translations of these texts are given below.

B.1 Kaitag text

The Kaitag text was recorded in Makhachkala by a 55-year-old woman. She told us the recipe for cooking chudu.44

Today we will prepare chudu. In order to prepare chudu, we will knead the dough. To knead the dough, we sift the flour, put the salt, yeast, and water into the flour, and begin to knead. We cover the mixed dough with a cloth and leave it for a time, while we make the filling. We’ll clean, wash and finely chop potatoes, peel and chop onions. We will put more salt there, add pepper, cumin, and add meat. The meat can be either beef or lamb.

B.2 Kubachi texts

The Kubachi text was written by a 35-year-old Kubachi woman who speaks fluent Kubachi even though she lives in Makhachkala. She wrote and read the following parable.

Once upon a time there lived a son, a daughter-in-law, a grandson, and a mother-in-law.
The daughter-in-law said to her husband, “Get rid of your mother.”
“How?”
“We will bring her to watch her grandson tonight, and at night, when she falls asleep, will cut her with an axe.”
“I cannot,” said the husband.
“I will kill her!” said the wife.
This was heard by their son. He handed it all over to his grandmother.
“What do they want from me?” thought the grandmother.
She decided to go to the mother of the daughter-in-law and said, “Since I cannot see my grandson today, you go.”
“Fine,” she answered.
She went (to her daughter’s house). The daughter and son-in-law were not there; they were visiting. They did not see her. The husband and wife returned home late at night.
“You, me, you-me.” The daughter-in-law swung her axe and struck. Then she looked, and there was her mother.

B.3 Tsudaqar text

The Tsudakhar text was recorded by an 83-year-old resident of the village of Kuppa, a paleontologist, local historian, and historian. He told us the following story from his life.

Once I was at home, and my wife left for Makhachkala. It was close to fall, when it turned out that she would arrive the next day. A car full of pumpkins came to the hospital in our village. I asked him to drive this car close to my home. There were big pumpkins that I could hardly lift. I bought ten pumpkins and carried them home. I brought them and put the pumpkins in my garden. In the garden there were small, stunted (bad) pumpkins, and next to them I put large pumpkins, as if they had grown there. The next day my wife came and, when she climbed the stairs, I saw these big pumpkins and said: “Mashalla, this year there is a good harvest of pumpkins!”

44 As noted in footnote 27, chudu is a traditional Dagestani dish.
B.4 Literary Dargwa text

The text in Literary Dargwa was written and recorded by a famous Dargwa poet.

Mom, do not buy me expensive dresses. I'll put on a cotton dress. I will become like a breeze, like a scrap of a blooming garden. Although the whole world will change, the mountains will never change. In the warm edges of the mountain, eagles will not fly away. Fast, hungry birds will not die of hunger. Velvet dresses will not light the heart from the inside. I want to leave my heart open for a great and pure love. I want to meet the test of fate with a bright face. My orientation, let it be where the truth is. I want to stay the way I am, no matter how the land has changed.

B.5 Muira text

The text from the Muira variety was recorded by a researcher at the Institute of Language, Literature and Art who is 61 years old. He spends a considerable amount of time studying his native language. In this text, he told us about the family craft, which is passed on in Kharbuk from generation to generation.

My father was a blacksmith. He got up very early in the morning, before dawn, while it was still dark and made horseshoes and nails for ten horses. My father said he had enough light from his forge to make horseshoes and nails. Sometimes he got me up, too, so I worked the bellows. As a small child, I wondered why my father worked in the dark. We finished at daybreak, washed ourselves, and had breakfast after that. My father always told me: “You cannot eat without work.”

45 The word translated as ‘orientation’ is the Arabic word qibla, the direction in which a Muslim should face when praying, that is, towards Mecca. The word has been borrowed into Dargwa, and can now be considered part of the Dargwa vocabulary.
Appendix C: RTT Scores

In table 15 we show the percentages for each respondent for each text. The first two letters of the ID give the variety for each respondent: Ka(itag), Ku(bachi), Aq(usha) and Ts(udaqar). The columns identify the five texts: Ka(itag), Ku(bachi), Mu(ira), Ts(udaqar) and L(iterary) D(argwa). An em-dash (—) indicates there is no score because the text is from the variety spoken by the respondent and so the respondent did not attempt the text in question. Age groups are indicated as Y for less than 30, M for 30 to 50, and O for over 50.

<table>
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<th>ID</th>
<th>Age Group</th>
<th>Gender</th>
<th>Ka</th>
<th>Ku</th>
<th>Mu</th>
<th>Ts</th>
<th>LD</th>
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<td>F</td>
<td>—</td>
<td>31.0</td>
<td>39.0</td>
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</tr>
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<td>21.9</td>
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<tr>
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<td>30.0</td>
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Bykhovskaya, S. L. [Быховская С. Л.]. 1940b. Perežitki ekskljuziva i enkljuziva v darginskich dialektach [Пережитки эксклюзива и энклюзива в даргинских диалектах / Relics of exclusive and inclusive in Dargin dialects]. *Jazyk i myšdenie [Язык и мышдение / Language and Thought]* 17.


