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QUANTIFYING PHONETIC ADAPTATIONS OF RUSSIAN LOANWORDS IN DOLGAN

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Abstract

The article presents a – to the best of the author’s knowledge – new method of preparing data for quantification of loanword adaptation, together with two of its possible uses. The method is particularly fit for poorly investigated languages where a great deal of data, especially socio-linguistic, are missing. It is illustrated with the example of Russian loanwords in Dolgan. The result is an attempt to measure the commonness and meaningfulness of adaptations, and an index of loanword nativization.

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0. Rationale

Russian and Dolgan¹ sound systems can certainly be called incongruent. Russian loanwords in Dolgan are therefore subject to quite a large number of various phonetic

¹ A North-Siberian Turkic language spoken by ca. 5000 people in the Taymyr Peninsula. It emerged in the 16th or early 17th c. when a group of Evenks from the area of the Vilyuy River, switched to Yakut. Modern Dolgan is still closely related to the language it has forked from. In fact, due to the high prestige of Yakut, even some native speakers consider Dolgan to be a dialect, not a separate language. (DW: 13n.)

adaptations.² It seems natural that not all Russian sounds are disconcerting for Dolgan speakers in the same measure, and so, not all adaptations are equally regular.

Many adaptations appear to be what could be called ‘allo-adaptations’; e.g. Russ. *f* and *v* are usually adapted to *p* and *b* but the exact outcome does not wholly depend on the voiceness of the etymon. However, in most cases the decisive factors have not yet been found, or even searched for.

Different degrees of nativization cannot be solely explained by their affiliation to different historical strata:

ein hoher Adaptationsgrad muß nicht unbedingt das höhere Alter des Lehnworts bedeuten, sondern kann z.B. auch aus der Aussprache der älteren (aber immer noch lebenden) Generationen von Dolganen resultieren (KA: 23).

The available sources, however, do not specify the age, knowledge of Russian or essentially any other sociolinguistic information about the speakers from whom the material was collected. Moreover, pre-19th c., or indeed pre-20th c., sources are, to say the least, scarce.

It is also unlikely that the different degrees of nativization should be explained by dialectal variation. In general, little is known about Dolgan dialects but it appears that not only are there very few of them but also that the differences between them can be safely ignored.

The aim of this article is to present a method of data preparation which can be used for poorly investigated languages, like Dolgan, and two of its possible applications, one for quantifying adaptations and the other for quantifying nativization.

First, I will: **1.** present the method in theory, **2.** exemplify it by employing it to Russian loanwords in Dolgan, **3.** present its possible applications for quantifying **3.1.** adaptations and **3.2.** nativization, and **4.** try to honestly confront its strong and weak points. Then I will **APPENDIX 1.** give an account of my other, failed attempt at describing the adaptations of our loanwords, and **APPENDIX 2.** present the material itself.

1. Data preparation

I believe that the method of data preparation which I present here, can be used for more than two applications proposed in 3.1. and 3.2. I decided therefore to split the theoretical description (in 1.) from a practical application (in 2.; all subsection numbers match).

The general idea behind the method is that all adaptations are reduced to the same number of possible outcomes, and their co-occurrence is counted pairwise.

² For clarity, I will use the term *adaptation* in a narrowed meaning of ‘a specific phonetic change applied to one or more loanwords’, e.g. *f* > *p* as in Russ. *Fedós’ja* > Dolg. *Pödüössä*. I will also use the term *nativization* to denote ‘the amount of phonetic adjustment (*adaptation* in a wider sense) applied to a loanword’, e.g. I consider Russ. *cvet* > Dolg. ≡ to be of a low degree of nativization and > *hibiät* to be of a high degree.

1. The first step is to gather enough material to ensure that the results are statistically valid.

As the number of loanwords from one language is limited at any particular point in time, and is usually not very high, it would be best to consider them all. In the case of living languages, however, this attitude may result in the inclusion of a great number of fremdwörter, which are often very difficult or impossible to tell apart from real loanwords. Cf. also APPENDIX 2.

2. The second step is to identify the adaptations applied and pick the ones which are relatively common; again, this is to ensure that the results are statistically valid.

In under-represented adaptations, the frequencies of their co-occurrence with other adaptations (see 1.5., 2.5. below), tend to swing from between 0 and 100%. In all probability, this does not reflect their real nature, and is really a random result, as only a couple of examples are available.

3. Then, all the words are examined from the point of view of the chosen adaptations.
4. The next step is to reduce the number of all possible outcomes of each adaptation to one level.³

This point is crucial to obtain a sort of common denominator. It is possible to see how often an application of one adaptation co-occurs with the (non-)application of another one, but only if they are both reduced to the same number of outcomes – or in practice, are regarded as on-off only. There does not seem to be any objective way of comparing an adaptation which results in, say, five different renderings with one that results only in three.

Apart from the above, different renderings usually depend on different phonetic surroundings and also morphological and other factors as well. In the best case, it could seriously complicate the calculations and thus make them much more fallible; in the worst case, it would render the comparison impossible. A reduction such as the one proposed here, irons out all the uncertainties.

It is for this reason that I do not attempt to calculate here phonetic distance. Very comprehensive and detailed descriptions of phonology, and of loanword adaptation are only available for a relatively small number of languages, and without taking these sources of information into account, such calculations would be irrelevant.

5. Next, frequencies and average frequencies of co-occurrence are calculated for all adaptation pairs.⁴

³ In theory, it should be possible to consider for each adaptation as many outcomes as are had by the adaptation which results in the lowest number. I suppose, however, that in practice it will be very rare to come across a group of loanwords where all adaptations have at least three or more possible outcomes. In the case of Russian loanwords in Dolgan, three out of twelve adaptations only had two.

⁴ Considering all adaptations pairwise only is a necessity for languages with a relatively low number of loanwords available. The 1169 words I chose as my base (see APPENDIX 2.) have proven to be far too little to yield credible results when I tried to compare all the adaptations in threes. Cf. 2.5.

While all adaptations are essentially independent (see APPENDIX 1.), it is often the case that in a certain pair of adaptations one is less popular and thus makes the impression of ‘triggering’ the other. (Examples with only the unpopular adaptation applied will be naturally less numerous than those with only the popular one applied, resulting in different frequencies of co-occurrence, depending on which adaptation is chosen as the starting point.)

If, on average, an adaptation is very rarely ‘triggered’ by the application of other adaptations, then one can conclude that it only appears in the most nativized words. If it is very often ‘triggered’ by the non-application of other adaptations, it means that it is close to obligatory even in less nativized words. If the application of one adaptation turns out to always come together with the non-application of another one, and they are not mutually exclusive, then in all probability the number of examined examples is too low.

Cf. also 3.1.

2. Example

1. I gathered the material from four sources (chronologically): DW, DWS, KA and SRZ. I only took into consideration those words whose origin is quite certain. I omitted ca. 65 words and accepted 1169. See APPENDIX 2. for more details.
2. I chose twelve adaptations. For brevity, I will refer to them by the symbols explained below (ordered by the number of examples; see 2.4.):

 V Rendering of the Russian accented vowel.

I consider this adaptation unclear (= ‘not applicable’ in other adaptations) when the Dolgan form contains more than one long vowel or diphthong, or if it is not in the expected syllable, e.g. Russ. *pámjat* > Dolg. *pāmīt*, *tjuŋják* > *tūpāk*, *cená* > *hyana* or *ruká* > *urūka*.

 AE Settling of the front-back harmony.

Naturally, I only took into consideration those words whose Russian form is not harmonic from the Dolgan point of view. Particularly interesting are the four cases in which the harmony was destroyed (cf. 2.4. below): Russ. *doská* > Dolg. *döska*, *Már’ja* > *Marij*, *pámjat’* > *pāmīt*, *pāmīt*. Most probably, these forms were borrowed from a quick and not very careful pronunciation with highly reduced vowels, and the borrower did not know or ignored their spelling.

 F Adaptation of *f* and *v* (missing from the Dolgan native sound system).

 CC Adaptation of initial consonant clusters (missing from the Dolgan native sound system).

 SV Adaptation of initial *c*-, *č*-, *s*-, *š*-, *z*- and *ž*-.

All initial sibilants changed in Dolgan into *h*. Because, however, initial consonant clusters are not allowed, this shift always happened in a prevocalic position. When the Russian etymon begins with a consonant cluster whose first sound is *c*, *č*, *s*, *š*, *z* or *ž*, and which is not repaired, I consider this to be

a surrounding disallowing the S- > h- change. Naturally, I also mark this adaptation as not applicable if the Russian word does not begin with a c, č, s, š, z or ž. Cf. VSV below.

VSV Adaptation of intervocalic c, č, s, š, z and ž.

See mutatis mutandis SV above. Consonant clusters are allowed in in- and auslaut in Dolgan. In this position, however, the sibilants did not change to h. Of course, I only take into consideration the Dolgan phonetic shape (see e.g. Russ. *bočku* > Dolg. *bočuku*, *predsedátel'* > *pirisidātäl*, *pášennyj* > *pāsnaj*).

PL Progressive labialization caused by ě or ó.

In theory, labialization (labial attraction) could be caused by ě, o, ó, u and ú. In practice however, o, u and ú seem to be causing it so sporadically that I decided not to include them in the examination of this adaptation.

I also excluded vowels inserted by Dolgans for the purpose of avoiding consonant clusters as in almost all the cases they are solely dependent on the vowel in one of the surrounding syllables, usually the following one; e.g. Russ. *ključ* > Dolg. *külūs*, *Prós'ka* > *Poroskuo*.

Also, I consider renderings of o irrelevant. It is impossible to tell apart the cases in which the Russian speaker from whom the word had been borrowed, did not reduce o to Dolg. /a/, from those which have undergone labialization. It is easy to identify words which were borrowed from a reduced pronunciation (e.g. Russ. *górod* > Dolg. *gorat*, *lopáta* > *lapāta*) but including them and excluding all the uncertain cases would be very unbalanced and most probably would result in a skewed picture.

RL Regressive labialization caused by ě or ó.

See PL above.

NJN Application of a Dolgan consonant assimilation.

There is a set of regular, systematic consonant assimilations applied to Dolgan words on morpheme boundaries. It happens, however, that they are also applied to loanwords, and not necessarily on morpheme boundaries alone. Somewhat surprisingly, progressive assimilations – even though many more of them are in force for Dolgan words – turned out to be applied only very rarely. I have therefore limited myself to bilateral and regressive ones (cf. PL above): *-np-* > *-mm-*, *-ns-* > *-ńń-*, *-ng-* > *-ŋŋ-*, *-tk-* > *-kk-*, *-tp-* > *-pp-* and *-ts-* > *-čč-*. I tried to maximize the number of findings by including such combinations as *-dk-* (besides *-tk-*), *-dp-*, *-tz-* &c., but I only managed to identify seven cases (cf. 2.4 below): Russ. *cvetki* > Dolg. *hibäkki*, *lódka* > *lokka*, *Matvéj* > **Mätpěj* > *Mäkkäj*, *otvét* > *äppiät*, *Pét'ka* > *Päkkä*, *Pökkö* and *vétka* > *bäkkä*.

X Adaptation of x.

C Adaptation of c (missing from the Dolgan native sound system).

Ž Adaptation of ž (missing from the Dolgan native sound system).

I excluded all cases of ž before a voiceless consonant and in auslaut, where it is pronounced [š] in Russian.

3. See APPENDIX 2.
4. I reduced the number of considered outcomes as below. Note that the numbers represent occurrences, not words with the given adaptation, and might add up to more than 1169; e.g. *Varvár'ev* is one word but contains three occurrences of F. (Table 1.)
5. I counted for each pair of adaptations the number of co-occurrences of reduced outcomes. (Table 2.)

There turned out to be no examples at all for three combinations: NŃ-X, X-C and C-Ž. This seems to set the limit for the minimal number of examples required for an adaptation to be considered. If I had included adaptations which are even more under-represented than these, there would be so few examples available for them that the final numerical result would be barely credible.

From Table 2., for each adaptation I calculated how often its application co-occurs with applications and non-applications of all the other adaptations; I skipped calculating the frequencies of the co-occurrence of non-applications as they are but complements to a 100%. (Table 3.)

3. Possible uses

3.1. Commonness and meaningfulness of adaptations

I used the data from 2.5. (Table 3.) to calculate how often, on average, each adaptation is 'triggered' by the (non-)application of all the other adaptations. (Table 4.) The two numbers thus obtained represent the degree of **commonness** of each adaptation in more nativized words and in those that have been less nativized. Two things should be noted:

1. I calculated how often adaptations are 'triggered', not how often they 'trigger' other adaptations, i.e. vertically rather than horizontally in Table 3. Firstly, this is because I wanted to find out how common they are in more and less nativized words, and secondly because frequencies, if calculated starting with very rare adaptations, can change dramatically with just a few examples and therefore skew the picture.
2. Both numbers should be calculated from frequencies represented as a percentage (Table 3.), not from absolute numbers of examples (Table 2.). Otherwise, adaptations with a large number of examples would dominate the under-represented ones, and distort the results.

I also put the data from table 4. on to a chart for greater clarity (Chart 1). It is constructed as follows:

1. Adaptations are ordered according to the number of examples, beginning with the most numerous ones (the numbers below the adaptation symbols; cf. 2.2.). The distance from the left edge of the chart is therefore also the degree of credibility of the result.

2. The top of each bar illustrates how often the given adaptation is 'triggered' by the application of other adaptations, and conversely its bottom reflects how often it is 'triggered' by non-application of other adaptations (cf. 1.5.), i.e. how often it is applied to generally less nativized words, and how often to those that are generally more nativized.

The higher the top of the bar is, the more disturbing the given Russian sound is for Dolgan speakers with a poor command of Russian. The lower its bottom is, the less disturbing it is for those with a better knowledge of Russian. The longer the bar is, the bigger the difference is between how different speakers treat the sound. For example, it can be observed that such adaptations as PL or NŃN are neither very popular with more nativizing speakers nor with those who nativize less. C, on the other hand, is almost an absolute necessity for speakers who know less Russian (or make less use of their knowledge), and is still quite popular with those who are more proficient in the language. Finally, V̇ and RL are placed in the middle: they are not found very often in the more nativized words, but are also not particularly rare in the less nativized ones.

This data can also be used to find out how **meaningful** given adaptations are. I considered six cases:

1. An adaptation is always applied to both more and less nativized words.
2. An adaptation is never applied to either more or less nativized words.
3. An adaptation is always applied to more nativized words but never to those that are less nativized.
4. An adaptation is applied to a half of the more nativized, and to a half that are less nativized words.
5. An adaptation is almost always applied to both, more and less nativized words.
6. An adaptation is almost never applied to either more or less nativized words.

Adaptations 1. and 2. would be extremely meaningful only if they were not applied or applied to a word, respectively; but such cases do not exist. Adaptations 3. and 4. are more meaningful but still not very strong. Adaptations 5. and 6., on the other hand, both convey a great deal of information on the degree of nativization of a word but essentially only if they are not applied or are applied respectively.

This led me to quantify the meaningfulness of an adaptation by its commonness in more and less nativized words (C_m and C_l) as $100 - C_m - C_l$, which yields the following results for adaptations 1. and 2.: -100 and 100, for adaptations 3. and 4.: 0, and for adaptations 5. and 6. (with $C_m=90$, $C_l=80$ and $C_m=20$, $C_l=5$): -70 and 75, respectively. That is, -100 is the maximal score for non-application and 100 is the maximal score for application.

Adaptations of Russian loanwords in Dolgan can be assigned the following weights: F: -41.17; C: -28.84; CC: -21.77; AE: -16.62; SV: -8.99; V̇: 0.49; RL: 10.01; X: 16.36; Ž: 49.73; VSV: 51.68; PL: 71.98; NŃN: 75.22.

See 3.2. on how these numbers can be used further, and APPENDIX 1. for a different view on the meaningfulness of adaptations.

3.2. Index of nativization

The weights assigned to adaptations in 3.1. can be used to quantify the degree of nativization of a loanword. I did this in two steps:

1. First, I calculated for each loanword three values:
 - the minimal possible score, i.e. the sum of the weights of all adaptations with the negative weights that could be applied to it;
 - the maximal possible score, i.e. the sum of the weights of all adaptations with the positive weights that could be applied to it;
 - the actual score, i.e. the sum of the weights of all adaptations (not) applied to it.

Example: Russ. *Varvár'ev* > Dolg. *barbārajep*:

- the minimal possible score = -16.62 (AE) – 41.17 (F) $\times 3 = -140.13$;⁵
 - the maximal possible score = 0.49 (V̇);
 - the actual score = 0.49 (V̇+) – 16.62 (AE-) = -16.13 .
2. Naturally, not every etymon offends the phonology of the borrowing language to the same degree. The actual score of a word is only meaningful when presented together with its minimal and maximal possible scores. For example: Russ. *Nikólin* > Dolg. *Mikuolin* has the score of -16.13 , too, but its minimal and maximal possible scores are -16.62 and 82.48 ; *predsedátel'* > *pirisidätäl*, with the same actual score, has a range of -38.39 to 127.39 .

For this reason, scores need to be scaled to a common range.⁶ I chose the range 0–1 and obtained 0.00494 for *Mikuolin*, 0.13427 for *pirisidätäl* and 0.88181 for *barbārajep*.

It needs to be remembered that an index calculated this way is most reliable for words to which numerous adaptations are applicable. Borrowings such as e.g. Russ. *pop* > Dolg. *puop* or *tak* > *tāk* will score 1, the same as e.g. *cérkov'* > *hārkāp* or *mešóček* > *möhōččük* simply because they have the only applicable adaptation (V̇) applied.

It also needs to be noted that this index might be very imprecise in the rare cases of loanwords to which many irregular adaptations have been applied. For example, Russ. *olád'ja* > Dolg. *alāžy* and *oktjābr'* > *öktöp* both score 1 but the range is in both cases only 0 to 0.49; i.e. in both cases, V̇ is the only adaptation that could be considered. Had they been rendered as **alāžy* and **öktöp*, they would both score 0.

The effectiveness of this method can perhaps be best seen in the example of those words which have been borrowed more than once and nativized in different ways. In the case of Russian loanwords in Dolgan, there are a total of 183 such words,

⁵ Every occurrence of every adaptation needs to be counted separately, as in rare cases it might happen that an adaptation was not applied to all the offending sounds of the etymon; cf. e.g. Russ. *Ivánov* > Dolg. *ujbānov* with F+,- or *mešóček* > *mösōččük* with VSV-,+.

⁶ This is naturally not possible when the minimal and maximal possible scores are equal. Out of 1169 loanwords I examined, this was the case in eight: *bolók* > *buolak*, *doská* > *duoska*, *duoskā*, *júkola* > *žuhāla*, *žukalā*, *kudrjá* > *kūdara.lāk*, *Nástja* > *Nastāj* and *ruká* > *urūka*. All these words have all the adaptations labelled as not applicable, and therefore both, the minimal and maximal scores are zero.

including 29 with more than three renderings. Below are listed five that seem to be phonetically the most interesting:⁷

<i>baskój ></i>		<i>sundúk ></i>	
0.00000	<i>baskoj</i>	0.00000	<i>sunduk</i>
0.04667	<i>baskōj</i>	0.05169	<i>sundūk</i>
0.04667	<i>baskuoj</i>	0.94831	<i>hunduk</i>
0.95333	<i>boskuj</i>	1.00000	<i>hundūk</i>
0.95333	<i>moskuj</i>		
1.00000	<i>boskuoj</i>	<i>celkóvyj ></i>	
1.00000	<i>moskuoj.kān</i>	0.53964	<i>halkuobaj</i>
		0.59309	<i>holkuobaj</i>
		0.59585	<i>holkuobaj</i>
		0.99725	<i>holkobj</i>
<i>saf'ján ></i>			
0.81283	<i>sapjan</i>		
0.99033	<i>hapyjan</i>		
1.00000	<i>hapjān</i>		
1.00000	<i>happyjān</i>		
1.00000	<i>hapyjān</i>		
<i>svin'já ></i>			
0.00000	<i>svińja</i>		
0.70687	<i>sibinija</i>		
0.89353	<i>sibińňä</i>		
0.99450	<i>hibińňä</i>		
1.00000	<i>hibińňä</i>		

The distribution of indices matches the expectations (kernel density estimation in Chart 2.): words scoring 0 and 1 overwhelmingly dominate those with middle values.

Due to the scarcity of factual evidence, it might be assumed at a higher or lower degree of conventionality that the Russian influence on Dolgan began after the conquest of Siberia in the 17th c. but only gained a considerable impetus in the second half of the 20th c.⁸ Knowledge of Russian among Dolgans was not common until relatively recently. Today's younger generation are very often bilingual, even up to the point of considering Russian to be their first language, while the oldest generation often have only the most basic command of the language, if any. It is therefore understandable that the numbers of both new and hardly nativized loanwords or fremdwörter and that of old and highly nativized ones, are very high – and that, at the same time, those partially nativized are considerably outnumbered. There are 460 words with an index of 0, 350 words with middle indices and 352 words with an index of 1. In reality, the number of partially nativized words is surely higher, at the cost of words with an index of 0; cf. APPENDIX 2.

⁷ The remaining 24 are: (seven renderings) *učitel'*; (six renderings) *čajnik, doská, xozjain*, (five renderings) *lódka, očág, Pét'ka, týsjača*, (four renderings) *eščě, gumági, júkola, káter, kníga, koróva, moróška, Ovdót'já, rubáxa, sokúj, stená, škóla, tolokno, trubá, zanáves* and *zérkalo*.

⁸ On the influence of Russian in Siberia cf. Janhunen 1985 and Helimski 1996.

4. Summary

The method of data preparation presented here naturally has its strong and weak points. I will try to honestly enumerate the most important ones:

Weak points	Strong points
Requires a large word base. Results obtained from sparse examples will probably not be representative.	Gap resistant. Even if single adaptations are under-represented, the overall picture should be close to true.
Languages' sound systems need to be considerably different. Borrowings from languages with similar sound systems have rarely changed enough to ensure unobvious results.	Can be applied to poorly investigated languages. Thanks to operating on reduced descriptions, it does not require that each single borrowing and adaptation need to be absolutely clear.
Time-consuming.	Can be at least partly automatized.

Abbreviations

Dolg. = Dolgan | **NPers.** = New Persian | **Russ.** = Russian | **Yak.** = Yakut

References

- Anikin A.E. 2003. *Ètimologičeskij slovar' russkix zaimstvovanij w jazykax Sibiri*. Novosibirsk.
- DW = Stachowski 1993.
- DWS = Stachowski 1998.
- Filin F.P. et al. (eds.) 1965. – *Slovar' russkix narodnyx govorov*. Moskva, Leningrad.
- Helimski (= Xelimskij) E. 1996. Faktor Mangazejskogo morskogo xoda v ètnonimii i toponimii. – *Slavjanskije jazyki v zerkale neslavjanskogo okruženija. Tezisy meždunarodnoj konferencii*. Moskva: 74–76.
- Janhunen J. 1985. The Tungus Peoples and the Conquest of Siberia. – Jarring G., Rosén S. (eds.) *Altaistic Studies* [PIAC 25]. Stockholm: 73–77.
- KA = Stachowski 1999.
- Petrovskij N.A. 1966. *Slovar' russkix ličnyx imen*. Moskva.
- SRZ = Anikin 2003.
- Stachowski M. 1993. *Dolganischer Wortschatz*. Kraków.
- Stachowski M. 1995. *Studien zum Wortschatz der jakutischen Übersetzung des Neuen Testaments* [= *Prace Komisji Orientalistycznej* 23]. Kraków.
- Stachowski M. 1998. *Dolganischer Wortschatz. Supplementband*. Kraków.
- Stachowski M. 1999. *Konsonantenadaptation russischer Lehnwörter im Dolganischen* [= *Studia Turcologica Cracoviensia* 6]. Kraków.

APPENDIX 1. A failed attempt: levels

My first attempt to make use of my data failed. I believe that it might nevertheless be useful to give a short account of it here: firstly, because it suggests more convincingly than common sense alone that adaptations are independent from one another; and secondly, because it might save the time of anyone who has the same idea.

I started with a group of 605 loanwords and seven adaptations applied to them. The first examination of patterns of co-occurrence left me with the impression that adaptations might be following an implicational hierarchy. Soon, however, I found examples that seemed to contradict my drafts. The seeming regularity of patterns, nevertheless, made me conjecture that they are organized in a pattern of levels; or in other words that they do observe a hierarchy, albeit one that is somewhat less rigid.

I managed to draw a very clear picture of four distinctive levels of adaptations (Chart 3.). Examples appeared reasonable: Russ. *sovétskij* > Dolg. ¹*sovetskaj*, ²*säbiäskäj*; *svéči* > ²*sibäči*, ³*häbiči*; *trjápka* > ¹*trjapka*, ⁴*tiräpkä* &c.

In general, it is a true picture but the method which created it has a very serious defect. Naturally, when two adaptations are assigned to the same level (e.g. *ja* → E and PL+ on level 4), it means that all words on this level should have both adaptations applied to them.⁹ And conversely, when two adaptations are assigned to different levels (e.g. SV > H and CC ≡), it should be expected that they are never applied together to one word. Without this assumption, the division of adaptations between different levels would be entirely devoid of meaning, or at least absolutely arbitrary, and this is precisely what I wanted to avoid. What this means is that it is enough to find a single loanword – compared to the 605 that were examined before – in which two previously non-co-occurring adaptations do come together, to shatter the entire scheme.

Indeed, this is just what happened. When I decided to broaden the word base and include all the loanwords I could find, I was forced to admit that the picture was too clear. When I tried to apply this method to 1169 loanwords, I could distinguish no more than two levels of adaptation, and only a couple of twelve adaptations remained still so clear.

See 3.1. for a more fruitful attempt at quantifying the meaningfulness of adaptations.

APPENDIX 2. Material

As was mentioned before, I collected the material from four sources (chronologically): DW (711 words), DWS (426), KA (616) and SRZ (530). The majority of words and many etymologies there are quoted after some other works. I have not copied full bibliographies.

⁹ Provided, of course, that it is at all possible. In words such as e.g. Russ. *moróška* > Dolg. *morōsko* or *skóbel'* > *küöbüil* (both on level 4), *ja* / *já* could not have induced a shift to front harmony simply because it is not there.

The material collected has therefore various degrees of credibility. Especially unreliable are those words which have been extracted from post-revolutionary dictionaries. Often their spelling follows exactly the Russian orthography, while their pronunciation – the Dolgan sound system; cf. e.g. Yak. *angel* or *krest*, both apparently pronounced velar, as attested in Pl. *angel.lar* and Acc. 3Sg. *kresyn* (Stachowski 1995). It might also very well be that these words are fremdwörter rather than actual loan-words. Unfortunately, since there is no good method to sift them, or to reconstruct the real pronunciation,¹⁰ I chose to accept them at face value.

Essentially, I only picked those words whose origin is not under any doubt. In some cases however, I chose to include a word even though the sources were not unanimous on its etymon, or I proposed a one that is different from the sources. These cases are explained in the footnotes. I omitted those words from DW(S) whose etymology is presented as ‘= Yak. ... < Russ. ...’ if they do not appear elsewhere with a clearer commentary.

Sometimes, the sources are not very precise. SRZ in particular can be singled out, where a list of borrowings is followed by a list of etyma. In such cases I chose the etymon I believed is the source of the Dolgan word. Furthermore, there were other occasions in which there were a few etyma given, but there was no real reason to favour one of them, and choosing any one of them would make no difference whatsoever from the point of view of the adaptations considered in this article. In such cases I chose the literary one, or if all were dialectal (very often the exact dialect was not specified), I selected the first one alphabetically. These cases are not especially marked.

Some words were given without etyma. I supplied them and marked them with an asterisk after the word.

I also took the liberty of introducing some minor corrections without notice:

- When only a part of a word was borrowed, I supplied brackets where they were missing.
- I marked the Russian accent where it was missing: the literary one if it fit the Dolgan long vowel or diphthong, or a dialectal one if it fit the Dolgan rendering better. Where the literary form did not fit the Dolgan rendering and I could not find a dialectal form which would fit it better, I marked *Ŵ* as unclear. I used Filin 1965– and Petrovskij 1966 as the sources for dialectal accentuation.
- Where the Dolgan form is only attested in a derivative, I added a dot if it was missing.
- I deleted ° if it was used in SRZ and the same etymon was cited elsewhere without it or an asterisk.

Bar (|) is used instead of *n/a* and *unclear* (in *Ŵ*) for greater clarity.

¹⁰ Or, *pronunciations*. One word can be read entirely differently by different people.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>abzác</i> > <i>abzac</i> (DW)	-										c		0.00000
<i>aèropórt</i> > <i>aèroport</i> (DW)	-	-						-					0.00000
<i>Afanás(ij)*</i> > <i>Opunās</i> ¹¹ (DW, KA, SRZ)	Ů		p										1.00000
<i>Afanás'jev</i> > <i>opanāsajap</i> ¹² (SRZ)	Ů	+	p, p			s							0.65804
<i>Agafón</i> > <i>Agapun</i> (DWS, KA)	-		p					-					0.79679
<i>Alēksa</i> > <i>Ölüksiä</i> (DWS, KA)	-	+					-	+					0.26872
<i>Aleks(ěj)</i> > <i>Ölös</i> (DW, KA)		+											1.00000
<i>Aléksja</i> > <i>Oluksa</i> (DW, KA)	-	+											0.97136
<i>alfavit</i> > <i>alfavit</i> (DW)	-	-	f, v										0.00000
<i>álgebra</i> > <i>algebra</i> (DW)	-	-											0.00000
<i>ambár</i> > <i>ambar.dāk</i> (DWS, KA, SRZ)	-												0.00000
<i>Ánča</i> > <i>Ánčy</i> (DWS, KA)	Ů												1.00000
<i>Andréj</i> > <i>Öndü</i> (DWS, KA)	Ů	+											1.00000
<i>ángel</i> > <i>angil</i> (DW, KA, SRZ)	-	-							-				0.00000
<i>ángel</i> > <i>ängil</i> (DW, SRZ)	-	+											0.97136
<i>ángel</i> > <i>añil</i> (DW, KA, SRZ)	-	-							-				0.00000
<i>Ánna</i> > <i>Ānna</i> (DW, DWS)	Ů												1.00000
<i>Anúša*</i> > <i>Onōčo</i> (DWS)	Ů					č							0.00939
<i>Ánuš(ka)</i> > <i>Ānys</i> (DWS)	Ů												1.00000

¹¹ DW: < *Afanasij*; KA: < *Afanás* ~ *Apanás* ~ **Opanás*; SRZ (s.v. *Afanás'jev*) < °*Opanás*.

¹² SRZ: << °*Opanás* (cf. *Opunās*).

Russian > Dolgan (sources)

	Ŧ	AE	F	CC	SV	VSV	PL	RL	ŦŦ	X	C	Ž	index
<i>apparát</i> > <i>apparat</i> (DW)	-												0.00000
<i>aprél'</i> > <i>aprel'</i> (DW)	-	-											0.00000
<i>arméec</i> > <i>armeec</i> (DW)	-	-									c		0.00000
<i>Ármija</i> > <i>Armyja</i> (DW)	-	+											0.97136
<i>Arsén(ij)</i> > <i>Arsyan</i> (DW)	ŦŦ	+											1.00000
<i>aršin</i> > <i>arsyn</i> (DW, DWS, SRZ)	Ŧ	+											1.00000
<i>artél'</i> > <i>artiäl</i> (DWS)	ŦŦ	-											0.02864
<i>artél'</i> > <i>artyal</i> (DW, DWS, KA, SRZ)	ŦŦ	+											1.00000
<i>artíst</i> > <i>artist</i> (DWS, KA)	-	-											0.00000
<i>arxierėj</i> > <i>arxiläj</i> (DW, SRZ)	-	-								x			0.00000
<i>átomnaja</i> > <i>atomnaj</i> (DWS)	-												0.00000
<i>avtomát</i> > <i>avtomat.täk</i> (DW)	-		v										0.00000
<i>avtomatičeskij</i> > <i>avtomatičeskaj</i> (DW)	-	-	v			č							0.00000
<i>avtonómnyj</i> > <i>avtonomnaj</i> (DW)	-		v				-	-					0.00000
<i>bal</i> > <i>bäl</i> (DWS)	Ŧ												1.00000
<i>balamút</i> > <i>balamat</i> ¹³ (DWS, SRZ)	-												0.00000
<i>bánja</i> > <i>bänña</i> (DW, KA, SRZ)	Ŧ												1.00000
<i>bännik</i> > <i>bännyk</i> (DW, KA, SRZ)	Ŧ	+											1.00000
<i>barabán</i> > <i>barabän</i> (DW, KA, SRZ)	Ŧ												1.00000

¹³ SRZ: considers *-at* a hint that the word might not be of Russian origin in Dolgan.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>barán</i> > <i>barān</i> ¹⁴ (DW, KA, SRZ)	Ů												1.00000
<i>baskój</i> > <i>baskoj</i> (DW, SRZ)	-							-					0.00000
<i>baskój</i> > <i>baskōj</i> (DW, SRZ)	Ů							-					0.04667
<i>baskój</i> > <i>baskuoj</i> (DW, SRZ)	ŮV							-					0.04667
<i>baskój</i> > <i>boskuj</i> (DWS, SRZ)	-							+					0.95333
<i>baskój</i> > <i>boskuoj</i> (DW, DWS, KA, SRZ)	ŮV							+					1.00000
<i>baskój</i> > <i>moskuj</i> (DWS, SRZ)	-							+					0.95333
<i>baskój</i> > <i>moskuoj.kān</i> (SRZ)	ŮV							+					1.00000
<i>batrāk</i> > <i>batrāk</i> (DW, KA, SRZ)	Ů												1.00000
<i>bečevá</i> > <i>bäčibä.lā</i> (DWS, SRZ)		+	<i>b</i>				č						0.52791
<i>berdánka</i> > <i>birdāky</i> (DW, KA, SRZ)	Ů	-							-				0.00531
<i>bezmén</i> > <i>mäspiän</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>bibliotéka</i> > <i>biblioteka</i> (DW)	-	-											0.00000
<i>bibliotékar'</i> > <i>bibliotekar'</i> (DW)	-	-											0.00000
<i>binókl'</i> > <i>binuok</i> (DWS, KA)	ŮV	-						-					0.01807
<i>blagoslovénie</i> > <i>labaslabyańna</i> (DW, DWS, KA, SRZ)	ŮV	+	<i>b</i>	C ₂									1.00000
<i>blagosloví</i> > <i>blagostobí</i> (DW, KA, SRZ)	Ů	-	<i>b</i>	CC									0.52042
<i>blagosloví</i> > <i>lastabi</i> (DWS, KA, SRZ)	-	-	<i>b</i>	C ₂									0.78626
<i>bljúdce</i> > <i>büülüssä</i> (DW, DWS, KA, SRZ)	Ů	+		CVC							ss		1.00000
<i>bloknót</i> > <i>bloknot</i> (DW)	-			CC									0.00000

¹⁴ DW, SRZ: in two different meanings but phonetically identical.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>bóčka</i> > <i>bočka</i> ¹⁵ (DWS)	-						-						0.00000
<i>bóčku</i> > <i>bočku</i> (DW, DWS, KA, SRZ)	-					č							0.00000
<i>bog</i> > <i>buok</i> (DW, KA, SRZ)	ŮV												1.00000
<i>bogatýr'</i> > <i>bugatýr</i> (DWS)	Ů												1.00000
<i>bogatýr'</i> > <i>bukatýr</i> (DW, DWS, KA, SRZ)	Ů												1.00000
<i>Bogoródica</i> > <i>bogoruodissa</i> (SRZ)	ŮV	-				ss	-				ss		0.47763
<i>bokál</i> > <i>pakál</i> (DW, KA)	Ů												1.00000
<i>bol'nica</i> > <i>bal'ňiha</i> (DW, KA, SRZ)	Ů	+				h					h		1.00000
<i>bol'nica</i> > <i>bal'ňisa</i> (DW, KA, SRZ)	Ů	+				s					s		0.17525
<i>bolók</i> > <i>bolok</i> (DWS)	-												0.00000
<i>bolók</i> > <i>boluok</i> (DW, DWS, SRZ)	ŮV												1.00000
<i>bolók</i> > <i>buolak</i> (DWS)													n/a
<i>Bol'sakón</i> > <i>Bal'sakop</i> (DW, KA)	-		p					-					0.79679
<i>boltáj</i> > <i>baltaj.dā</i> (DW, KA, SRZ)	-												0.00000
<i>boršč</i> > <i>boršč</i> (DW)	-												0.00000
<i>botínka</i> > <i>botinka</i> (DWS, SRZ)	-	-							-				0.00000
<i>brevnó</i> > <i>bärämānā</i> (DWS, KA, SRZ)	-	+	∅	CVC				-					0.88341
<i>brezént</i> > <i>byrysyan</i> (DW, KA, SRZ)	ŮV			CVC		s							0.30105
<i>brigáda</i> > <i>brigada</i> (DW)	-	-		CC									0.00000
<i>brigadír</i> > <i>brigadir</i> (DW)	-	-		CC									0.00000

¹⁵ DW, DWS: does not specify that not from Russian Acc.; KA: < Acc.; SRZ: ? < Acc.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>brigadír</i> > <i>brigadír.dā</i> (DWS)												
Ů	-		CC									0.01260
<i>brus</i> > <i>burūs</i> (DWS, SRZ)												
Ů			CVC									1.00000
<i>budílnik</i> > <i>budilnik</i> (DW)												
-	-											0.00000
<i>bukét</i> > <i>buket</i> (DW)												
-	-											0.00000
<i>búkva</i> > <i>bukpa</i> (DW, KA, SRZ)												
-		<i>p</i>										0.98824
<i>búkva</i> > <i>bukva</i> (DW, KA, SRZ)												
-		<i>v</i>										0.00000
<i>bukvár'</i> > <i>bukubār</i> (DW, KA)												
Ů		<i>b</i>										1.00000
<i>bulát</i> > <i>bulāt</i> ¹⁶ (DWS, SRZ)												
Ů												1.00000
<i>burěnka</i> > <i>Burjonka</i> (DW, KA, SRZ)												
-						-		-				0.00000
<i>butýlka</i> > <i>butūlka</i> (DW, KA, SRZ)												
Ů												1.00000
<i>buvát'</i> > <i>bubāt</i> (DW, DWS, KA, SRZ)												
Ů		<i>b</i>										1.00000
<i>buvát'</i> > <i>buvāt</i> (DW, KA, SRZ)												
Ů		<i>v</i>										0.01176
<i>čaj</i> > <i>čāj</i> (DW)												
Ů				č								0.05169
<i>čajka</i> > <i>čājka</i> (DWS, SRZ)												
Ů				č								0.05169
<i>čajnik</i> > <i>čajnik</i> (DWS, SRZ)												
Ů	-			č								0.01877
<i>čajnik</i> > <i>čajnýk</i> (DW, KA, SRZ)												
-	+			č								0.63678
<i>čajnik</i> > <i>čajnyk</i> (DW, KA)												
Ů	+			č								0.65556
<i>čajnik</i> > <i>čajnýk</i> (DWS, KA, SRZ)												
Ů	+			č								0.65556
<i>čajnik</i> > <i>čānýk</i> (DWS, KA, SRZ)												
Ů	+			č								0.65556
<i>čajnik</i> > <i>čānyk</i> (DW, DWS, KA, SRZ)												
Ů	+			č								0.65556

¹⁶ DWS: = Yak. *bolot* << NPers. *pūlād*; SRZ: *bolot* is Persian but *bulāt* < Russian.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>car'</i> > <i>sar</i> ¹⁷ (DWS, KA, SRZ)												
-				s								0.00000
<i>čas</i> > <i>čas</i> (DW, DWS, SRZ)												
-				č								0.00000
<i>čas</i> > <i>čas</i> (DW, DWS, SRZ)												
Ů				č								0.05169
<i>časka</i> > <i>časky</i> ¹⁸ (DW, DWS, KA, SRZ)												
Ů				č								0.05169
<i>celkóvyj</i> > <i>halkuobaj</i> (DWS)												
ŮV	+	b		h		-	-			h		0.53964
<i>celkóvyj</i> > <i>holkobaj</i> (DW, KA, SRZ)												
-	+	b		h		-	+			h		0.59309
<i>celkóvyj</i> > <i>holkoboj</i> (DW, KA, SRZ)												
-	+	b		h		+	+			h		0.99725
<i>celkóvyj</i> > <i>holkuobaj</i> (DW, DWS, KA, SRZ)												
ŮV	+	b		h		-	+			h		0.59585
<i>cená</i> > <i>hyana</i> (DWS, KA, SRZ)												
	+			h						h		1.00000
<i>čep'</i> > <i>čip</i> (DWS)												
-				č								0.00000
<i>čep'</i> > <i>čyap</i> (DW, DWS, KA)												
ŮV				č								0.05169
<i>čep'</i> > <i>čyp</i> (DW, DWS, KA)												
-				č								0.00000
<i>čerez</i> > <i>čaräs</i> (DW, KA, SRZ)												
Ů				č								0.05169
<i>čerez</i> > <i>t'aräs</i> (DW, SRZ)												
Ů				t'								0.05169
<i>čerkov'</i> > <i>härkäp</i> (DW, KA, SRZ)												
-	+	p		h						h		0.99490
<i>čerkov'</i> > <i>härkäp</i> (DW, KA, SRZ)												
Ů	+	p		h						h		1.00000
<i>černila</i> > <i>čarnilä</i> (DW, SRZ)												
Ů	+			č								0.65556
<i>černyj</i> > <i>černaj</i> (DWS)												
-				č		-						0.00000
<i>čertá</i> > <i>čerta</i> (DW, SRZ)												
-	-			č								0.00000

¹⁷ DWS, KA: < *car'*; SRZ: in Siberian dial. *sar'* is very common. As the exact sounding of the etymon is not certain, I mark the word as *unclear* for C.

¹⁸ DW: = Yak. *časky* < Russ. *časka*; DWS: no etymology; KA: < *časka*; SRZ: -y in place of -a not uncommon.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>dětskij</i> > <i>detskij</i> (DW)	-	-											0.00000
<i>dežúrit</i> > <i>dežurit.tā</i> (DW)	-	-				ž						ž	0.00000
<i>dežúrnyj</i> > <i>dežurnaj</i> (DW)	-	-				ž						ž	0.00000
<i>diftóng</i> > <i>diftong</i> (DW)	-	-	f					-					0.00000
<i>Dmítriev</i> > <i>mītrijep</i> (SRZ)	Ů		p	C ₂									1.00000
<i>Dmítrij</i> > <i>Dimitrij</i> (DWS, KA)	Ů			CVC									1.00000
<i>Dmítrij</i> > <i>Mītrāj</i> (DW, KA)	Ů			C ₂									1.00000
<i>(dó)čista</i> > <i>čistā</i> (DW, SRZ)	-	+			č								0.63678
<i>(dó)čista</i> > <i>čysta</i> (DW, KA, SRZ)	-	+			č								0.63678
<i>doklād</i> > <i>daklāt</i> (DW, KA)	Ů												1.00000
<i>dóktor</i> > <i>duoktur</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>dokúl'</i> > <i>dokūl'</i> ¹⁹ (DW, SRZ)	Ů												1.00000
<i>dolotó</i> > <i>doloto</i> (DW, DWS, SRZ)	-												0.00000
<i>dolotó</i> > <i>dolotō</i> (DWS)	Ů												1.00000
<i>doská</i> > <i>doska</i> (DW, DWS, SRZ)	-												0.00000
<i>doská</i> > <i>döska</i> (DW, SRZ)	-	x											0.00000
<i>doská</i> > <i>doskō</i> (DWS, SRZ)	Ů												1.00000
<i>doská</i> > <i>dosko.lō</i> (DW, KA, SRZ)	-												0.00000
<i>doská</i> > <i>duoska</i> ²⁰ (DW, DWS, SRZ)													n/a

¹⁹ SRZ: no ' but only DWS quoted, so probably a mistake.²⁰ DW: < *doska*; DWS: no etymology; SRZ: < **döska*.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>doská > duoskā</i> (SRZ)												
												n/a
<i>dóved' > duobat.tar</i> (DWS, KA, SRZ)												
ŮV	+	b				-						0.44741
<i>doxtur > dōxtur</i> ²¹ (DW, DWS, KA, SRZ)												
									x			0.00000
<i>doxtur > duoxtūr</i> (DWS, KA, SRZ)												
									x			0.00000
<i>dressiróvannyj > dressirovannaj</i> (DW)												
-	-	v	CC			-	-					0.00000
<i>drob' > drop</i> (DW, KA, SRZ)												
-			CC									0.00000
<i>drob' > durop</i> (DW, KA, SRZ)												
-			CVC									0.97799
<i>dub > dūk</i> (DW, SRZ)												
Ů												1.00000
<i>dúma > dūma</i> (DW, KA, SRZ)												
Ů												1.00000
<i>dúmaj > dumaj.dā</i> (DW, SRZ)												
-												0.00000
<i>dúmaj > dūmaj.dā</i> (DW, KA, SRZ)												
Ů												1.00000
<i>Dúnja > Dūña</i> (DW, KA)												
Ů												1.00000
<i>Dunjáška > Duñaska</i> (DW, KA)												
Ů												1.00000
<i>dušá > duhā</i> (DWS, KA)												
Ů					h							1.00000
<i>(Egá-)Bába > (Žägä-)Bāba</i> ²² (DW, SRZ)												
Ů												1.00000
<i>Egá(-Bāba) > Žägä(-Bāba)</i> ²³ (DW, KA, SRZ)												
-												0.00000
<i>Egór > Žoguor</i> (DW, KA, SRZ)												
ŮV	+						+					1.00000
<i>Egór'ev > Žögüörjāp</i> (SRZ)												
ŮV	+	p				-	+					0.48685

²¹ *Dōxtur* &c.: DW: (*dōxtur* only); < *doktor*; DWS: no etymology; KA: *dōxtur*, *duoktur*, *duoxtur* < *dōktor*; SRZ: forms with -x- < *doxtor* ~ *doxtur*; *duoktur* < *dōktor*.

²² DW: < **Jaga-Baba*; SRZ: < *Jaga-Baba*.

²³ See footnote 22.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>èkskùrsija</i> > <i>èkskursija</i> (DW)	-	-											0.00000
<i>el'</i> > <i>jel'</i> (DW, KA)	-												0.00000
<i>eretnik</i> > <i>žärätinnik</i> (DWS, KA, SRZ)	-												0.00000
<i>Èrka</i> > <i>Žòkkö</i> (DWS, KA)	Ů						+						1.00000
<i>eščë</i> > <i>össö</i> (DW)	-	+						+					0.98193
<i>eščë</i> > <i>össüö</i> (DW, DWS, KA, SRZ)	ŮV	+						+					1.00000
<i>eščë</i> > <i>östö</i> (DW)	-	+						+					0.98193
<i>eščë</i> > <i>ösüö</i> (DW, KA, SRZ)	ŮV	+				s		+					0.34416
<i>èstónec</i> > <i>èstonec</i> (DW)	-	-					-	-			c		0.00000
<i>Evdo(kím)</i> > <i>Žogdö</i> (DWS)			g										1.00000
<i>Evgén(ija)</i> > <i>Žäbgiän</i> (DWS, KA)	ŮV		b										1.00000
<i>Evstá(fij)</i> > <i>Žastä</i> (DWS, KA)	Ů	+	Ø										1.00000
<i>fábrika</i> > <i>fabrika</i> (DW)	-	-	f										0.00000
<i>fámilija</i> > <i>familija</i> (DW)	-	-	f										0.00000
<i>fašíst</i> > <i>fašist</i> (DW)	-	-	f			š							0.00000
<i>fašíst</i> > <i>pasýs</i> (DW, KA)	Ů	+	p			s							0.53001
<i>Fëdor</i> > <i>Pädär</i> (DW, KA)	Ů		p				-						0.36660
<i>Fedós'ja</i> > <i>Pödössä</i> (DWS, KA)	Ů	+	p			ss	-	+					0.62501
<i>Fedós'ja</i> > <i>Pödüösä</i> (DW)	ŮV	+	p			s	-	+					0.35577
<i>Fedós'ja</i> > <i>Pödüössä</i> (DWS, KA)	ŮV	+	p			ss	-	+					0.62501
<i>Fëkla</i> > <i>Päklä</i> (DW, DWS, KA)	Ů		p				-						0.36660

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>Fëkla</i> > <i>Piäklä</i> (DWS, KA)													
ŮV		p					-						0.36660
<i>fél'dšer</i> > <i>pyarsal</i> (DW, KA, SRZ)													
ŮV		p											1.00000
<i>Feodóra</i> > <i>Pödörä</i> (DWS, KA)													
Ů	+	p					-	+					0.48685
<i>Feodó(sija)</i> > <i>Poduo</i> (DWS, KA)													
ŮV	+	p						+					1.00000
<i>fërma</i> > <i>ferma</i> (DW)													
-	-	f											0.00000
<i>fërma</i> > <i>piärmä</i> (DW, KA)													
ŮV	+	p											1.00000
<i>fevrál'</i> > <i>fevräl'</i> (DW)													
-	-	f, v											0.00000
<i>Filípp</i> > <i>Hilip</i> (DW, KA)													
-		h											0.98824
<i>fitil</i> > <i>pital</i> (DW, KA)													
-		p											0.98824
<i>fizkul'túrnyj*</i> > <i>fizkul'turnaj</i> (DW)													
-	-	f											0.00000
<i>flag</i> > <i>flag</i> (DW)													
-		f	CC										0.00000
<i>flažók</i> > <i>flažok</i> (DW)													
-		f	CC		ž		-					ž	0.00000
<i>fonár'</i> > <i>panarantu</i> (DW, KA, SRZ)													
-		p											0.98824
<i>fórtočka</i> > <i>fortočka</i> (DW)													
-		f				-							0.00000
<i>frúkta</i> > <i>frukta</i> (DWS)													
-		f	CC										0.00000
<i>fúnta</i> > <i>púnta</i> ²⁴ (DW, KA, SRZ)													
Ů		p											1.00000
<i>futból</i> > <i>futbol</i> (DW)													
-		f							-				0.00000
<i>gálstuk</i> > <i>galstuk</i> (DW)													
-													0.00000
* <i>gál(s)tus</i> > <i>xáltys</i> ²⁵ (DW, KA, SRZ)													
Ů													1.00000

²⁴ DW: < *funta* (Gen. < *funt*); KA: *fúnta* (Gen. < *funt*); SRZ: mentions Gen. but without naming languages.

²⁵ DW, KA: < *galstuk*; SRZ: possibly not << *gálstuk* but °*gál(s)tus* like Tomsk dial. *gál(s)tus*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>Grigórij</i> > <i>Girguoraj</i> (DW)	ŮV	-		met			-	-					0.18416
<i>Grigó(rij)</i> > <i>Gurgo</i> (DWS, KA)	-	+		met				+					0.98998
<i>Gríška</i> > <i>Giriskä</i> (DWS, KA)	Ů	+		CVC									1.00000
<i>grúša</i> > <i>gruša</i> (DW)	-			CC		š							0.00000
<i>gruzín</i> > <i>gruzin</i> (DW)	-	-		CC		z							0.00000
<i>gruzovój</i> > <i>gruzovoj</i> (DW)	-		v	CC		z							0.00000
<i>gubérnija</i> > <i>gubernija</i> (DW)	-	-											0.00000
<i>guljáj</i> > <i>gülāj.dā</i> ²⁶ (DW, KA, SRZ)	Ů												1.00000
<i>gumági</i> > <i>gumāgy</i> ²⁷ (DWS, SRZ)	Ů	+											1.00000
<i>gumági</i> > <i>kumaky</i> (DW, SRZ)	-	+											0.97136
<i>gumági</i> > <i>kumāky</i> (DW, DWS, SRZ)	Ů	+											1.00000
<i>gumági</i> > <i>kummāgy</i> (SRZ)	Ů	+											1.00000
<i>Igná(tij)</i> > <i>Yñnā</i> (DWS, KA)	Ů	+											1.00000
<i>Igná(tij)</i> > <i>Yññā</i> (DWS, KA)	Ů	+											1.00000
<i>Il'ín</i> > <i>Ilžin</i> (DWS, KA, SRZ)	-												0.00000
<i>Il'já</i> > <i>Ylža</i> (DW, KA)	-	+											0.97136
<i>Innokén(tij)</i> > <i>Inikiän</i> (DWS, KA)	ŮV	+											1.00000
<i>inspéktor</i> > <i>inspektor</i> (DW)	-	-											0.00000
<i>integrál</i> > <i>yntygral</i> (DW, KA)	-	+											0.97136

²⁶ SRZ: also gives *gülāj.dā*; probably a mistake because it only quotes KA where there is no such form. *-lā* in Dolgan always with a long vowel.

²⁷ *Gumāgy* &c.: DW: < *bumagi*; DWS: no etymology; SRZ: < dial.. *gumāga*, perhaps *gumági*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>interés</i> > <i>äntäriäs.än</i> (KA)	ŮV												1.00000
<i>interés</i> > <i>äntiriäs</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>interés</i> > <i>täriäsän</i> (DWS, KA, SRZ)	ŮV					s							0.00939
<i>internát</i> > <i>intärnät</i> (DW)	Ů	-											0.02864
<i>internát</i> > <i>internat</i> (DW)	-	-											0.00000
<i>Irína</i> > <i>Orína</i> (DW, KA)	Ů	-											0.02864
<i>istórija</i> > <i>ustuoruja</i> (DW, DWS, KA)	ŮV	+					-	+					0.27366
<i>Iván</i> > <i>Ujbän</i> (DW, KA)	Ů	+	b										1.00000
<i>Ivánov</i> > <i>ibänap</i> (SRZ)	Ů	-	b, p										0.83288
<i>Ivánov</i> > <i>ujbänov</i> (DWS, KA, SRZ)	Ů	+	b, v										0.58602
<i>Ivanóv</i> > <i>ujbanyap</i> ²⁸ (DW, KA, SRZ)	ŮV	+	b, p				-	-					0.54812
<i>Iváša</i> > <i>Ujbäča</i> (DW, KA)	Ů	+	b			č							0.53001
<i>izviní</i> > <i>izviní</i> (DWS)	Ů		v										0.01176
<i>jábloka*</i> > <i>jabloka</i> (DWS)	-												0.00000
<i>jábloko</i> > <i>jabloko</i> (DW, DWS, KA)	-												0.00000
<i>jábloko</i> > <i>jablok.tar</i> (DWS)	-												0.00000
<i>Jakím</i> > <i>žakim</i> (DWS, KA)	-	-											0.00000
<i>jáma</i> > <i>žama</i> (DW, KA, SRZ)	-												0.00000
<i>jaraplán</i> > <i>žaraplán</i> (DW, KA)	Ů												1.00000
<i>Jaróckij</i> > <i>Žaruoskaj</i> (DW, DWS, KA)	ŮV	+					-	-			s		0.35915

²⁸ DW: no etymology; KA: < *Ivánov*; SRZ: no accentuation.

Russian > Dolgan (sources)

Ū	AE	F	CC	SV	VSV	PL	RL	ŅŅ	X	C	Ž	index
<i>kapkán > kapkân</i> (DW, KA, SRZ)												
Ū												1.00000
<i>karabín > karabin</i> (DWS, SRZ)												
-	-											0.00000
<i>karandáš > karandās</i> (DW, KA, SRZ)												
Ū												1.00000
<i>karandáš > karandaš</i> (DW, KA, SRZ)												
-												0.00000
<i>karmán > karaman</i> (DW, KA, SRZ)												
-												0.00000
<i>karmán > karman</i> (DW, KA, SRZ)												
-												0.00000
<i>karmán > karmân</i> (DW, SRZ)												
Ū												1.00000
<i>kárta > karta</i> (DW, KA)												
-												0.00000
<i>kartína > kartina</i> (DW, KA)												
-	-											0.00000
<i>kártočka > kártyska.lā</i> (DWS, KA)												
Ū												1.00000
<i>kartón > karton</i> (DW, KA)												
-							-					0.00000
<i>kárty > kárty</i> (DW, KA, SRZ)												
Ū												1.00000
<i>karusél' > karusel'</i> (DW)												
-	-				s							0.00000
<i>kassír > kassir</i> (DW)												
-	-											0.00000
<i>kátanka > kātynka</i> (DWS, SRZ)												
Ū								-				0.00647
<i>káter > kater</i> (DW, KA)												
-	-											0.00000
<i>káter > katyr</i> (DW, KA)												
-	+											0.97136
<i>káter > kāt'yr</i> (DW, KA)												
Ū	+											1.00000
<i>káter > kat'yr</i> (DW, KA)												
	+											1.00000
<i>Katerína > Kätirîn</i> (DWS, KA)												
Ū	+											1.00000
<i>katók > katok</i> (DW)												
-							-					0.00000

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>kníga</i> > <i>kinigä</i> (DW, DWS, KA, SRZ)												
-	+		CVC									0.98740
<i>kníga</i> > <i>kinigä</i> (DW, KA, SRZ)												
Ů	+		CVC									1.00000
<i>kníga</i> > <i>kinikä</i> (DWS)												
-	+		CVC									0.98740
<i>kníga</i> > <i>knigä</i> (DW, KA, SRZ)												
-	+		CC									0.42747
<i>knjaz'</i> > <i>kinäs</i> (DW, KA, SRZ)												
Ů			CVC									1.00000
<i>kočegár</i> > <i>xačykār</i> (DW, KA, SRZ)												
Ů	+					č						0.24873
<i>kófta</i> > <i>kuopta</i> (DW, KA, SRZ)												
ŮV		p				-						0.36660
<i>kolíbri</i> > <i>kolibri</i> (DW)												
-	-											0.00000
<i>kollektív</i> > <i>kollektiv</i> (DW)												
-	-	v										0.00000
<i>kolxóz</i> > <i>kolkös</i> (DW, KA)												
Ů									k			1.00000
<i>kolxóz</i> > <i>kolkuos</i> (DW, KA)												
ŮV									k			1.00000
<i>kolxóz</i> > <i>kolxoz</i> (DW, KA)												
-									x			0.00000
<i>kolxóznik</i> > <i>kolkuosník</i> (DW, KA)												
ŮV	-					-			k			0.15979
<i>komár</i> > <i>kumār</i> (DW, DWS, KA, SRZ)												
Ů												1.00000
<i>kommunističeskij</i> > <i>kommunističeskaj</i> (DW)												
-	-					č						0.00000
<i>kómnata</i> > <i>komnata</i> (DW, KA, SRZ)												
-						-						0.00000
<i>kómnata</i> > <i>kumnata</i> (DW, KA, SRZ)												
-						-						0.00000
<i>kómnata</i> > <i>kuomnata</i> (DW, KA, SRZ)												
ŮV						-						0.00676
<i>komsomólec</i> > <i>komsomuolos</i> (DW, KA)												
ŮV	+					+				s		1.00000
<i>komsomól'skij</i> > <i>komsomol'skaj</i> (DW)												
-	+					-						0.18655
<i>koncért</i> > <i>koncert</i> (DW, DWS)												
-	-									c		0.00000

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>konfěta</i> > <i>kanpyat</i> (DW, KA, SRZ)													
ŮV	+	p							-				0.43655
<i>kon'ki</i> > <i>koŃki</i> (DW)													
-	-												0.00000
<i>Konstantín</i> > <i>KostaŃkin</i> (SRZ ²⁹)													
Ů	-												0.02864
<i>konstitúcija</i> > <i>kansytussuja</i> (DW, KA)													
-	+				ss			-		ss			0.56199
<i>kontóra</i> > <i>kontora</i> (DW, SRZ)													
-						-							0.00000
<i>kopějka</i> > <i>kupiäjkä</i> ³⁰ (DW, KA, SRZ)													
ŮV	-												0.02864
<i>korábl'</i> > <i>korabl'</i> (DW)													
-													0.00000
<i>koreški</i> > <i>koroski</i> (DW, KA, SRZ)													
-	-												0.00000
<i>koridór</i> > <i>koridor</i> (DW)													
-	-							-					0.00000
<i>koróbka</i> > <i>koruopka</i> (DW, KA, SRZ)													
ŮV						-							0.00676
<i>koróva</i> > <i>koroba</i> (DW, KA)													
-		b				-							0.36228
<i>koróva</i> > <i>korōba</i> (DW, KA)													
Ů		b				-							0.36660
<i>koróva</i> > <i>korova</i> (DW, KA)													
-		v				-							0.00000
<i>koróva</i> > <i>koruoba</i> (DW, DWS, KA)													
ŮV		b				-							0.36660
<i>koševój</i> > <i>kosoboj</i> (DWS, SRZ)													
-	+	b			s		+						0.56514
<i>koševój</i> > <i>kosobuoj</i> (DWS, SRZ)													
ŮV	+	b			s		+						0.56923
<i>koševój</i> > <i>xosobuoj</i> (DW, KA, SRZ)													
ŮV	+	b			s		+						0.56923
<i>kóška</i> > <i>koška</i> (DW, SRZ)													
-						-							0.00000
<i>kosmíčeskij</i> > <i>kosmičeskaj</i> (DW)													
-	-				č								0.00000

²⁹ S.v. *car'*.³⁰ SRZ: quotes as *kupiärkä* but after DW, so it is probably a typo.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>kosmonávt > kosmonavt (DW)</i>												
-		v										0.00000
<i>kosmonávtika > kosmonavtika (DW)</i>												
-	-	v										0.00000
<i>kósmos > kosmos (DW)</i>												
-												0.00000
<i>Kóstja > Kóčiä (DWS, KA)</i>												
-						-						0.00000
<i>Kóstja > Kóstö (DWS, KA)</i>												
						+						1.00000
<i>kovër > köbüör (DW, DWS, SRZ)</i>												
ŮV		b										1.00000
<i>kóža > kuosa (DW, KA)</i>												
ŮV					s	-					s	0.00282
<i>kráska > kraska.lä (DW, DWS, SRZ)</i>												
-			CC									0.00000
<i>kráska > kyräska.lä (DWS)</i>												
Ů			CVC									1.00000
<i>Krásnaja > Krasnaj (DW)</i>												
-			CC									0.00000
<i>Krásnaja > Kräsnej (DW)</i>												
Ů			CC									0.02201
<i>krásnyj > kyrasnaj (DW)</i>												
-			CVC									0.97799
<i>krásnyj > kyräsnej (DW, KA)</i>												
Ů			CVC									1.00000
<i>Kremlëvskaia > Kremlëvskej (DW)</i>												
-	-	v	CC			-	-					0.00000
<i>Kreščén'e > kresenje (SRZ)</i>												
-			CC		s							0.00000
<i>krest > kiriäs³¹ (DW, DWS, KA, SRZ)</i>												
ŮV			CVC									1.00000
<i>Krest'jánin > Kiristijän (DW, SRZ)</i>												
Ů	+		CVC									1.00000
<i>krokét > kroket (DW)</i>												
-	-		CC									0.00000
<i>krovát' > kyrbat (DW)</i>												
-		b	met									0.99227
<i>krovát' > kyrbät (DW, KA)</i>												
Ů		b	met									1.00000

³¹ DW: only as a place name *Kiriäs* < *Krest(y)*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>krúžka</i> > <i>kruška.lak</i> (DW)	-			CC									0.00000
<i>krúžka</i> > <i>kurúška</i> (DWS, KA, SRZ)	Ů			CVC									1.00000
<i>kudrjá</i> > <i>kūdara.lāk</i> (DWS, KA, SRZ)													n/a
<i>kúkla</i> > <i>kukla</i> (DW, SRZ)	-												0.00000
<i>kukól'</i> > <i>kükül</i> (DWS, SRZ)	Ů												1.00000
<i>kul'</i> > <i>kul</i> (DW, SRZ)	-												0.00000
<i>kul'</i> > <i>kül</i> (DW, SRZ)	Ů												1.00000
<i>kulák</i> > <i>kulāk</i> (DW)	Ů												1.00000
<i>kupéc</i> > <i>kupyas</i> (DW, KA, SRZ)	ŮV	+									s		1.00000
<i>kúrica</i> > <i>kurisa</i> ³² (DW, KA, SRZ)	-	-				s							0.00000
<i>kuropáška</i> > <i>kurpāška</i> (DWS, KA, SRZ)	Ů												1.00000
<i>kuropáška</i> > <i>kurpāšky</i> (DWS, KA, SRZ)	Ů												1.00000
<i>kuropáška</i> > <i>kurupasky</i> (DWS, KA, SRZ)	-												0.00000
<i>kusók</i> > <i>kuhuok</i> (DWS, KA, SRZ)	ŮV					h							1.00000
<i>kuválda</i> > <i>kubálda</i> (DW, KA, SRZ)	Ů		b										1.00000
<i>kvartál</i> > <i>kybārtal</i> (DWS, KA)			b	CVC									1.00000
<i>kvartál</i> > <i>kybartāl</i> (SRZ)	Ů		b	CVC									1.00000
<i>kys</i> > <i>tys</i> (DW, DWS, SRZ)	-												0.00000
<i>láger'</i> > <i>lager'</i> (DW)	-	-											0.00000
<i>lájda</i> > <i>lājda</i> (DWS, KA, SRZ)	Ů												1.00000

³² SRZ: < *kúrica* ~ *kúrisa* in many dialects.

Russian > Dolgan (sources)

	Ū	AE	F	CC	SV	VSV	PL	RL	ŅŅ	X	C	Ž	index
<i>lámpa</i> > <i>lampa</i> (DW, SRZ)	-												0.00000
<i>láška</i> > <i>laska</i> (DW, KA, SRZ)	-												0.00000
<i>latún'</i> > <i>latŷn</i> (DW, KA, SRZ)	Ū												1.00000
<i>latŷn'</i> > <i>latŷn</i> (DW)	-												0.00000
<i>latŷš</i> > <i>latŷš</i> (DW)	-												0.00000
<i>lávas</i> > <i>lābas</i> ³³ (DW, DWS, KA, SRZ)	Ū		<i>b</i>										1.00000
<i>lávki</i> > <i>lapky</i> (DW, SRZ)	-		<i>p</i>										0.98824
<i>lávki</i> > <i>lāpky</i> (DW, KA, SRZ)	Ū		<i>p</i>										1.00000
<i>lėja</i> > <i>āliājka</i> (DWS, KA, SRZ)	ŪV	+											1.00000
<i>lėkcija</i> > <i>lekcija</i> (DW)	-	-									<i>c</i>		0.00000
<i>lėmning</i> > <i>leming</i> (DW)	-												0.00000
<i>lėnta</i> > <i>lenta</i> (DW)	-	-											0.00000
<i>lepėška</i> > <i>lāpāškā</i> (DW, DWS, KA, SRZ)	Ū	+					-	-					0.17265
<i>lepėška</i> > <i>lāpiāškā</i> (DWS)	ŪV	+					-	-					0.17265
<i>lėska</i> > <i>lāska</i> (DW, KA)	-	-											0.00000
<i>lesnėk</i> > <i>lesnik</i> (DW)	-												0.00000
<i>lėtėik</i> > <i>lėtėik</i> (DW)	-	-					-		-				0.00000
<i>Levontij*</i> > <i>Lėgŷontāj</i> (DWS)	ŪV	+	<i>g</i>				-	+					0.48685
<i>lėnija</i> > <i>linija</i> (DW)	-	-											0.00000
<i>listok</i> > <i>listok</i> (DW)	-	-						-					0.00000

³³ DW: < *labaz*; DWS: no etymology; KA: < dial. *lābaz* = lit. and dial. *labáz*; SRZ: < *lāvas*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>Máša</i> > <i>Māču</i> (DWS, KA)	Ů					č							0.00939
<i>Máša</i> > <i>Māssa</i> (DW, DWS, KA)	Ů					ss							1.00000
<i>mašina</i> > <i>mašina</i> (DW, KA)	-	-				š							0.00000
<i>mašina</i> > <i>masyna</i> (DW, KA)	Ů	+				s							0.24873
<i>máška</i> > <i>maska</i> (DW)	-												0.00000
<i>máslo</i> > <i>māsla</i> (DW, DWS, KA)	Ů												1.00000
<i>máslo</i> > <i>masla.lāk</i> (DWS)	-												0.00000
<i>masterskój</i> > <i>masterskoj</i> (DW)	-	-						-					0.00000
<i>matnjá</i> > <i>matña</i> (DWS, KA, SRZ)	-												0.00000
<i>mātuška</i> > <i>mātyska</i> (DW, DWS, KA, SRZ)	Ů												1.00000
<i>Matvéj</i> > <i>Mäkkäj</i> (DWS, KA)	-	+	p						+				0.99633
<i>Matvéj</i> > <i>Matpyaj</i> (DW, KA)	ŮV	+	p						-				0.43655
<i>mavzolėj</i> > <i>mavzolej</i> (DW)	-	-	v										0.00000
<i>maz'</i> > <i>mās</i> (DW, KA, SRZ)	Ů												1.00000
<i>mäd</i> > <i>müöt</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>mel</i> > <i>mel</i> (DW)	-												0.00000
<i>mel</i> > <i>miäl</i> (DW, KA)	ŮV												1.00000
<i>merěža</i> > <i>möröhö</i> (DW, KA, SRZ)	Ů	+				h	+	+				h	1.00000
<i>mešóček</i> > <i>möhöččük</i> (DWS, KA)	Ů	+				h, čč	+	+					1.00000
<i>mešóček</i> > <i>mösöččük</i> (DW, DWS, KA, SRZ)	Ů	+				s, čč	+	+					0.74474
<i>mešóček</i> > <i>mösöčük</i> (DW, DWS, KA, SRZ)	Ů	+				s, č	+	+					0.48948

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>nagrada</i> > <i>nagrada.lan</i> (DWS)	-												0.00000
<i>naizúst'</i> > <i>naizust'</i> (DW, DWS)	-	-				z							0.00000
(<i>na</i>) <i>komárnik</i> > <i>kumäryńyk</i> (DW, DWS, KA, SRZ)	Ů	+											1.00000
<i>nalíčnik</i> > <i>nalíčnik</i> (DWS, KA)	Ů	-											0.02864
<i>napravljáj</i> > <i>napravljaj.dā</i> (DW)	-		v										0.00000
<i>narod</i> > <i>narod</i> (DW, KA)	-							-					0.00000
<i>narod</i> > <i>noruot</i> (DW, KA, SRZ)	ŮV							+					1.00000
<i>narodnyj</i> > <i>narodnaj</i> (DW, SRZ)	-						-	-					0.00000
<i>naslég</i> > <i>nähiliäk</i> (DWS, KA, SRZ)	ŮV	+				h							1.00000
<i>Nástja</i> > <i>Nastäj</i> (DW, KA)													n/a
<i>natrūska</i> > <i>natrūska</i> (DW, KA, SRZ)	Ů												1.00000
<i>nedélja</i> > <i>nädälä</i> (DW, KA)	-	+											0.97136
<i>nedélja</i> > <i>nädälä</i> (DW, KA)	Ů	+											1.00000
<i>neft'</i> > <i>neft'</i> (DW)	-		f										0.00000
<i>nél'ma</i> > <i>nälmä</i> (DW, KA, SRZ)	Ů	+											1.00000
<i>né nec</i> > <i>nenec</i> (DW)	-										c		0.00000
<i>né rpa</i> > <i>niärpä</i> (DWS, SRZ)	ŮV	+											1.00000
<i>nganasán</i> > <i>Nganasan</i> (DW, DWS)	-			CC		s							0.00000
<i>Nikoláj</i> > <i>Ńukulaj</i> (DWS, KA)	-	+											0.97136
<i>Niko(láj)</i> > <i>Ńukū</i> (DW)		+											1.00000
<i>Nikólin</i> > <i>Mikuolin</i> (SRZ)	ŮV	-					-	-					0.00494

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>Oksín'ja</i> > <i>Oksiännä</i> (DWS)	ŮV	-											0.02864
<i>oktjábr</i> > <i>öktöp</i> (DWS, KA)	Ů												1.00000
<i>oktjábr'</i> > <i>oktjabr'</i> (DW)	-												0.00000
<i>oktjabrënok</i> > <i>oktjabrënok</i> (DW)	-						-	-					0.00000
<i>oktjabrjáta</i> > <i>oktjabrjata.lar</i> (DW, KA)	-												0.00000
<i>Oktjábr'skaja</i> > <i>Oktjabr'skaj</i> (DW)	-												0.00000
<i>olád'ja</i> > <i>alāžy</i> (DWS, SRZ)	Ů												1.00000
<i>olád'ja</i> > <i>alāžža</i> (DW, DWS, SRZ)	Ů												1.00000
<i>Olëna</i> > <i>Ölönö</i> (DWS)	Ů						+						1.00000
<i>Olëna</i> > <i>Ölüönä</i> ³⁴ (DW, DWS)	ŮV						-						0.00676
<i>ómul'</i> > <i>uomul</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>onúčka</i> > <i>aňýska</i> (DW, SRZ)	Ů												1.00000
<i>Onúfrij</i> > <i>Onüpraj</i> (DW, KA)	Ů	+	<i>p</i>										1.00000
<i>órden</i> > <i>orden</i> ³⁵ (DW, DWS)	-	-					-						0.00000
<i>órdenskaja</i> > <i>ordenskaj</i> (DW)	-	-					-						0.00000
<i>orël</i> > <i>örüöl</i> (DWS, KA, SRZ)	ŮV	+											1.00000
<i>orúdie</i> > <i>orudie</i> (DW)	-	-											0.00000
<i>osëlka</i> > <i>oholko</i> ³⁶ (DW, KA, SRZ)	-	+				<i>h</i>	+						0.99652

³⁴ *Ölüönä, Ölönö*: DW: (*Ölüönä* only) < *Elena*; DWS: < lit. *Elena* or dial. *Olëna*.

³⁵ DW: as *orden.näk* only.

³⁶ DW: < *oselok*; KA: < *oselók* or ? Gen. *oselká*; SRZ: < *osëlka* = Novosibirsk, Novgorod and Perm dial. *osëlka*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>osína</i> > <i>osina</i> (DW)	-	-				s							0.00000
<i>ótčestvo</i> > <i>otčestva</i> (DW, KA)	-	-	v				-						0.00000
<i>otvét</i> > <i>äppiät</i> ³⁷ (DW, DWS, KA, SRZ)	ŮV	+	p						+				1.00000
<i>ovčárka</i> > <i>ovčarka</i> (DW)	-		v										0.00000
<i>Ovdó(t'ja)*</i> > <i>Ogdo</i> ³⁸ (DW)	-		g										0.98824
<i>Ovdó(t'ja)*</i> > <i>Ogdō</i> (DW, KA)	Ů		g										1.00000
<i>Ovdó(t'ja)*</i> > <i>Ogduj</i> (DW, KA)	-		g										0.98824
<i>Ovdó(t'ja)*</i> > <i>Ogduo</i> (DW, DWS, KA)	ŮV		g										1.00000
<i>Ovdót'ja</i> > <i>Okkyta</i> ³⁹ (DWS)	-		g				-						0.36228
<i>óvošči</i> > <i>ovošči</i> (DW, DWS)	-	-	v			šč	-						0.00000
<i>pajáj</i> > <i>pajāj.dā</i> (SRZ)	Ů												1.00000
<i>palátka</i> > <i>palātka</i> (DWS, KA, SRZ)	Ů								-				0.00647
<i>pálki*</i> > <i>palky</i> ⁴⁰ (DW, KA, SRZ)	-												0.00000
<i>páločka</i> > <i>paločka</i> (DW)	-												0.00000
<i>pal'tó</i> > <i>paltū</i> (DW, KA, SRZ)	Ů							-					0.04667
<i>pámjat'</i> > <i>pāmit</i> ⁴¹ (DW, SRZ)	Ů	x											0.02864
<i>pámjat'</i> > <i>pāmīt</i> (DW, SRZ)		x											0.00000

³⁷ DW: as *äppiät.tā* only.³⁸ *Ogdo* &c.: DW: < *Evdokija*; DWS: no etymology; KA: < *Avdo(kéja)*. In my opinion, *Ovdó(t'ja)* seems to be the most probable etymon.³⁹ Russ. *Ovdótja* > Dolg. **Ovo-* > **Ogo-*, and this = *Okko-* because voiced intervocalic stops are in Dolgan interchangeable with their doubled voiceless counterparts.⁴⁰ SRZ: not < *pálki*, but Dolg. °*bálka* < *pálka*.⁴¹ DW: no etymology; SRZ: < °*pámjat'* = Vyatka dial. *pámjat'*.

Russian > Dolgan (sources)

	Ŧ	AE	F	CC	SV	VSV	PL	RL	ŦŦ	X	C	Ź	index
<i>pámjatnik</i> > <i>pamjatnik</i> (DW)	-	-											0.00000
<i>pára</i> > <i>para.lŷ</i> (DW, SRZ)	-												0.00000
<i>park</i> > <i>park</i> (DW, KA)	-												0.00000
<i>párki*</i> > <i>párki.lák</i> ⁴² (DW, DWS, KA)	Ŧ	-											0.02864
<i>paroxód</i> > <i>parakot</i> (DW, DWS, KA, SRZ)	-							-		<i>k</i>			0.60908
<i>paroxód</i> > <i>poroxuot</i> (DWS, KA, SRZ)	ŦŦ							+		<i>x</i>			0.39092
<i>paroxód</i> > <i>porukuot</i> (DWS, KA, SRZ)	ŦŦ							+		<i>k</i>			1.00000
<i>párta</i> > <i>parta</i> (DW, KA)	-												0.00000
<i>pártija</i> > <i>partija</i> (DW, DWS)	-	-											0.00000
<i>pártija</i> > <i>pártija.lák</i> (DWS)	Ŧ	-											0.02864
<i>partŷjnŷj</i> > <i>partŷjnaj</i> (DW, DWS)	Ŧ	+											1.00000
<i>partizán</i> > <i>partizan</i> (DW)	-	-				<i>z</i>							0.00000
<i>pas'</i> > <i>pás</i> (DW)	Ŧ												1.00000
<i>Páša</i> > <i>Pása</i> (DW, KA)	Ŧ					<i>s</i>							0.00939
<i>pášennyj</i> > <i>pásnaj</i> (DW, DWS, KA, SRZ)	Ŧ	+											1.00000
<i>pášennyj</i> > <i>pásynaj</i> (DW, KA, SRZ)	Ŧ	+				<i>s</i>							0.24873
<i>Páška</i> > <i>Paska</i> (DW)	Ŧ												1.00000
<i>passaŷŷirskij</i> > <i>passaŷŷirskaj</i> (DW)	-	-				<i>Ź</i>						<i>Ź</i>	0.00000
<i>pastúx</i> > <i>pastux</i> (DW, DWS, SRZ)	-									<i>x</i>			0.00000
<i>pastúx</i> > <i>postúk</i> (DWS, SRZ)	Ŧ									<i>k</i>			1.00000

⁴² DW: without commentary; DWS, KA: < *párka*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>Pásxa</i> > <i>Pāska</i> (DW, KA, SRZ)	Ů									k			1.00000
<i>pasxál'</i> > <i>paskāl</i> (DW, KA, SRZ)	Ů									k			1.00000
<i>patrón</i> > <i>patruon</i> (DW, KA)	ŮV							-					0.04667
<i>Pável</i> > <i>Pābil</i> (DWS, KA)	Ů	-	b										0.71482
<i>Pável</i> > <i>Pābyl</i> (DW, DWS, KA)	Ů	+	b										1.00000
<i>Pávlik</i> > <i>Bakȳ</i> (DW, DWS)		+	∅										1.00000
<i>pečát'</i> > <i>páčāt.tāk</i> (DWS, KA, SRZ)	Ů	-				č							0.00712
<i>Pelagėja</i> > <i>Palagyaj</i> (DW, KA)	ŮV	+											1.00000
<i>peljádka</i> > <i>pälätkä</i> (DWS, KA, SRZ)	-	+							-				0.18001
<i>pénsija</i> > <i>pensija</i> (DW)	-	-							-				0.00000
<i>pereména</i> > <i>pärimänä</i> (DW, KA)	-	+											0.97136
<i>pereména</i> > <i>peremena</i> (DW, KA)	-	-											0.00000
<i>perevód</i> > <i>perevod.tā</i> (DW)	-	-	v					-					0.00000
<i>perína</i> > <i>pärinä</i> (DW, SRZ)	Ů	+											1.00000
<i>p'ésa</i> > <i>p'esa</i> (DW)	-	-				s							0.00000
<i>pétel'ka</i> > <i>pädälkä</i> (DW, DWS, KA)	-	+											0.97136
<i>pétel'ka</i> > <i>piätilkä</i> ⁴³ (DWS, KA)	ŮV	+											1.00000
<i>Pét'ka</i> > <i>Päkka</i> (DWS, KA)	-	-							+				0.81469
<i>Pét'ka</i> > <i>Piäčikkä</i> (DWS, KA)	ŮV	+											1.00000
<i>Pét'ka</i> > <i>Pöččö</i> (DWS, KA)	-	+							-				0.18001

⁴³ DW: < *petel'ka*; DWS: no etymology; KA: < *pétel'ka*; SRZ: < *°pétel'ka* or *°petél'ka*.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>plóščad' > ploščad' (DW)</i>												
-			CC		šč	-						0.00000
<i>pobéda > pobeda (DW)</i>												
-	-											0.00000
<i>póčta > počta (DW)</i>												
-						-						0.00000
<i>podkuláčnik > podkulasník (DW, KA)</i>												
-	-							-				0.00000
<i>podležáščee > podležaščij (DW)</i>												
-	-				ž, šč						ž	0.00000
<i>podvódčik > bolbuotčuk (DWS, KA, SRZ)</i>												
ŮV	+	b				+		-				0.63393
<i>poët > poët (DW)</i>												
-	-											0.00000
<i>poëtéssa > poëtessa (DW)</i>												
-	-											0.00000
<i>póezd > poezd (DW, KA)</i>												
-	-					-						0.00000
<i>pograničnik > pograničnik (DW)</i>												
-	-											0.00000
<i>Pokróv > Pokruop (DW, KA, SRZ)</i>												
ŮV		p										1.00000
<i>polk > polk (DW)</i>												
-												0.00000
<i>poméščik > pomeščik (DW)</i>												
-	-				šč							0.00000
<i>pop > puop (DW, SRZ)</i>												
ŮV												1.00000
<i>popiráj > popiraj.dā (DW)</i>												
-	-											0.00000
<i>poplavók > polobuok (DWS, KA, SRZ)</i>												
ŮV		b					+					1.00000
<i>poplavók > polubuok (DWS, KA, SRZ)</i>												
ŮV		b					+					1.00000
<i>poplavók > poplobok (DWS, KA, SRZ)</i>												
-		b					+					0.99052
<i>pórox > huorax (DW, KA, SRZ)</i>												
ŮV						-			x			0.00552
<i>pórox > puorax (DW, KA, SRZ)</i>												
ŮV						-			x			0.00552
<i>pórsa > puorsa (DW, DWS, KA, SRZ)</i>												
ŮV						-						0.00676

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>port*</i> > <i>port</i> (DWS)	-												0.00000
<i>portrét</i> > <i>portret</i> (DW)	-	-											0.00000
<i>posëlok</i> > * <i>pašolak</i> ⁴⁴ (DW)	-					ś							0.00000
<i>posëlok</i> > <i>posëlok</i> (DW)	-					s							0.00000
<i>poslòvica</i> > <i>poslovica</i> (DW)	-	-	v			c	-				c		0.00000
<i>post</i> > <i>post</i> (DW, KA)	-												0.00000
<i>Potít</i> > <i>Bakyt</i> (DW, DWS, KA)	-	+											0.97136
<i>potolók</i> > <i>potoluok</i> (DWS, KA, SRZ)	ŮV												1.00000
<i>póvar</i> > <i>povar</i> (DW, SRZ)	-		v				-						0.00000
<i>povarénka</i> > <i>päbäränki</i> (DW, KA, SRZ)	-		b				-	-	-				0.20702
<i>povarëška</i> > <i>pabareska</i> (DWS, KA)	-	-	b										0.70642
<i>povodók</i> > <i>poboduok</i> (DWS, KA, SRZ)	ŮV		b										1.00000
<i>povodók</i> > <i>pobotuok</i> (DWS, KA, SRZ)	ŮV		b										1.00000
<i>povodók</i> > <i>pobuduok</i> (DW, DWS, KA, SRZ)	ŮV		b										1.00000
<i>povózka</i> > <i>pobuoska</i> (DWS, KA, SRZ)	ŮV		b				-						0.36660
<i>požálujsta</i> > <i>pusälusta</i> (DW, KA, SRZ)	Ů					s						s	0.00481
<i>pozdravlénie</i> > <i>pozdravlenie</i> (DW)	-	-	v										0.00000
<i>pozdravljáj</i> > <i>pozdravljaj.dä</i> (DW)	-		v										0.00000
<i>právila</i> > <i>pravila</i> (DW)	-	-	v	CC									0.00000
<i>pravlénie</i> > <i>prablännä</i> (DW, KA)	-	-	b	CC									0.51430

⁴⁴ DW: Dat. *pašollaka* very probably a mistake in place of **pašolakka*.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>prosti</i> > <i>prost'y.lā</i> (DW)												
-	+		CC									0.42747
<i>prosti</i> > <i>pyrasty.las</i> (DW, KA, SRZ)												
Ů	+		CVC									1.00000
<i>pud</i> > <i>pūt</i> (DW, SRZ)												
Ů												1.00000
<i>púl'ki</i> > <i>pülki</i> ⁴⁵ (DW, KA, SRZ)												
-	+											0.97136
<i>púl'ki</i> > <i>pülkü</i> (DW, KA, SRZ)												
-	+											0.97136
<i>purgá</i> > <i>purga</i> (DW, SRZ)												
-												0.00000
<i>purgá</i> > <i>purgā</i> (DW, DWS, SRZ)												
Ů												1.00000
<i>púška</i> > <i>puška</i> (DW, SRZ)												
-												0.00000
<i>pyl'</i> > <i>pul'</i> (DWS, KA, SRZ)												
-												0.00000
<i>pyl'</i> > <i>tyl</i> (DWS, SRZ)												
Ů												1.00000
<i>rabóčij</i> > <i>rabočaj</i> (DW)												
-	+				č	-	-					0.11023
<i>rádio</i> > <i>radio</i> (DW)												
-	-											0.00000
<i>radíst</i> > <i>radist</i> (DW, KA)												
-	-											0.00000
<i>rajón</i> > <i>rajon</i> (DW)												
-							-					0.00000
<i>rakéta</i> > <i>raketa</i> (DW)												
-	-											0.00000
<i>rakétčik</i> > <i>raketčik</i> (DW)												
-	-							-				0.00000
<i>raketodróm</i> > <i>raketodrom</i> (DW)												
-	-						-					0.00000
<i>ráma</i> > <i>arāma</i> (DWS, KA, SRZ)												
Ů												1.00000
<i>reaktívnyj</i> > <i>reaktivnaj</i> (DW)												
-	-	v										0.00000

⁴⁵ *Pülki, pülkü*: DW: < *pul'ka*; KA: < *púl'ki* (Pl. < *púl'ka*); SRZ: does not mention Pl.; just *púl'ka*.

Russian > Dolgan (sources)

	Ū	AE	F	CC	SV	VSV	PL	RL	ŅŅ	X	C	Ž	index
<i>remónt</i> > <i>remon</i> (DW, KA)	-	-						-					0.00000
<i>rešáj</i> > <i>rešaj.dā</i> (DW)	-	-				š							0.00000
<i>respúblika</i> > <i>republika</i> (DW)	-	-											0.00000
<i>revoljúcija</i> > <i>revoljucija</i> (DW)	-	-	v			c					c		0.00000
<i>režím</i> > <i>režim</i> (DW)	-					ž						ž	0.00000
<i>rjabína</i> > <i>rjabina</i> (DW)	-	-											0.00000
<i>rjúmka</i> > <i>ürũmkã</i> ⁴⁶ (DW)	Ū												1.00000
<i>rojál'</i> > <i>rojal'</i> (DW)	-												0.00000
<i>Román</i> > <i>Yramān</i> (DW, KA)	Ū												1.00000
<i>Rossíja</i> > <i>Rossija</i> (DW)	-	-											0.00000
<i>rost</i> > <i>oruos</i> (DW, DWS, KA)	ŪV												1.00000
<i>Roždestvó</i> > <i>rosostuo</i> (SRZ)	ŪV	+	∅			s		+				s	0.40242
<i>rubáxa</i> > <i>urbāky</i> (DW, DWS, KA, SRZ)	Ū									k			1.00000
<i>rubáxa</i> > <i>urubaky</i> (DW, KA, SRZ)	-									k			0.97092
<i>rubáxa</i> > <i>yrbāky</i> (DW, DWS, KA, SRZ)	Ū									k			1.00000
<i>rubáxa</i> > <i>yrbāxy</i> (DW, KA, SRZ)	Ū									x			0.02908
<i>rúčka</i> > <i>ručka</i> (DW, KA)	-												0.00000
<i>rúčka</i> > <i>ruška</i> (DW, KA)	-												0.00000
<i>rúčka</i> > <i>urũska</i> (DW, KA)	Ū												1.00000
<i>ruká</i> > <i>uruka</i> (DW, SRZ)	-												0.00000

⁴⁶ KA: *ürũmkã* only; probably a typo.

Russian > Dolgan (sources)

Ť	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>ruká > urūka</i> (DW, DWS, KA, SRZ)												
												n/a
<i>ruká > urukā</i> (DW, SRZ)												
Ť												1.00000
<i>rys' > rýs'</i> (DW, SRZ)												
-												0.00000
<i>sad > sad</i> (DW)												
-				s								0.00000
<i>sádik > sadik</i> (DW)												
-	-			s								0.00000
<i>saf'ján > hapján</i> (DW, DWS, KA, SRZ)												
Ť		p		h								1.00000
<i>saf'ján > happyján</i> (DW, KA, SRZ)												
Ť		p		h								1.00000
<i>saf'ján > happyjan</i> (DW, KA, SRZ)												
-		p		h								0.99033
<i>saf'ján > happyján</i> (DW, KA, SRZ)												
Ť		p		h								1.00000
<i>saf'ján > sapjan</i> (DW, KA, SRZ)												
-		p		s								0.81283
<i>šajtán > hajtan</i> (DW, DWS, SRZ)												
-				h								0.94831
<i>šajtán > hajtān</i> (DW, KA, SRZ)												
Ť				h								1.00000
<i>šajtán > sajtan</i> (DWS)												
-				s								0.00000
<i>šal' > hāl</i> (DW, DWS, KA, SRZ)												
Ť				h								1.00000
<i>saljút > saljut</i> (DW)												
-				s								0.00000
<i>sál'naja > hālynaj</i> (DW, KA, SRZ)												
Ť				h								1.00000
<i>samolēt > samolēt</i> (DW)												
-				s			-					0.00000
<i>samovár > hamubar</i> (DW, SRZ)												
-		b		h								0.99033
<i>samovár > hamubār</i> (DW, KA, SRZ)												
Ť		b		h								1.00000
<i>sánki > hāŋky</i> (DW, KA, SRZ)												
Ť	+			h				-				0.25760
<i>santéxník > santexnik</i> (DW)												
-	-			s					x			0.00000

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>šápka</i> > <i>Hāpka</i> (DW, KA, SRZ)	Ů				<i>h</i>								1.00000
<i>šápka</i> > <i>hapky</i> (DW, SRZ)	-				<i>h</i>								0.94831
<i>šápka</i> > <i>hāpky</i> (DW, KA, SRZ)	Ů				<i>h</i>								1.00000
<i>sapogí</i> > <i>hapagy</i> (DW, DWS, KA, SRZ)	-	+			<i>h</i>								0.98123
<i>sapogí</i> > <i>hapakī</i> (DWS, KA, SRZ)	Ů	-			<i>h</i>								0.36322
<i>sapogí</i> > <i>hapoki</i> (DWS, SRZ)	-	-			<i>h</i>								0.34444
<i>šar</i> > <i>šar</i> (DW)	-				<i>š</i>								0.00000
<i>saráj</i> > <i>haraj</i> (DW, DWS, KA, SRZ)	-				<i>h</i>								0.94831
<i>šarf</i> > <i>hārt</i> (DWS, SRZ)	Ů		<i>t</i>		<i>h</i>								1.00000
<i>satín</i> > <i>hatŷn</i> (DW, DWS, KA, SRZ)	Ů	+			<i>h</i>								1.00000
<i>sáxar</i> > <i>hahar.dāk</i> (DWS, SRZ)	-				<i>h</i>					<i>h</i>			0.98104
<i>sáxar</i> > <i>hākar</i> (DWS, SRZ)	Ů				<i>h</i>					<i>k</i>			1.00000
<i>sáxar</i> > <i>hākyr</i> (DW, DWS, KA, SRZ)	Ů				<i>h</i>					<i>k</i>			1.00000
<i>sbor</i> > <i>sbor</i> (DW)	-			CC									0.00000
<i>scéna</i> > <i>scena</i> (DW)	-	-		CC							<i>c</i>		0.00000
<i>šči</i> > <i>šči</i> (DW)	-			CC									0.00000
<i>séjanka</i> > <i>hiāŃki</i> ⁴⁷ (DW, SRZ)	ŮV	+			<i>h</i>				-				0.25760
<i>sel' déj</i> > <i>hāldāj</i> (DW, DWS, KA, SRZ)	-				<i>h</i>								0.94831
<i>šelkú</i> > <i>holko</i> (DW, KA, SRZ)	-	+			<i>h</i>								0.98123

⁴⁷ DW: no etymology; SRZ: < *séjanka*. In my opinion the PL form is more probable, but it is not important here.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>sovxóz</i> > <i>sovxoz</i> (DW)	-		v		s					x			0.00000
<i>spasíbo</i> > <i>bahýba</i> (DWS, KA, SRZ)	Ů	+		C ₂	Ø	h							1.00000
<i>spasíbo</i> > <i>pasíba</i> (DW, DWS, KA, SRZ)	Ů	-		C ₂	Ø	s							0.31391
<i>spasíbo</i> > <i>pasýba</i> (DW, KA, SRZ)	Ů	+		C ₂	Ø	s							0.48086
<i>Spásovy</i> > <i>yspásap.tar</i> ⁴⁸ (SRZ)	Ů		p	VCC		s							0.55104
<i>spíčka</i> > <i>ispinskä</i> (DW, KA, SRZ)	-	+		VCC									0.98740
<i>spíčka</i> > <i>ispiskä</i> (DW, DWS, KA, SRZ)	-	+		VCC									0.98740
<i>spíčka</i> > <i>spiskä</i> (DWS, KA)	-	+		CC									0.42747
<i>Spiri(dón)</i> > <i>Spiri</i> (DWS, KA)	-			CC									0.00000
<i>Spiridónov</i> > <i>Ispirtuonap</i> (SRZ)	ŮV	-	p	VCC			-	-					0.39145
<i>spirt</i> > <i>ispirt</i> (DW, KA, SRZ)	-			VCC									0.97799
<i>sport</i> > <i>sport</i> (DW)	-			CC									0.00000
<i>spusk</i> > <i>uspūs</i> (DW, KA, SRZ)	Ů			VCC									1.00000
<i>Sréten'e</i> > <i>sirietenije</i> (SRZ)	ŮV			CVC	s								0.71232
<i>ssýlka</i> > <i>ssylka</i> (DW)	-			CC	s								0.00000
<i>stadión</i> > <i>stadion</i> (DW)	-	-		CC				-					0.00000
<i>stakán</i> > <i>ystakān</i> (DW, KA, SRZ)	Ů			VCC									1.00000
<i>stáncija</i> > <i>stancija</i> (DW)	-	-		CC							c		0.00000
<i>šťaný</i> > <i>ystān</i> (DWS, KA)				VCC									1.00000
<i>stekló</i> > <i>čoklo</i> (DW, DWS, KA, SRZ)	-	+		C ₂	Ø			+					0.99153

⁴⁸ SRZ: erroneously *yspāp.tar* instead of *yspāsap.tar*.

Russian > Dolgan (sources)

	Ŧ	AE	F	CC	SV	VSV	PL	RL	ŦŦ	X	C	Ž	index
<i>struž</i> > <i>usturūs</i> ⁴⁹ (DWS, KA, SRZ)	Ŧ			VCC									1.00000
<i>stul</i> > <i>ustül</i> (DW, KA, SRZ)	Ŧ			VCC									1.00000
<i>subbóta</i> > <i>subbota</i> (DW)	-				s		-						0.00000
<i>suetá</i> > <i>hujatā</i> (DWS)	Ŧ	+			h								1.00000
<i>suetá</i> > <i>hujätā</i> (DWS)	Ŧ	-			h								0.36322
<i>suetá</i> > <i>hujutā</i> (DWS)	Ŧ	+			h								1.00000
<i>šugá</i> > <i>hugā</i> (DWS, KA, SRZ)	Ŧ				h								1.00000
<i>Šúkin</i> > <i>Súkin</i> (DW, KA)	Ŧ	-			s								0.01877
<i>súkna</i> > <i>hūkna</i> ⁵⁰ (DW, KA, SRZ)	Ŧ				h								1.00000
<i>súmka</i> > <i>hümka</i> (DWS, KA, SRZ)	Ŧ				h								1.00000
<i>sundúk</i> > <i>hunduk</i> (DW, KA, SRZ)	-				h								0.94831
<i>sundúk</i> > <i>hundük</i> (DW, KA, SRZ)	Ŧ				h								1.00000
<i>sundúk</i> > <i>sunduk</i> (DW, KA, SRZ)	-				s								0.00000
<i>sundúk</i> > <i>sundük</i> (SRZ)	Ŧ				s								0.05169
<i>súška</i> > <i>hūska</i> (DW, KA)	Ŧ				h								1.00000
<i>Súslov</i> > <i>Suslap</i> (DW, KA)	-		p		s								0.81283
<i>sútki</i> > <i>hutka</i> (DW, KA, SRZ)	-	+			h				-				0.25276
<i>sútki</i> > <i>hutkan</i> (DW, KA, SRZ)	-	+			h				-				0.25276
<i>sútki</i> > <i>sutkan</i> (DW, SRZ)	-	+			s				-				0.16403

⁴⁹ DWS: probably < *usturük* with a suffix substitution; KA: < 17/18th c. Siberian dial. *struž* / modern dial. *struž*; SRZ: < *struž*.

⁵⁰ SRZ: < *suknó*.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>suvój > hubuoj</i> ⁵¹ (SRZ)												
ŮV		b		h								1.00000
<i>suxár' > hukār</i> (DW, KA, SRZ)												
Ů				h					k			1.00000
<i>súženyj > sūhunaj</i> (DW, KA, SRZ)												
Ů	+			s	h						h	0.92950
<i>súženyj > susunaj</i> (DW, KA, SRZ)												
-	+			s	s						s	0.13034
<i>svat > hybāt</i> (DWS, KA, SRZ)												
Ů		b	CVC	h								1.00000
<i>svečā > hibiča</i> (DWS)												
-	-	b	CVC	h	č							0.51116
<i>svěči > hābiči</i> (DW, KA, SRZ)												
-		b	CVC	h	č							0.57961
<i>svěči > hābit'i</i> (DW, KA, SRZ)												
-		b	CVC	h	t'							0.57961
<i>svěči > sibāči</i> ⁵² (DW, DWS, KA, SRZ)												
-		b	CVC	s	č							0.50717
<i>sverló > sibārlä</i> (DWS, KA, SRZ)												
ŮV	+	b	CVC	s			-					0.80818
<i>svěžij > hibiäsāj</i> (DW, KA, SRZ)												
ŮV		b	CVC	h	s						s	0.41661
<i>svin'já > hibiñnä</i> (DW, DWS, KA, SRZ)												
-	+	b	CVC	h								0.99450
<i>svin'já > hibiñnä</i> (DWS)												
Ů	+	b	CVC	h								1.00000
<i>svin'já > sibinija</i> (DW, KA, SRZ)												
-	-	b	CVC	s								0.70687
<i>svin'já > sibiñnä</i> (DW, KA, SRZ)												
-	+	b	CVC	s								0.89353
<i>svin'já > sviñja</i> (DW)												
-	-	v	CC									0.00000
<i>svíter > hibiťir</i> (DWS, KA)												
		b	CVC	h								1.00000
<i>sxéma > sxema</i> (DW)												
-	-		CC						x			0.00000

⁵¹ SRZ: *suvój* ~ *subój*.⁵² DW: < *sveča*; DWS: no etymology; KA, SRZ: *hābiči*, *hābit'i*, *sibāči* < *svěči*; cf. *hibiča*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>sýromjatka</i> > <i>härämât</i> ⁵³ (DWS, KA, SRZ)					<i>h</i>								1.00000
<i>tabák</i> > <i>tabak</i> (DWS, SRZ)													0.00000
<i>tabák</i> > <i>tabāk</i> (DWS, SRZ)													1.00000
<i>tablīca</i> > <i>tablica</i> (DW)						<i>c</i>					<i>c</i>		0.00000
<i>tadžík</i> > <i>tadžik</i> (DW)									-			<i>ž</i>	0.00000
<i>tagán</i> > <i>tagān</i> (DWS, KA, SRZ)													1.00000
<i>tak</i> > <i>tāk</i> (DWS, KA, SRZ)													1.00000
<i>tápočka</i> > <i>tapyska</i> (DWS, KA)													0.00000
<i>Tat'ján(a)</i> > <i>Tat'jan</i> (DWS, KA)													0.00000
<i>tázik</i> > <i>tāhyk</i> (DWS)		+				<i>h</i>							1.00000
<i>tázik</i> > <i>tasyk</i> (DW, DWS, KA, SRZ)		+				<i>s</i>							0.24160
<i>tázik</i> > <i>tāsyk</i> (DW, KA, SRZ)		+				<i>ś</i>							0.24873
<i>tekst</i> > <i>tekst</i> (DW)													0.00000
<i>telefón</i> > <i>telefon</i> (DW)			<i>f</i>					-					0.00000
<i>televízor*</i> > <i>televizor</i> (DWS)			<i>v</i>			<i>z</i>							0.00000
<i>terélka</i> > <i>täliärkä</i> (DW, KA)	ŮV	+											1.00000
<i>terélka</i> > <i>tärälkä</i> (DWS, KA)		+											0.97136
<i>terélka</i> > <i>täriälkä</i> (DWS, KA)	ŮV	+											1.00000
<i>tetrád'</i> > <i>tetrad'</i> (DW)													0.00000

⁵³ DWS: < *syromjat'*; KA: < ? *sýromjat'*; SRZ: opts for *sýromjat'*, but *sýromjatka* and °*syromét'* also possible.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>tetrádka > täträtkä</i> (DW, KA, SRZ)												
Ů	+							-				0.18531
<i>téxnika > texnika</i> (DW)												
-	-								x			0.00000
<i>tiskí > čysky</i> ⁵⁴ (DWS, SRZ)												
-												0.00000
<i>tiskí > čyský</i> (DWS, KA, SRZ)												
Ů												1.00000
<i>tjátja > tätä</i> (DW, SRZ)												
-												0.00000
<i>tjátja > tätä</i> (DW, SRZ)												
Ů												1.00000
<i>tjujǰák > tüpǰäk</i> (DWS, SRZ)												
	p											1.00000
<i>tjur(ʹ)má > türmä</i> (DWS, KA, SRZ)												
-												0.00000
<i>tóčka > točka</i> (DW)												
-						-						0.00000
<i>tólku > tuolku</i> ⁵⁵ (DWS, KA)												
ŮV												1.00000
<i>tolkúj > tolkuj</i> (DW, KA, SRZ)												
-												0.00000
<i>tolmáč > tulumás</i> ⁵⁶ (DW, DWS, KA, SRZ)												
Ů												1.00000
<i>toloknó > tolokno</i> (DW, DWS, KA, SRZ)												
-												0.00000
<i>toloknó > tolokno</i> (DW, SRZ)												
Ů												1.00000
<i>toloknó > toloktuo</i> (DWS, SRZ)												
ŮV												1.00000
<i>toloknó > tolonkuo</i> (DWS, KA, SRZ)												
ŮV												1.00000
<i>tónja > tuoña</i> (DW, KA, SRZ)												
ŮV						-						0.00676
<i>topčán > tapčan</i> (DWS, SRZ)												
-												0.00000
<i>toporišče > toporuša</i> (SRZ)												
-	+											0.97136

⁵⁴ Čysky, čyský: DWS, KA: < ščipej; SRZ: not < ščipej but < tiskí.⁵⁵ KA: as tuolku.ta only.⁵⁶ DW: as tulumás.tä only.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
týsjača > tyhýčča (DW, SRZ)						h, čč							1.00000
týsjača > tyhýnča (DW, SRZ)						h, nč							1.00000
učébnik > učebnik (DW)	-	-				č							0.00000
učeník > učenik (DW)	-	-				č							0.00000
učěnyj > učěnaj (DW)	-					č	-						0.00000
učilišča > učilišča (DW)	-	-				č, šč							0.00000
učilišče > učilišče (DW)	-	-				č, šč							0.00000
učitel' > učital (DW)	-	-				č							0.00000
učitel' > učital (DW, KA)	Ů	-				č							0.00712
učitel' > učital.lā (DW)	-	-				č							0.00000
učitel' > učitel' (DW, KA)	-	-				č							0.00000
učitel' > učitel' (DW, KA)	Ů	-				č							0.00712
učitel' > učittāl (DW, KA)	Ů	-				č							0.00712
učitel' > ut'ital (DW, KA)	Ů	-				t'							0.00712
učiteljā > učitelja (DW)	-	-				č							0.00000
učitel'nica > učital'nīsa ⁵⁷ (DW, KA)		-				č, s					s		0.00000
učitel'nica > učitel'nica (DW, KA)	-	-				č, c					c		0.00000
udárnik > udarnik (DW)	-	-											0.00000
úgol' > ugol' (DW, KA, SRZ)	-												0.00000

⁵⁷ No ' in DW; in KA no ' in the entry but with the commentary "sicher pro *učital'nīsa".

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>úgol'</i> > <i>ūgol'</i> (DW, KA, SRZ)												1.00000
Ů												
<i>úgol'</i> > <i>ūgul'</i> ⁵⁸ (DW, KA, SRZ)												1.00000
Ů												
<i>ukázka</i> > <i>ukāska</i> (DW, KA)												1.00000
Ů												
<i>ukraíneč</i> > <i>ukraíneč</i> (DW)	-	-								c		0.00000
<i>úlica</i> > <i>ulica</i> (DW, SRZ)	-	-			c					c		0.00000
<i>Ul'jána</i> > <i>Ylžana</i> (DWS, KA)	-											0.00000
<i>úntik</i> > <i>ūnčik</i> (DW, KA)	Ů	-										0.02864
<i>urók</i> > <i>urok</i> (DW)	-											0.00000
<i>urók</i> > <i>uruok</i> (DW)	ŮV											1.00000
<i>ušát</i> > <i>usát</i> (DW, KA, SRZ)	Ů				s							0.00939
<i>uškán</i> > <i>uskán</i> (DW, KA, SRZ)	Ů											1.00000
<i>ustáv</i> > <i>ustāp</i> (DW, KA, SRZ)	Ů		p									1.00000
<i>útrennik</i> > <i>utrennik</i> (DW)	-	-										0.00000
<i>uxá</i> > <i>uxā.lan</i> (DWS, KA, SRZ)	Ů								x			0.02908
<i>várka</i> > <i>bārky</i> (DW, DWS, KA, SRZ)	Ů		b									1.00000
<i>Varvá(ra)</i> > <i>Barbā</i> (DW)	Ů		b, b									1.00000
<i>Varvár'ev</i> > <i>barbārajep</i> ⁵⁹ (SRZ)	Ů	-	b, b, p									0.88181
<i>Vasilěj</i> > <i>Bahylaj</i> (DW, KA)	-	+	b		h							0.99554
<i>Vasilěj</i> > <i>Basylaj</i> (DW, KA)		+	b		s							0.52791

⁵⁸ SRZ: as *ūgul'*; probably a typo because it only quotes DW and KA where it is without '.⁵⁹ SRZ: or < *Varvárín*.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ź	index
<i>Vasil'ev > Basilijäp (DW)</i>												
-	-	<i>b, p</i>			<i>s</i>							0.54483
<i>Vasil'evič > Bahylajbys (DW, KA)</i>												
-	+	<i>b, b</i>			<i>h</i>							0.99676
<i>Vasi(lij)* > Basī⁶⁰ (DWS, KA)</i>												
Ů	-	<i>b</i>			<i>s</i>							0.37887
<i>Vásja > Bačā (DWS, KA)</i>												
		<i>b</i>			<i>č</i>							0.44340
<i>Vásja > Batā⁶¹ (DWS, KA)</i>												
		<i>b</i>										1.00000
<i>vedró > bādoró (DWS, KA, SRZ)</i>												
-	-	<i>b</i>					-					0.60287
<i>vek > bāk (DW, KA, SRZ)</i>												
-		<i>b</i>										0.98824
<i>vek > biäk (DW, DWS, KA, SRZ)</i>												
ŮŮ		<i>b</i>										1.00000
<i>veläk > bölüök (DWS, KA)</i>												
ŮŮ	+	<i>b</i>					+					1.00000
<i>Velíkaja* > Velikaj (DW)</i>												
-	-	<i>v</i>										0.00000
<i>vénik > miänik (DW, KA, SRZ)</i>												
ŮŮ		<i>m</i>										1.00000
<i>vénik > myñnyk (DW, KA, SRZ)</i>												
-		<i>m</i>										0.98824
<i>Véra > Biärä (DW, KA)</i>												
ŮŮ	+	<i>b</i>										1.00000
<i>verstá > biärästä (DW, KA, SRZ)</i>												
	+	<i>b</i>										1.00000
<i>vertljúg > böltürük (DW, KA)</i>												
-	+	<i>b</i>										0.99159
<i>vertolët > vertolët (DW)</i>												
-	-	<i>v</i>					-					0.00000
<i>vétka > bākkā (DW, KA, SRZ)</i>												
Ů	+	<i>b</i>						+				1.00000
<i>vezdexód > vezdexod.tāk (DW)</i>												
-	-	<i>v</i>					-		<i>x</i>			0.00000
<i>vílka > bīlkā (DW, SRZ)</i>												
Ů	+	<i>b</i>										1.00000

⁶⁰ DWS, KA: < *Vasja*.⁶¹ DWS, KA: < *Vásja* or *Vása*; *t* from a contamination with *Vasjata* / *Vasjuta*.

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>vílki</i> > <i>vílki</i> (SRZ)	Ů		v										0.01176
<i>Vítálij</i> > <i>Mäta</i> ⁶² (KA)	-	-	m										0.70642
<i>vlast'</i> > <i>bylās</i> (DW)	Ů		b	CVC									1.00000
<i>vóin</i> > <i>voin</i> (DW)	-	-	v				-						0.00000
<i>vojná</i> > <i>bajnā</i> (DW)	Ů		b										1.00000
<i>voprós</i> > <i>bopruos</i> (DW, KA)	ŮV		b										1.00000
<i>voprositel'nyj*</i> > <i>voprositel'nyj</i> (DW)	-	-	v			s							0.00000
<i>vorónka</i> > <i>boruonka</i> (DW, KA, SRZ)	ŮV		b				-		-				0.22059
<i>vosklicatel'nyj*</i> > <i>vosklicatel'nyj</i> (DW)	-	-	v			c					c		0.00000
<i>vóspa</i> > <i>bospa</i> (DWS, KA, SRZ)	-		b				-						0.36228
<i>vóvse</i> > <i>buopsa</i> (DW, KA, SRZ)	ŮV	+	b, p										1.00000
<i>vóvse</i> > <i>buosa</i> (DW, KA, SRZ)	Ů	+	b, Ø			s	-						0.44574
<i>vožátaj</i> > <i>vožataj</i> (DW)	-		v			ž						ž	0.00000
<i>vrač</i> > <i>vrač</i> (DW)	-		v	CC									0.00000
<i>výbor.y</i> > <i>výbor.dar</i> (DWS, KA, SRZ)	Ů		v										0.01176
<i>výmpel</i> > <i>vympel</i> (DW)	-	-	v										0.00000
<i>vypísyvaj*</i> > <i>vypisyvaj.dā</i> (DWS)	-	-	v, v			s							0.00000
<i>výstavka</i> > <i>pýstapka</i> (DW, KA)	Ů		p, p										1.00000
<i>výstavka</i> > <i>vystavka</i> (DW)	-		v, v										0.00000
<i>vystupáj*</i> > <i>vystupaj.dā</i> (DWS)	-		v										0.00000

⁶² DWS: under a question mark.

Russian > Dolgan (sources)

Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>zakón > hakuon</i> (DWS, KA, SRZ)												
ŮV				h			-					0.48640
<i>zakón > hokuon</i> (DWS, SRZ)												
ŮV				h			+					1.00000
<i>zakón > zakon.nāk</i> (DW, DWS)												
-				z			-					0.00000
<i>zakúska > hakūska</i> (DW, KA, SRZ)												
Ů				h								1.00000
<i>zal > zal</i> (DW)												
-				z								0.00000
<i>zalív > halíp</i> (DWS, KA)												
Ů	-	p		h								0.75294
<i>zamók > hamok</i> (DWS, KA, SRZ)												
-				h			-					0.46126
<i>zamók > samok</i> (DWS, KA, SRZ)												
-				s			-					0.00000
<i>zanavés > hanābus</i> (DWS, SRZ)												
	+	b		h								1.00000
<i>zanavés > hanabūs</i> (DWS, KA, SRZ)												
Ů	+	b		h								1.00000
<i>zanavés > hanabys</i> (DWS, SRZ)												
-	+	b		h								0.99272
<i>zanavés > hanābys</i> (DWS, SRZ)												
	+	b		h								1.00000
<i>západ > hāpat</i> (DW, KA, SRZ)												
Ů				h								1.00000
<i>západ > hāppat</i> (DW, KA, SRZ)												
Ů				h								1.00000
<i>západ > sāpat</i> (DW, KA, SRZ)												
Ů				s								0.05169
<i>zapás > hapās</i> (DW, KA, SRZ)												
Ů				h								1.00000
<i>zarjádka > zarjadka</i> (DW)												
-				z				-				0.00000
<i>zarpláta > harpylāt</i> (DW, DWS, KA)												
Ů				h								1.00000
<i>zarpláta > sarplata</i> (DWS)												
-				s								0.00000
<i>zasáda > zasada</i> (DW)												
-				z	s							0.00000
<i>zátxlyj > hāglaj</i> (DW, KA, SRZ)												
Ů				h					k			1.00000

Russian > Dolgan (sources)

	Ů	AE	F	CC	SV	VSV	PL	RL	ŃŃ	X	C	Ž	index
<i>žurnál</i> > <i>surnāl</i> (DW, KA)	Ů				s							s	0.00828
<i>žurnál</i> > <i>žurnal</i> (DW, DWS)	-				ž							ž	0.00000
<i>žurnál</i> > <i>žurnāl</i> (DWS, KA)	Ů				ž							ž	0.00828
<i>zveroférma</i> > <i>zveroferma</i> (DW)	-	-	v, f	CC									0.00000
<i>zvězdočka</i> > <i>zvězdočka</i> (DW)	-		v	CC			-						0.00000
<i>zvonók</i> > <i>zvonok</i> (DW)	-		v	CC									0.00000
<i>zvuk</i> > <i>zvuk</i> (DW)	-		v	CC									0.00000

adapta- tion	considered outcomes		all possible outcomes					
	+	-	-: 599	Ÿ: 362	ŸV: 164	unclear: 44		
Ÿ	526 V, ŸV	599 -						
AE	257 +	265 -, Ø		+: 257	Ø: 4	n/a: 647		
F	192 b, g, h, m, p, t, Ø	89 f, v	b: 107 v: 69	p: 65 f: 20	g: 7 Ø: 8	m: 3 h: 1	t: 1 n/a: 906	
CC	110 2C, C ₁ , C ₂ , CVC, metathesis, VCC	110 CC	CC: 110 CVC: 60	VCC: 25 C ₂ : 17	meta.: 6 2C: 1	C ₁ : 1 n/a: 949		
SV	115 h, Ø	96 c, č, s, š, t', z, ž	h: 102 s: 52	č: 28 Ø: 13	z: 8 ž: 4	š: 2 c: 1	t': 1 n/a: 958	
VSV	37 čč, h, nč, ss	165 c, č, s, š, s, šč, t', z, ž	s: 61 č: 50 h: 23	z: 15 c: 12 ž: 10	ss: 7 šč: 7 čč: 6	š: 4 s: 3 t': 2	nč: 1 n/a: 982	
PL	14 +	119 -		+: 14	n/a: 1036			
RL	43 +	70 -		+: 43	n/a: 1056			
NŸ	7 +	45 -		+: 7	n/a: 1117			
X	26 g, h, k	21 -	k: 24	x: 21	g: 1	h: 1	n/a: 1122	
C	18 h, some s ⁶³ , ss	26 c, some s ⁶³	c: 24	h: 10	s: 6	ss: 4	n/a: 1125	
Ž	4 h	27 s ⁶⁴ , ž	ž: 20	s: 7	h: 4	n/a: 1138		

Table 1. Reduction of all possible outcomes of adaptations to two

⁶³ I counted *s* as a - when it was in anlaut or intervocalic, i.e. in a position in which it should have been changed to *h*, and as a + in all other surroundings. Cf. 2.2. SV and VSV.

⁶⁴ Essentially, I treated *s* as in C above. However, in all the examples (*hibiäsäj*, *kuosa*, *muosabyt*, *pusälusta*, *rosostuo*, *susunaj* and *surnäl*) it turned out to be a -.

	Ÿ		AE		F		CC		SV		VSV		PL		RL		NN		X		C		Ž		
	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-	
Ÿ	+		165	43	116	6	76	9	36	74	36	21	58	10	55	30	19	3	18	21	6	11	1	4	9
	-		75	218	50	78	27	101	36	60	36	60	6	94	2	62	11	51	4	27	5	12	6	24	0
AE	+	165	75		68	1	31	7	40	22	19	40	9	27	31	11	4	17	5	2	14	1	2	3	3
	-	43	218		19	43	9	40	8	15	1	68	0	21	0	31	1	14	2	7	1	21	0	11	11
F	+	116	50	68	19		35	3	39	11	5	21	2	31	19	12	4	5	1	1	8	0	0	2	2
	-	6	78	1	43		0	23	0	5	0	15	0	15	0	14	0	2	0	2	0	5	0	4	4
CC	+	76	27	31	9	35	0		26	6	3	11	2	9	3	4	1	3	3	0	3	0	0	1	1
	-	9	101	7	40	3	23		0	1	1	21	0	11	0	7	0	3	0	2	0	7	0	5	5
SV	+	74	36	40	8	39	0	26	0		1	7	2	8	5	5	1	4	5	0	10	0	2	1	1
	-	36	60	22	15	11	5	6	1		1	7	0	6	0	7	0	2	0	2	1	2	1	7	7
VSV	+	21	6	19	1	5	0	3	1	1	1			4	5	8	0	0	1	0	1	3	0	2	0
	-	58	94	40	68	21	15	11	21	7	7			2	14	8	4	0	7	6	2	0	15	1	16
PL	+	10	2	9	0	2	0	2	0	2	0	4	2		5	0	0	1	0	0	2	0	1	0	0
	-	55	62	27	21	31	15	9	11	8	6	5	14		12	21	1	10	1	4	6	3	0	4	4
RL	+	30	11	31	0	19	0	3	0	5	0	8	5	5	12			0	0	1	2	3	0	1	1
	-	19	51	11	31	12	14	4	7	5	7	0	4	0	21			0	1	1	1	2	2	0	2
NN	+	3	4	4	1	4	0	1	0	1	0	0	0	0	1	0	0					1	0	0	0
	-	18	27	17	14	5	2	3	3	4	2	1	7	1	10	0	1					1	0	0	2
X	+	21	5	5	2	1	0	3	0	5	0	0	6	0	1	1	1							0	0
	-	6	12	2	7	1	2	0	2	0	2	1	2	0	4	2	1							0	0
C	+	11	6	14	1	8	0	3	0	10	1	3	0	2	6	3	2	1	1						
	-	1	24	1	21	0	5	0	7	0	2	0	15	0	3	0	2	0	0						-
Ž	+	4	0	2	0	0	0	0	0	2	1	2	1	1	0	1	0	0	0	0	0				
	-	9	18	3	11	2	4	1	5	1	7	0	16	0	4	1	2	0	2	0	0	1			

Table 2. Counts of co-occurrence of adaptations pairwise

then if	Ť	AE	F	CC	SV	VSV	PL	RL	NN	X	C	Ź
	with applications[%]											
Ť	79.33	95.08	89.41	67.27	26.58	15.38	61.22	14.29	77.78	91.67	30.77	
AE	68.75	98.55	81.58	64.52	32.20	25	73.81	19.05	71.43	93.33	40	
F	69.88	78.16	92.11	78	19.23	6.06	61.29	44.44	50	100	0	
CC	73.79	77.50	100	81.25	21.43	18.18	42.86	25	100	100	0	
SV	67.27	83.33	100	100	12.50	20	50	20	100	100	66.67	
VSV	77.78	95	100	75	50	44.44	100	0	0	100	100	
PL	83.33	100	100	100	100	66.67	100	0	-	100	100	
RL	73.17	100	100	100	100	50	29.41	-	33.33	100	50	
NN	42.86	80	100	100	100	-	0	-	-	100	-	
X	80.77	71.43	100	100	100	0	50	-	-	-	-	
C	64.71	93.33	100	100	90.91	100	25	60	50	-	-	
Ź	100	100	-	-	66.67	100	100	-	-	-	-	
	with non-applications[%]											
Ť	25.6	39.06	21.09	37.50	6	3.12	17.74	12.90	29.41	20	0	
AE	16.48	30.65	18.37	34.78	1.45	0	0	6.67	22.22	4.55	0	
F	7.14	2.27	0	0	0	0	0	0	0	0	0	
CC	8.18	14.89	11.54	0	4.55	0	0	0	0	0	0	
SV	37.5	59.46	68.75	85.71	12.5	0	0	0	0	33.33	12.5	
VSV	38.16	37.04	58.33	34.38	50	12.5	66.67	0	75	0	5.88	
PL	47.01	56.25	67.39	45	57.14	26.32	36.36	9.09	20	66.67	0	
RL	27.14	26.19	46.15	36.36	0	0	0	0	50	50	0	

	40	54.84	71.43	50	66.67	12.5	9.09	0	-	100	0
NN	33.33	22.22	33.33	0	0	33.33	0	66.67	-	-	0
X	4	4.55	0	0	0	0	0	0	-	-	-
C	33.33	21.43	33.33	16.67	12.5	0	0	33.33	0	0	-

Table 3. Frequencies of co-occurrence of adaptations pairwise⁶⁵

	Ů	AE	F	CC	SV	VSV	PL	RL	NN	X	C	Ž
'triggerred' by applications [%]	72.94	87.1	99.36	93.81	81.69	39.53	25.77	69.92	21.6	61.79	98.33	48.43
'triggerred' by non-applications [%]	26.57	29.52	41.81	27.96	27.3	8.79	2.25	20.07	3.18	21.85	30.51	1.84

Table 4. Average frequencies of co-occurrence of adaptations

⁶⁵ The table can be read as <column> is 'triggerred' by <row>. For example, all words with Ž+ also have Ů applied to them but only 30.77% of words to which both adaptations are applicable and to which Ů was applied, also have Ž+, i.e. Ů is always 'triggerred' by Ž, while Ž is only 'triggerred' by Ů in less than a third of the examples. Cf. 1.5. and Table 1.

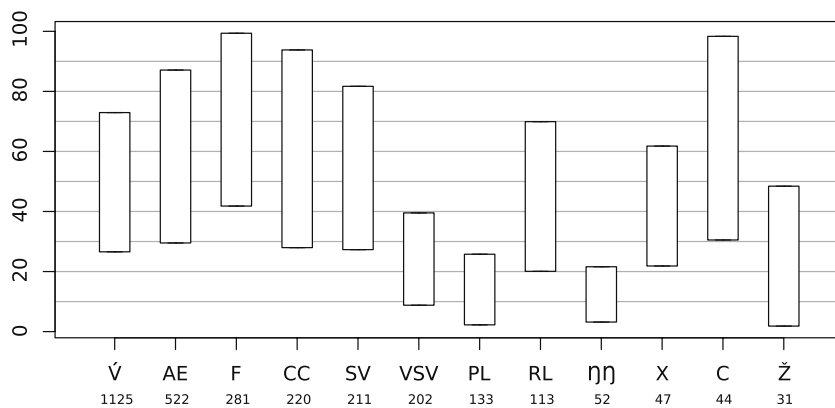


Chart 1. Commonness of adaptations in more and less nativized loanwords

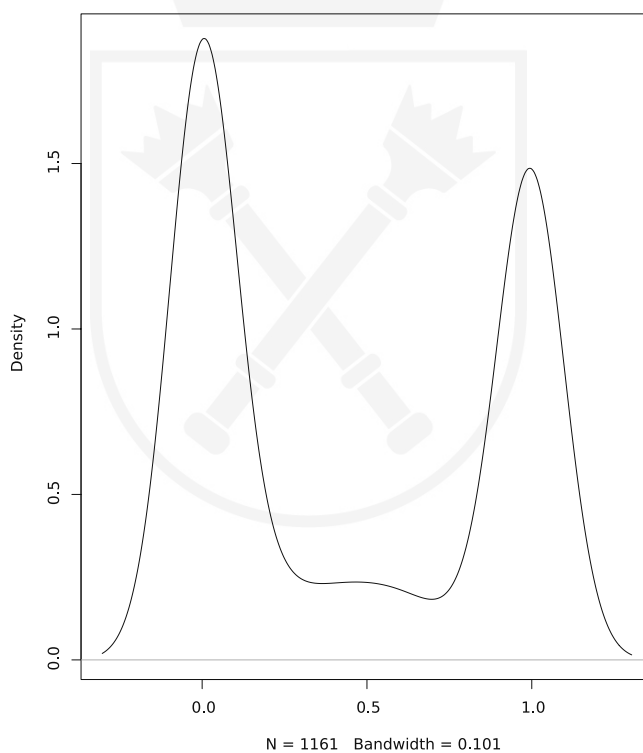


Chart 2. Kernel density estimation of index of nativization

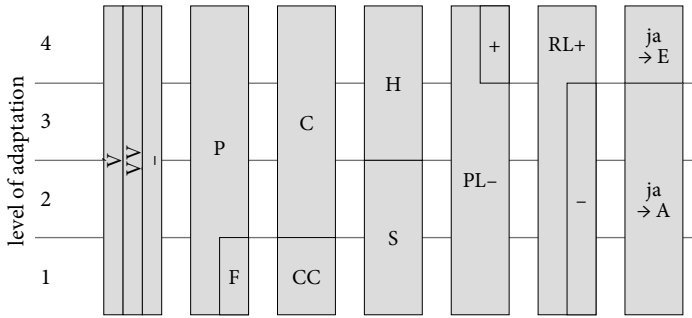


Chart 3. Levels of adaptation based on a group of 605 loanwords⁶⁶



⁶⁶ Bars represent (see 2.2. for a more comprehensive explanation, although different in some details): **1.** rendering of the Russian accented vowel, **2.** adaptation of *f* and *v*, **3.** adaptation of initial consonant clusters, **4.** adaptation of initial *c*, *č*, *s*, *š*, *z* and *ž*, **5.** progressive labialization, **6.** regressive labialization, and **7.** impact of *ja* / *já* on vowel harmony (I abandoned this adaptation later on; settling the vowel harmony of Dolgan words turned out to be more complex a topic than I had expected at first, and would have led my search astray into the so far unexplored network of interconnections).

It can be seen that e.g. initial consonant clusters are not repaired only in the least adapted words, *ja* / *já* causes a shift to front harmony only in the most adapted ones, and progressive labialization is present only in a part of the most adapted ones.