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A DIFFERENT LOOK AT THE LUTSK KARAIM SOUND SYSTEM (FROM THE SECOND HALF OF THE 19TH CENTURY ON)

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Abstract

After endeavouring to examine the grammatical descriptions published in the literature to date and to reconstruct the sound system of the south-western dialect of Karaim as it was presented in the literature, it can certainly be concluded that the matter is far from clear. This is for the simple reason that these works contradict each other at various points. The reason for such discrepancies should be sought in the historical and linguistic backgrounds of the two main centres of the south-western Karaim population, i.e. Lutsk and Halich. Even though these two centres were always in close communication with one another, and the language that was spoken in them originates beyond any doubt from one common root, they remained for centuries under slightly different linguistic influences as a result of the Slavonic languages surrounding them. The present paper aims to present and, where possible, clarify the differences which follow from the studies on the Karaim sound system we have at our disposal. An attempt is also made to identify some differences between the Lutsk and Halich subdialects of south-western Karaim, and explain their origin. Since the grammatical descriptions we are dealing with here and the written sources we are able to work with concern the end of the first half of the 19th century at the earliest, the time scale of our interest is limited to the second half of the 19th and the first four decades of the 20th century.

1. Preliminary remarks; **2.** Unresolved issues regarding the Lutsk Karaim sound system: **2.1.** The question of *e*-type vowels; **2.2** Palatality: **2.2.1** The distribution of [ć], [ś], [ź], [ń], and the special status of [ʒ́]; **2.2.2** The phonetic value of /t/ and /d/ in front of [i];

2.2.3 The distribution of [ł] and [l]; **2.3** The alveolar [č], [š], [ž] and [ǯ]; **2.4** The question of the fricative [χ], [h], and [ɣ] and its continuants; **2.5** The question of the glide [u̯] and the labiodental [v]; **3.** Final remarks; **4.** Abbreviations; **5.** References.

1. Preliminary remarks

Even though the south-western Karaim phonetic system has been presented several times in a number of articles and grammatical descriptions, a few questions remain unanswered. To be more precise: the questions do have their answers, but at many points the answers contradict each other. Hence, the knowledge we have on this matter remains, in certain areas, confused and hazy. Seen in this light, the present article narrows itself to comparisons of the descriptions of the phonetic features of the Lutsk subdialect of south-western Karaim, with regard to which there is a lack of consensus.

There are at least six authors that should be referred to here. First of all we ought to mention two early works of Grzegorzewski (1903 and 1916–1918), which, although written by a non-Turkologist and therefore not free from certain inaccuracies, provide invaluable material regarding the real pronunciation of Karaim in Halich at the end of the 19ᵗʰ and the beginning of the 20ᵗʰ centuries. Grzegorzewski's work is important in light of the fact that he had the opportunity for personal contact with Karaims. His main informants were Rebeka Leonowicz (born around 1891) the daughter of Jaakow Josef Leonowicz the *chazzan* of Lutsk in the years 1914–1917, and Mordechaj Leonowicz (we can find this information e.g. in Grzegorzewski 1903: 74; 1916–1918: 282, 288). Another important work in this field is Kowalski's "Karaimische Texte", published in 1929, which contains not only an exhaustive description of Trakai Karaim, which was the main subject of the study, but also happens to be enriched with important south-western Karaim linguistic data (see, above all, pp. xli–xlv, xlvii–xlviii). Noteworthy is the fact that Kowalski was also able to meet Lutsk Karaims in person in 1926 (see e.g. Dziurzyńska 1999: 51), which allowed him to record south-western Karaim linguistic data in a careful phonetic transcription. The next text is a brief grammar published by A. Zajączkowski (1931) – a native speaker of Trakai Karaim – which contains a very brief phonetic description (pp. 7–9) intended, among others, for "elderly people and school children", as stated in the introductory remarks on pages 3–4. For the latter reason the work is less scientific and less detail-oriented, too. The next author to deal with southern Karaim phonetics was O. Pritsak, a Ukrainian-born researcher, whose contribution to the field was published in *Philologiae Turcicae Fundamenta* (1959). His phonetic description is concise but at the same time fairly detailed, thus it should not be neglected in our research. Chronologically the next study is Musaev's (1964) grammar with a very long chapter devoted to phonetics (pp. 43–93), which is, however, not free from errors and misinterpretations, thus it must be used somewhat cautiously – as will be argued below. Finally, 1978 saw the publication of a 12-page description of southern Karaim phonetics prepared by A. Dubiński – again a Karaim-speaker from Trakai. His article is based on linguistic data collected as a result of

consultations with native-speakers from both Lutsk and Halich, too (see Dubiński 1978: 35). Later works, like. e.g. Moskovič and Tukan (1993), Berta (1998) or Mireev and Abragamovič (2008), do not cast any additional light to the issue.

2. Unresolved issues regarding the Lutsk Karaim sound system

There is a more or less general consensus on the set of sounds used in Karaim; we have presented this below in Tables 1 and 2.[1] The different opinions we mentioned concern above of all, although not exclusively, the phonetic values of the combinatory variants of some of the sounds. Interestingly enough, the discrepancies we are going to discuss in our paper were not presented within the framework of a discussion, for the simple reason that the authors simply did not quote each other or refer to other, similar works when presenting the Karaim phonetic system. Hence, the differences in the phonetic interpretations of the written and oral materials of southern Karaim must be ascertained by the reader on his or her own.

For the sake of transparency, the most debatable opinions will be presented in the subsequent subchapters chronologically.[2]

		Front		**Central**		**Back**	
High		i				y	u
	Close-mid	(ė)					o
Low	**Open-mid**	e					
	Open			a			
		Unrounded	**Rounded**	**Unrounded**		**Rounded**	

Table 1. Vowel sounds in Lutsk Karaim

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[1] Consonants are palatalized in front of [i]. Because of this, and since the palatal element in these sounds is a result of a slight coarticulation, we decided not to indicate this kind of "soft" articulation in the transcription – for the sake of transparency. Graphemes ‹ŧ› and ‹đ› are presented in the table below because they denote consonants which have the status of phonemes. At the same time phonemes /t/ and /d/ have palatal allophones, the articulation of which is shifted to dorsal stops (noted with ‹ŧ› and ‹đ›). To date the acute accent has been used by various authors to note palatality, with the sole exception of the palatal [t́], [d́] – these were always marked with an apostrophe (i.e. with t́ and d́). Moreover, in some works both the dorsal and the palatal combinatory variants of /t/ and /d/ were used with these symbols (cf. e.g. Berta 1998). Therefore we use the acute accent to note palatality, consistently, i.e. also for t́ and d́, while for the dorsal variants we introduce symbols ŧ and đ. We do not use ɣ and ɓ as applied in Kowalski (1929) and Pritsak (1959), since in these works ɣ rendered both /t/ and /k/, while ɓ was used for /d/ and /g/ – all of them in front of [i]. We think, however, that the articulation of these consonant pairs was different (in this position) in Lutsk Karaim.

[2] When quoting linguistic data presented by other authors, we decided to apply it in their transcription, since the transcription used by them also reflects their opinion on the matter.

	Bilabial	Labio-dental	Dental	Palato-dental	Alveolar	Dorsal	Palatal	Palato-velar	Velar	Uvular
Plosives	p b		t d	ť ď		ŧ đ		ḱ ǵ	k g	
Affricates			c ʒ		č ǯ		ć ź			
Fricatives		f v	s z		š ž		ś ź		χ h	ɣ
Nasals	m		n				ń			
Liquids			ł		l					
Trill					r					
Glides	u̯						i̯			

Table 2. Consonant sounds in Lutsk Karaim

2.1 The question of *e*-type vowels

Grzegorzewski was, as far as we are aware, the first to note an open-mid [e] and a close-mid [ė] for Karaim. These sounds are not distinguished either in Latin or in Cyrillic, let alone in Hebrew script.[3] The existence of the former is not in question and it did not arouse doubts in any of the works dealing hitherto with phonetics, either. But the existence and the distribution of the latter is not entirely clear since its appearance was tied to different phonetic environments.

In Grzegorzewski's view, [ė] appeared in Halich Karaim only after /k/ as a result of the *ky* > *ḱė* change, see Grzegorzewski (1916–1918: 254, 256f.; 1917: 3). This tiny fragment of information is repeated, without presenting any additional data, by Kowalski (1929: XLII), Pritsak (1959: 327) and Musaev (1964: 48).

Somewhat different, however, is the description we find in Dubiński (1978: 36). In this case, the author postulates [ė] in other positions than the above mentioned one:

> […] Die nächste phonetische Eigentümlichkeit des H. Dialektes beruht auf einem Engvokal *ė*. Diese Erscheinung war bis jetzt sehr wenig untersucht worden und stellt vor allem eine Besonderheit der Umgangssprache dar. […] Der Engvokal *ė* tritt häufig vor einer den Engvokal *i* enthaltenden Silbe auf. Beispiele: *ałyïyd anï ėzine* 'er hätte ihn zu sich genommen', *k'ełdi mana ėsime* 'es kam mir in den Gedanken' *mėnim icin* 'für mich', *yėdi* 'sieben', *yėngiłrek* 'leichter'. Manchmal haben wir mit dem Engvokal *ė* dann zu tun, wenn in den übrigen Dialekten in derselben Stellung ein *i* nach *k* (*ki*) folgt. Gleichzeitig kommt im H. Dialekt eine Palatalisierung des *k* (*k'*) unter Einwirkung von *ė* vor. Beispiele: T. *akïŋłï* — H. *ak'ėłłi* 'klug', T. *kïbin* — H. *k'ėbin* 'Kuchen', T. *kiłmax* H. *k'ełmak* 'Tat'. […]

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3   This is what we read in Dubiński (1978: 36):

> In der Orthographie war der Engvokal niemals angemerkt worden. So war es in den älteren Texten der hebräischen Schrift, wie auch in der Zeitschrift „Karaj Awazy" und literarischen Werken vor dem zweiten Weltkrieg, die auf der Grundlage von Regeln der polnischen Rechtschreibung herausgegeben wurden.

Thus, in Dubiński's opinion the close-mid [ė] emerged in south-western Karaim as a result of two different processes, i.e. due to the same development described by Grzegorzewski and others, and as an outcome of the *e > ė* change under the influence of [i] in the subsequent syllable. Both of these processes are, however, in his view irregular and merely reflect a tendency.

With regard to the *ky > ḱė* process, Dubiński repeats Pritsak's opinion that the change took place in Karaim as a result of the influence of Ukrainian dialectal articulatory habits. And, indeed, turning to Zilynśkyj (1979: 48–49) we discover that in western Ukrainian dialects the segment **ky* was also pronounced as "*ḱê*" [the symbol *ê* is used by the author to note a "raised mid" *e*-type vowel, see p. 35 of the discussed book[4]]. The only slight disadvantage of identifying this process with the one recorded for Halich Karaim is the fact that in Ukrainian it operates mostly in accented syllables, while for Halich Karaim A. Zajączkowski (1931: 7) notes it in an unaccented position, too, cf. *akył ~ aḱėl* 'intellect' and *kyjyn ~ ḱėjyn* 'torment'. We, however, do not consider this to be a decisive counterargument since Zilynśkyj (1979: 48, 49) also reports that in western pronunciation the unaccented [y] may undergo a "somewhat lesser narrowing and a lack of tenseness", as a result of which the difference between the y- and *e*-type vowels is often effaced.

Based solely on Karaim philological evidence it is difficult to say anything conclusive with regard to the other positions, in which, according to Dubiński, [ė] appeared (i.e. in front of [i]). The argument supporting Dubiński's observation comes, once again, from Ukrainian dialectal linguistic data, even though we find similar processes on Turkic ground, such as e.g. the umlaut-like changes attested to Uyghur, a good example being Uyg. *kes-* 'to cut' → *ḱėsip* '*conv.* having cut' (see e.g. Räsänen 1949: 79, Tenišev 1984: 82). We would, however, opt for a different argumentation:

Namely, in western Ukrainian dialects [e] is often narrowed to [ė] in front of palatal consonants (see Zilynśkyj 1979: 55). Bearing in mind the fact that, as is argued below, KarL. [i] in the vast majority of cases palatalizes the preceding consonant or group of consonants, this "definition" in fact covers all the remaining examples enumerated by Dubiński, i.e. [in Dubiński's description] *ėźine*, *ėśime*, *mėńim*, *jėďi* and *jėńǵiłrek*.

Finally, we should mention A. Zajączkowski's remark, which, although rather brief, casts some additional valuable light on the question. According to his observation, the *y > ė* sound change after /k/ was characteristic above all of the pronunciation of Karaim spoken in Halich.[5] This raises the question of whether the close mid [ė] was characteristic of both subdialects or not.

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[4]   Zilynśkyj's monograph is a translation of his book published in Polish in 1932 (Ziłyński 1932). In the latter we learn that the Ukrainian linguistic data was collected by the author from 1904 till around 1927 (see Ziłyński 1932: vii–x). As a consequence, the information we find in the English translation from 1979 reflects, in practice, the language as it was spoken at the beginning of the 20th century.

[5]   See A. Zajączkowski (1931: 7):

Jedynie *y* po *k* wymawia się jak wąskie *e* (nie tak szerokie jak zwykłe *e* i nie tak wąskie jak zwykłe *y*), przyczem *k* przechodzi w *k'* (miękkie) […]. Zjawisko to jednak występuje przeważnie w Haliczu.   ☞

Turning to Zilynśkyj (1979: 55) we discover that, generally speaking, the *e > ė* process in front of palatal consonants appeared in the Transcarpathian, Boikian, Hutsul, Lemkian and Podillian dialects. In other words, it was not recorded for Volhynia, where Lutsk is located, but only for the Halich area. Dejna (1957) did not note it in the Ternopil region either, which is – similarly to Volhynia – situated north of the zone where the change exists. This would suggest the conclusion that the *e > ė* sound change was not characteristic of the Lutsk subdialect of Karaim, or, at least, was simply limited to some idiolects.

The case is somewhat similar with the appearance of the *ky > k̇ė* process. A well-defined geographical division cannot be made based on both Zilynśkyj (1979: 48–49) and Dejna (1957: 132) since they tie this phenomenon to western Ukrainian dialects in general (without any detailed location provided). At the same time, however, Žylko (1958: 113–117) does not note it for the Volhynian dialect, but ascribes it to the upper Dniestrian dialect (i.e. the territories around Halich), only, see Žylko (1958: 73). This, in the final analysis, seems to support Zajączkowski's observation and allows us to say that the *ky > k̇ė* process was at least less characteristic of the Ukrainian dialects spoken in the surroundings of Lutsk, and, therefore, may have been much rarer in Lutsk Karaim pronunciation, too.

2.2 Palatality

The question of the distribution and the phonetic value of the palatal consonants has been presented by several authors in various ways. Since the issue in question concerns one of the most characteristic features of Lutsk Karaim, we decided to take a closer look at the works hitherto published and compare the conclusions – in some cases by quoting more important fragments *in extenso*. As the distribution of the dental [ł] and the alveolar [l] is closely related to that of the palatal consonants, we decided to include the discussion about them in this subchapter.

2.2.1   The distribution of [ć], [ś], [ź], [ń], and the special status of [ʒ́]

2.2.1.1 Grzegorzewski (1903; 1916–1918)

The first commentary on the distribution and the phonetic value of the sounds [ć], [ś], [ź], [ʒ́] and [ń] was provided by Grzegorzewski (1903: 6–7) in a chapter dealing with the dealveolarization process (he calls it *dzetacism*) of [č], [š], [ž] and [ǯ]. The description is as follows:

> Ihr Dzetazismus [= of Halich Karaims – M.N.] […] erhält sich unbedingt stets
> (mit Ausnahme einiger aus dem Hebräischen und Slawischen entnommenen

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This seems to be supported by the testimony of the written sources originating from Lutsk, since they do not show any traces of an *e*-type vowel in the position after [k]. In texts written in Latin script we have, consistently, ‹y›. In those rare ones recorded in Cyrillic script we see ‹ы› and, finally, in the vocalised fragments of manuscripts and printed sources attested in Hebrew script the vowel point *ḥirīq* (◌ִ) is used in this position, which, in the corresponding cases, always reflects the high back [y]. This, however, should be treated rather as supportive evidence and not as decisive proof.

> Morpheme) rein und ausdrücklich in den gutturalen Morphemen; in den palatalen dagegen scheint es zu schwanken, so daß z. B. dzetazisierende Spiranten vorwiegend in den akzentuierten Silben [sic! – M.N.] sehr rein auftreten, in anderen hingegen, samt dem palatalen *c* bei vielen Individuen, zu palatalisierten *š′, ž′, č′* werden, die den akustischen Eindruck machen, als kämen sie von *š, ž, č* her […]. Alle diese Erscheinungen betrachte ich als eine gewissermaßen dem *ś, ź, ć, dź* sich nähernde Abart des Dzetazismus selbst).

Later on Grzegorzewski (1916–1918: 255) changed his reasoning regarding the motive of the palatalization process: he did not repeat his idea of linking it to accentuation (a viewpoint we regard as rather obscure), but remarked that the palatals [ś], [ć], [ź], [ʒ́] appear in front of "palatal sounds"[6]. The latter statement cannot be regarded as an unambiguous definition at all – we cannot but wonder what kind of "palatal sounds" he meant. From the examples he provided using a pure phonetic transcription it transpires that he considered the front [i], and several other segments containing a consonant + [i] to have a palatalizing influence, cf. e.g. [in Grzegorzewski's transcription] *ićki* 'drink', *miśkin* 'poor, needy' or *keźin* 'you eye'[7] (Grzegorzewski 1916–1918: 255). But this is all we can say.

As we can see, Grzegorzewski does not mention here the case of the palatal [ń], which, as will follow from our argumentation below, appears as a combinatory variant of [n] in the same phonetic environment as [ć], [ś] and [ź]. On the one hand, it is reasonable to speculate that perhaps he did not note in his transcription the palatality of [ń] in front of [i] as a mannerism with its roots in Polish orthography, as e.g. in *seznin* 'word (gen)'. On the other hand, however, the fact that he did not list [ń] among the nasals in the table introducing his article Grzegorzewski (1903: 5) testifies decidedly against such an interpretation.

2.2.1.2 Kowalski (1929)

The description we find in Kowalski (1929: XLI) gives us a much more precise picture of the usage and phonetic value of the palatal consonants in question:

> Nur das *i* bewirkt in dem SW-Dialekt eine regelmäßige Palatalisierung der vorangehenden Konsonanten. Geht einem *i* eine aus zwei Bestandteilen zusammengesetzte Konsonantengruppe voran, werden sie meistens beide palatalisiert. […] Das Konsonanten *s, c, ʒ* ergeben vor *i* palatale Abarten, die in dem SW-Dialekt dem Klang nach betreffenden polnischen Lauten *ć, ś, ʒ́* vollständig ähneln, während sie in dem NW-Dialekt den betreffenden russischen Lauten ähnlich klingen.

It is surprising that Kowalski remains silent about [ź] in light of the fact that its pronunciation is also the same as that of the Polish *ź* (cf. A. Zajączkowski 1931: 8), as opposed to KarT. [z′], which tends more to resemble the corresponding Russian sound. Moreover, as the linguistic data shows, it undergoes the same assimilation processes in the palatal environment as the discussed [s], [c] and [ʒ].

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[6] "Przed palatalnemi głoskami występują palatalne też *ś, ć (ź, ʒ́)*" (Grzegorzewski 1916–1918: 255).

[7] Yet, he notes *ezine* 'self (poss.2.sg.dat)' in place of *eźine* (in the same paragraph), thus his transcription is not consistent.

It is important to bear in mind that in his work Kowalski dealt primarily with the Trakai dialect and his description of the southern Karaim phonetic system served merely as reference material for the reader. However, even though he wrote about tendencies, his short phonetic specification seems to be a bit too general. A number of consonants – more precisely [p], [b], [m], [f], [v] and [r] – do not become palatal when followed by a consonant + [i]. Consequently, the phonetic rule does not apply to such words as e.g. *tenri* 'God', in which the segment *-ri-* does not affect the preceding [n], otherwise it would be indicated at least in those texts written in Latin script (cf., however, 2.2.1.8).

2.2.1.3 Zajączkowski, A. (1931)

In his grammar, Zajączkowski formulates transparent and simple rules that are easy to memorise. According to him:

> Miękkie *ć*, *ś*, *ź*, *ń* brzmią identycznie jak w polskim. Występują w karaimskim w zgłosce zamkniętej […] przed grupami głosowemi: *ci*, *di*, *gi*, *g'e*, *ki*, *k'e*, *li*, *ni*, *si*, *ti*, *zi*. […] Jak polskie *ć*, *ś*, *ź*, brzmią również spółgłoski *c*, *s*, *z* przed *i* (chociaż w tym przypadku nie zaznacza się tego kreseczką u góry).", see A. Zajączkowski (1931: 8).[8]

This phonetic rule is not only simple, but is also corroborated by the linguistic data. Above all we should mention here texts published in Latin script – even though there are some features which are not reflected either in the Latin or Hebrew script. Luckily for us, however, the linguistic materials recorded and transcribed phonetically by scholars who had the opportunity to hear spoken Lutsk and Halich Karaim also support this notion. The only peculiarity of Zajączkowski's description is that he does not mention [ń] in the last quoted sentence. This would mean that [n] could be not palatalised before [i], which would be rather an inexplicable opinion to have. It is hard to imagine that the vowel which had the strongest palatalising influence did not trigger an [n] > [ń] change. We strongly believe, therefore, that the author's failure to mention [ń] separately was nothing but an oversight, even though Zajączkowski himself did not note the palatality of consonants in front of *i* in his works – following Polish orthography.

2.2.1.4 Pritsak (1959)

What we have missed in Zajączkowski's description is already present in Pritsak's paper – his view on the discussed palatal consonants is almost the same as Zajączkowski's (see Pritsak 1959: 328):

> Im Dialekt von Halič bewirkt nur *i* […] eine Palatalisierung des vorangehenden Konsonanten […]. Die Laute *ć*, *ś*, *ź*, *ń* treten außerdem in den geschlossenen Silben vor den Gruppen: *ći*, *d'i*, *ǵi*, *ǵe*, *k'i*, *k'ä*, *li*, *ńi*, *śi*, *t'i*, *źi* auf […].

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[8] Translation: The palatals *ć*, *ś*, *ź*, *ń* sound identical to those in Polish. In Karaim they occur in closed syllables […] in front of the segments *ci*, *di*, *gi*, *g'e*, *ki*, *k'e*, *li*, *ni*, *si*, *ti*, *zi*. […] The consonants *c*, *s*, *z* standing in front of *i* also sound like the Polish *ć*, *ś*, *ź* (however in this case we do not note this with a stroke above the letters).

We fully agree with this description, even though we have made a number of supplementary remarks in the conclusion to this subchapter.

2.2.1.5 Musaev (1964; 1977)

The two grammars compiled by Musaev provide hardly any valuable information about the palatal consonant system of Karaim. In fact, almost all we can find as a contribution to the current question in the 50-page chapter devoted to phonetics in Musaev (1964: 65) is the following sentence:

> Большинство согласных в отношении твердости и мягкости нейтральны и в зависимости от окружающих гласных могут артикулироваться с палатализацией или без нее: *д — д′, л — л′, м — м′, н — н′, с — с′, т — т′, ш — ш′* и т. д.

This is repeated also in Musaev (1977: 13), with somewhat different examples:

> Некоторые согласные позиционно могут выступать то как передние (мягкие), то как задние (твердые). Таковы, например, звуки *д — д′, к — к′, м — м′, н — н′, с — с′, з — з′, т — т′, ш — ш′.*

As we can see, Musaev misinterprets one of the most characteristic features of Karaim. While discussing separately the characteristic features of vowels, he devotes time and space to a discussion of, e.g., all the articulatory variants of [e],[9] but, at the same time he forgets to mention that KarL. *i* has a strong palatalizing influence (cf. e.g. Musaev 1964: 49). The fact that he fails to understand this process is conspicuous especially when turning to the chapter entitled "Переход сочетаний согласных" on page 87 of his work:

> В ряде сочетаний согласных […] в современном языке звуки полностью или частично заменяются другими:
> *ск > шк*: *мискин > Г. мишкин* 'бедный', 'несчастный', *иске > ишке* 'к делу', *тиске > тишке* 'к зубу'."[10]

From this it clearly transpires that in Musaev's opinion the *s > š* [or *ś*?] process is caused by the neighbouring [k], which is nonsense. He simply forgets to mention that the [k] is palatal in this case and stands in front of [i]. Even though he admits that *w* can also be pronounced "softly" depending on the phonetic environment (Musaev 1964: 70), his transcription completely eliminates the difference between the south-western Karaim alveolar and palatal consonants in general. Also worth mentioning is the fact that he describes the palatal [ć] as "something between [c] and [č]" (see Musaev 1964: 72), which, again, presents his grammar in an unfavourable light.[11]

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[9]   He mentions 8 of them: "*эъ, э, эˀ, ə, аъ; ᵘэ, ᵘə, ᵘаъ*", see Musaev (1964: 46). We would expect such a statement to be underpinned by an experimental analysis, but it is not. From the structure of the paragraph it does not transpire clearly which dialect this abundance of vowels concerns.

[10] At this point, actually, Musaev contradicts himself, since previously he claimed that "звук *ш* в Г. диалекте встречается лишь в заимствованиях" (Musaev 1964: 70). For the sake of clarity: words *is* 'work' and *tis* 'tooth' are not loanwords.

[11] Our negative critique concerns, however, not only the careless presentation of the southwestern material in the grammar, but also a number of misstatements regarding north-western

Moreover, he treats the palatality of Trakai and Lutsk Karaim consonants as the first element of non-existent diphthongs (see Musaev 1964: 43ff., 60–63), which distorts the picture of the palatal consonants in Karaim in principle.[12]

2.2.1.6 Dubiński (1978)

In his article devoted exclusively to the southern Karaim phonetic system Dubiński presents a slightly different picture of the distribution of [ć], [ś], [ź] and [ń] than the one shown above.

To begin with, it clearly transpires from his paper that [i] exerts a strong palatalising influence on these consonants (see Dubiński 1978: 36). Further on, when discussing (among other things) the case of [ć], [ń], [ś] and [ź], the author supports his statement with the following details:

> Diese Konsonanten unterliegen einer Palatalisierung hauptsächlich in der Umgebung von Vordervokalen.
>
> So kommt palatale *ć* vor *e* und nach *i* vor. Beispiele: *ćećek* 'Blume', *ćećeklenme* 'blühen', *ićki* 'Getränk', *ićkiri* 'Zimmer', *kićli* 'stark'. […]
>
> Der Konsonant *ń* kommt vor *e* [sic!][13] – M.N.] und nach *i* in geschlossener Silbe im Anlaut und in den weiteren Stellungen innerhalb des Wortes vor. Beispiele: *neńdi* 'welcher', *mersełeńdi* 'erhielt als Erbschaft', *ekińci* 'zweiter', *segizińci* 'achter', *k'etirińdi* 'hat sich erhoben'.
>
> Der palatale *ś* kommt vor und nach dem *e* sowie nach dem *i* vor. Beispiele: *k'eśk'en* 'abgeschnitten', *śeśk'endim* 'ich erschrak', *taśetmeśk'e* 'um nicht zu verlieren', *iśni* 'die Arbeit (Acc.)', *miśkin* 'armer', *k'emiśti* 'hat verlassen' […].
>
> Mit dem *ź* haben wir nach den Vokalen *e* und *i* zu tun. […] Beispiele: *eźge* 'anderer', *seźni* 'das Wort (Acc.)', *teźdi* 'wartete', *ezimiźni* 'uns selbst', *k'ergiźdi* 'zeigte', *ebǵełerimiźge* 'unseren Vorfahren'.

Karaim, too. So as not to exceed the predetermined limits of our study, let us redirect the reader to Stachowski (2009: 169–173), where a thorough review of Musaev's view on the consonant harmony in north-western Karaim can be found.

[12]   On page 47, for instance, we can read the following:

> Дифтонгоидный вариант э выступает в Т. диалекте корнях, а в Г. — и в корнях и в аффиксах после палатализованных согласных (в данной работе для обозначения этого рода э принят знак е): кермен [кйэр’мйэен] 'за́мок', Г. келем [кйэлэм], Т. келям [кйэлйäм] 'я иду', Г. кисиде [кисидэ] 'у человека'.

This view is unfathomable for several reasons. Firstly, what Musaev notes with an *e* is not a diphthong, but is simply a [k] palatalised in front of [e], as is usually the case in Turkic languages. Besides, it is not the "diphthongoid *e*" which appears after a palatal consonant, but the relation of cause and effect is exactly the opposite: the consonant [k] becomes palatal in front of [e], as is usually the case in the Turkic languages. Secondly, the word for 'castle' does not have the sound "[кйэр’мйэен]" either in Lutsk or in Trakai Karaim (cf. KarL. *k̓ermen* and KarT. *k̓erḿań*). The nasal [m] never becomes palatal in front of [e] in Lutsk Karaim. Thirdly, the description becomes even more odd if we take into account the fact that Musaev interprets [ˊ*a*] – in his notation [sic!] *ä* – in the KarT. word *k̓ełam* as a front [!] vowel (cf. his argumentation about the phonetic value of *ä* and the vowel harmony in Trakai Karaim e.g. on pages 46 and 50ff.). Finally, frankly speaking we do not really understand where the "diphthongoid *e*" in "Т. *кисиде* [кисидэ]" is.

[13]   Most probably a misprint. The examples referred to by the author point to a different explanation, namely: "nach *e* und nach *i*".

The rules presented here are quite complicated since, in our opinion, they were also supposed to explain such lexemes which should be treated rather as exceptions. Besides, we cannot agree with some of its parts:

Firstly, all the examples enumerated by Dubiński can be explained by Zająckowski's rule supplemented with Pritsak's addition. The only exceptions are *ćećek*, *śeśkendim* and *taśetmeśke* [all examples presented in Dubiński's transcription]. It is not, however, merely the simplicity of the rule that makes us favour it. It also seems more likely that in the words *neńdi*, *merseleńdi*, *keśken*, *eźǵe*, *seźni* and *teźdi* the palatality of the discussed consonants appears because of the influence of the palatal consonants standing after them (as a result of a regressive assimilation), than supposing that it is due to the vowel [e] standing in front of them. We must remember that [e] does not take part in progressive assimilation processes, but in regressive ones, and influences only [k] and [g] – even [ł] remains dental in front of [e]. The same is the case with [i] standing in front of [ź], [ś] and [ć] – it does not take part in progressive palatalization, either. This can easily be exemplified by the following lexemes: *eźine* 'for itself' (not *ezińe), *ezende* 'in the river' (not *eźeńde), *cembir* 'kerchief' (not *ćembir), *bicen* 'hay' (not *bićen), *ełcedim* 'I measured' (not *ełćedim), *icedłer* 'they drink' (not *ićedłer), *kisenc* 'sadness' (not *kiśeńc).[14]

On the other hand, one should not neglect Dubiński's idea of explaining the palatal [ć] and [ś] in *ćećek*, *ćećekłenme*, *śeśkendim* and *taśetmeśke* as a result of the influence of [e].[15] However, these words should be treated as exceptions. *Nota bene* they are already listed in KSB and they are also partially mentioned in Grzegorzewski (1916–1918: 254, 267).

2.2.1.7 The special status of [ʒ́]

Let us pursue our discussion with an important digression concerning the palatal [ʒ́]. It is valid to mention it here as it most probably underwent the same phonetic processes (see below) as [ć], [ś], [ź] and [ń].

The fact is that this sound is almost completely missing from the Lutsk Karaim sound system. The only example we had hitherto encountered is the word *ʒ́iǵir* 'intestines'[16] attested as ‹dzigirim› (with 1ˢᵗ singular possessive ending) in one of the poems of Sergiusz Rudkowski that we edited (see Németh 2006: 23). As far as we know, there are no examples provided for [ʒ́] either in Grzegorzewski (1903: 6–7; 1916–1918: 255) or Kowalski (1929: xli) let alone Pritsak (1959: 328) – i.e. in those works which list the sound for south-western Karaim. It is interesting to note that the sound in question is not even mentioned by Dubiński (1978: 39).[17] We do not claim that [ʒ́] was completely missing from the Lutsk Karaim dialect, but we can say with certainty, that its use was fairly limited.

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[14] The examples were taken from Németh (2006), see the morphological index attached to the work.

[15] Although regressive assimilation (*s – ś > ś – ś*) also appears probable here. Of course in the latter two examples this only concerns the first [ś].

[16] An interdialectal borrowing from KarK. *ʒ́ijer* '1. liver; 2. intestines' (KRPS 172; Levi 1996: 77: s.v. *потроха*), KarK. *ʒ́yger* '1. liver; 2. kidney' (KRPS 174; Levi 1996: 68: s.v. *печень*).

[17] It is also missing from Musaev (1964) and (1977), but these grammars, as shown above, fail to be authoritative in this matter.

2.2.1.8 Final remarks

It is our belief that, based on what we have said above, we should postulate palatal [ć], [ś], [ź], [ń] and [ź̧] in front of [i] and the palatalized [ć], [d́], [đ́], [ǵ], [ḱ], [l], [ń], [ś], [t́], [ŧ], [ź], with the reservation that the idiolectal realization of this rule might have differed. As an example of the latter phenomenon we should mention the word *tenri* 'God' (cf. 2.2.1.2), which we have also encountered as טֶינִירִי with an additional *yodh* used after *nun* noting, perhaps, palatality (see Németh 2011: 142). This means that the word might be read as *teńŕi*, thus palatal [ń] might also appear after the segment [ŕi]. Such examples should, however, be treated merely as exceptions.

It should be added that [ć], [ń], [ś] also appeared in other positions in Slavonic-origin words, especially in the diminutive forms of personal names, which is supported by the texts written in Latin script, e.g. (*Sabina →*) *Bińća*, (*Šemoel →*) *Semelćo* and the like (for further examples see e.g. Sulimowicz (2004: 147). The only (known to us) native exceptions are *ćećek* 'flower', *śeśḱen-* 'to get scared' and *taśetme-* 'to lose; to destroy'.

As far as their phonetic value goes, since the appearance of Kowalski's work there has been a consensus in the literature that all four consonants are identical to their Polish (palatal) equivalents, even though Grzegorzewski (1903: 6) writes about soft alveolar [š´], [č´] and [ž´].[18]

2.2.2 The phonetic value of /t/ and /d/ in front of [i]

A number of grammatical descriptions suggest that the pronunciation of the dental [t] and [d] in front of [i] was very similar to that of [k] and [g] in the same position, respectively. The question, however, remains of whether these complementary variants were pronounced identically or merely similarly and what was the reason for such a process. Besides, another issue that needs to be settled is the operational scope of this process.

2.2.2.1 Radloff (1893)

It was Radloff (1893: xv) who first attempted to familiarise readers with the pronunciation of [t] and [k] in front of [i]:

> ҟ ist der tonlose Explosivlaut der mittleren Zunge, also ein Palatallaut, der zwischen т und к liegt. Er tritt nur bei den Karaimen von Luzk auf und zwar in Anlaute, statt т vor i, wie ҟil statt тil, ҟiш statt тiш. Dieses ҟ ist immer moullirt […].

What makes this relation interesting is the fact that Radloff does not mention the voiced counterpart of the sound and according to his observations the phenomenon is limited only to the initial position. However, subsequent works show that such a description does not hold up under scrutiny.

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[18]   The palatal (not palatalized dental) pronunciation of [ś], [ć] and [ź] is also characteristic of the western Ukrainian dialects (see e.g. Dejna 1948: 72). Hence, this feature should be regarded as a rather expansive one.

2.2.2.2 Grzegorzewski (1903; 1916–1918)

Both the voiced and the unvoiced complementary variants of [t] and [d] have already been mentioned by Grzegorzewski (1903: 78). He refers to Radloff's observation, and makes the following remarks:

> Wenn das nicht eine akustische Täuschung ist […] so könnte man weiter gehen und in Hinblick darauf, daß in Halicz ein ebensolcher Wechsel zwischen den tönenden Lauten derselben Zungenteile zu beobachten ist, annehmen, daß dem ħ ein tönender Koordinant entspreche […], ein Mittellaut zwischen *d* und *ǵ* […], sowie daß in Halicz eine Differenzierung dieser selbständigen Laute, des tönenden und des tonlosen, eingetreten sei in die zwei gewöhnlichen Lautgruppen: *k', t'* und *ǵ, d'* […].

We can see that Grzegorzewski formulates his opinion rather cautiously, and does not want to decide on the phonetic value of /t/ and /d/ when they appeared before [i]. Moreover, he does not raise this issue in his later works. The only information we can extract from Grzegorzewski (1916–1918) is, firstly, that [t] becomes palatalized before [i] and tends to affricatize into [ć],[19] and, secondly, that the word *halidi* 'present, today's' [we note it in Grzegorzewski's transcription] was in his lifetime already being pronounced more like *haligi* (Grzegorzewski 1916–1918: 278).[20] The first statement shows that Grzegorzewski had problems identifying the sound, given that previously he had described it as a sound between [t́] and [ḱ] and not as [ć]. The latter remark, in turn, suggests that he probably heard the auditory difference between *d* + *i* and *g* + *i*.

2.2.2.3 Kowalski (1929)

Kowalski (1929: xlii–xliii) characterizes the articulation of /t/ and /d/ in front of [i] as being very similar to the pronunciation of [k], [g] in this position, or even identical to it. This assimilation is, in Kowalski's opinion, advanced to such a degree that he transcribes them with separate symbols, namely with ɣ and ɓ.

> Die Artikulationsstelle von *t'* und *d'* erscheint vor einem *i* in dem SW-Dialekt nach hinten verschoben, so daß die Lautgruppen *t'i, d'i* den Lautgruppen *ki, ǵi* sehr nahe kommen, ja sogar mit diesem identisch werden können […]. […] Die nach hinten verschobene Artikulation der Laute *t', d'* bezeichne ich mit den Zeichen ɣ, ɓ […].

Kowalski (1929: xliii, 287) provides us with a number of examples in which we see the alternate use of graphemes rendering [t] ~ [k] and [d] ~ [g] – not only in the

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[19]   See Grzegorzewski (1916–1918: 255): "*t* przed *i* palatalizuje się i ma skłonność afrykatyzowania się, przejścia w *ć*". This sentence introduces a short passage on pages 255–256, in which the author explains the *ti > ći* change in a few words. The wording and the style is, however, knotty and figurative to such a degree that we fail to fully understand it.

[20]   The chronology of this "change" is surprising as etymologically the "younger" variant (as claimed here) is the original one. The word *haliǵi* is a *-ǵi* derivative (forming adjectives; for a wider semantic field of the suffix cf. A. Zajączkowski 1932: 34) of *hali* 'now' being ultimately of Arabic origin. The word is written as הֲלִידִי in the text the author edited, *vide* p. 269 of the discussed paper.

initial, but also in the medial position.[21] Interestingly, such examples are to be found even in written manuscripts, and this, according to Kowalski (1929: xliii), points explicitly to the fact that in those texts, in which the authors use an, *sit venia verbo*, etymological notation:

> dieser Unterschied künstlich ist und in dem Sprachbewußtsein der Schreibenden nicht mehr besteht.

Additional information can be derived from a closer look at Kowalski's description. Firstly, the preponderance of examples indicates an unsettled notation of /t/ in front of [i]. There is only one such example mentioned for /d/ in this position, namely [in Kowalski's transcription] *eńbirýin* (Kowalski 1929: xliii). This fits in well with Dubiński's description that the latter phenomenon was rarer (see below), and to some degree also explains Radloff's observation. Secondly, all the sources used by Kowalski to present the phenomenon in question originate from Halich, and none of them are from Lutsk. This, however, cannot be treated under any circumstances as clear-cut proof, but merely as a supplementary observation.

2.2.2.4 Zajączkowski, A. (1931)

The only information Zajączkowski (1931) provides on this subject is that it is difficult to describe how /t/ and /d/ in front of [i] were pronounced, since they were almost identical to /k/ and /g/ in this position.[22]

2.2.2.5 Pritsak (1959)

Pritsak consistently uses the symbols introduced by Kowalski, namely *ɣ* and *ƅ*, to note every /t/ and /d/ in front of [i]. He treats these sounds as "besondere, zwischen *t'* und *k'*, bzw. *d'* und *g'* liegende Laute" (Pritsak 1959: 329) and ascribes this alternation to Ukrainian influences. How accurate this observation was will be discussed below.

2.2.2.6 Dubiński (1978)

Somewhat distinct is the view presented in Dubiński (1978: 40–41). First of all, according to Dubiński this phenomenon is far from being regular:

> Eines der charakteristischen Merkmale des Konsonantensystems im H. Dialekt ist die Alternanz und der Wechsel der Lautgruppen *ti ~ ki* und *di ~ gi*. Regelmässigkeiten konnten in dieser Hinsicht nicht ermittelt werden, obwohl diese Erscheinung von allen Forschern des H. Dialektes bemerkt wurde.

In addition, Dubiński remarks that the *ďi ~ ǵi* alternation is much rarer:

> Der Lautgruppenwechsel *di ~ gi* ist bedeutend seltener. […] Ähnliches tritt auch im T. Dialekt auf, wo *k'uńďuź ~ k'uńǵuź* 'am Tag' als Alternanz vorkommen. Die hier

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[21] Even though Kowalski (1929: xliii) states that this phenomenon occurs "in allen Stellungen", this must be treated as a figurative description, as, naturally, a prevocalic consonant cannot stand in the final position.

[22] See A. Zajączkowski (1931: 9): "Trudne do oddania jest brzmienie […] spółgłosek *t, d* przed *i*, w tym wypadku bowiem spółgłoski te są wymawiane prawie identycznie jak *k, g* […]".

erörterten Lautwechsel sollen als eine allgemeine Tendenz im Karaimischen betrach-
tet werden, die sich am deutlichsten im H. Dialekt entwickelt hatte.

The latter statement seems to be especially interesting when compared with what we
read in Kowalski (1929: 287–288). From a Trakai Karaim translation of the *Song of
Songs* made in 1889 Kowalski extracted examples for the KarT. [ď] ~ [ǵ] and [ť] ~ [ķ]
alternation in positions other than in front of [i].[23] He ascribed this phenomenon to
southern Karaim influences, saying that this kind of alternation is its characteristic
feature. However, if we take into account Dubiński's commentary, the attested al-
ternation in Trakai Karaim is not necessarily a result of the south-western Karaim
influence. This question must remain open, especially as we know that in south-
western Karaim such an alternation occurs only in front of [i].

2.2.2.7 Sounds [ŧ] and [đ] vs. [ť] and [ď]

We should remember that /t/ and /d/ in front of [i] sounded different from [ť]
and [ď]. The latter two sounds only appeared in the final position as the abbreviated
3rd person ending due to a *-tir > -ti > -ť* and *-đir > -đi > -ď* change. This difference
can be illustrated by the following sketch:

$$(-)t- + i > ŧ \; \neq \; -ť < -ti < -tir$$
$$(-)d- + i > đ \; \neq \; -ď < -đi < -đir$$

As we know from A. Zajączkowski (1931: 9), phonetically [ǵ] and [ď] were equiva-
lent to Russ. *-mь* and *-дь*. If [ŧ] and [đ] were pronounced in the same way, they
would definitely be described thus. Hence, the exact phonetic value of [ŧ] and [đ]
remains speculative. In our view, the pronunciation of these two consonants re-
sembled the phonetic value of the dorsal [ŧ] and [đ] occurring in Ukrainian dialects
(see Zilynśkyj 1979: 36 and 92). The latter ones are also often confused with [ķ]
and [ǵ] (see below).

2.2.2.8 Final remarks

The [ŧ] ~ [ķ] and [đ] ~ [ǵ] alternation appears above all in those words in which
etymologically we have /t/ and /d/, i.e. we have alternating pairs like *tis* ~ *ķis* 'tooth'
or *tis-* ~ *ķis-* 'to fall' (KRPS 323, 531), but, for instance, there is only *ķiśi* 'man'
(KRPS 323) without an alternating form **tiśi*.[24]

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[23] These examples are as follows [in Kowalski's transcription]: *ťeńriďa* ~ *ťeńriǵa* 'God (dat)',
ťuťagildań ~ *ťuťagilǵań* 'to smell (part.perf)', *kolaďalar* ~ *kolaǵalar* 'shadow (pl)', *ťoźleįdir* ~
ķoźleįdir 'to watch (praes.3.sg)', *ťulťular* ~ *ťulķular* 'fox (pl)'. There is only one example in the
discussed position, and that is to *įelpiťťiń* ~ *įelpiťķiń* 'to blow (imperat.2.sg)'.

[24] This is supported by the orthography of some private Lutsk Karaim manuscripts written in
Hebrew script, the critical edition of which was prepared by us (Németh 2011). There, the
sounds in question are in the vast majority of cases marked with the letters *teth* and *daleth*,
respectively. Thus, the consonants, which were marked with the symbols ɣ and б in Kowalski
(1929) or Pritsak (1959) were perceived as the combinatory variants of [t] and [d] rather than
those of [k] and [g]. The number of lexemes in which this alternation is evident is very small.

Then, the fragments written by Radloff and Grzegorzewski themselves indicate that the phenomenon occurred in Halich (Grzegorzewski did not work with Lutsk Karaim linguistic materials) and only partially in Lutsk, where according to Radloff it concerns only the unvoiced consonant pair. This, combined with the fact that the materials which constituted the basis for Kowalski's (1929) phonetic analysis also originated from Halich (rather sketchily perhaps but nonetheless true) leads to the conclusion that this alternation should be ascribed above all to Halich Karaim.

When we turn to descriptions of the Ukrainian dialects spoken in the analysed territories – at the same time bearing in mind among others Pritsak's laconic remark about the Ukrainian origin of this phenomenon – all the above mentioned features gain additional value. This is because there is a Ukr. dial. *t́, d́ > ḱ, ǵ* change that is typical of some south-western Ukrainian dialects (see Žylko 1958: 93–94). Thus, a Ukrainian influence is more than plausible here, and the "direction" of this change explains why the alternation in Karaim appears only in words that etymologically have /t/ and /d/ in the discussed position (no *ḱ, ǵ > t́, d́* change is encountered in these dialects). Additionally, we know that this particular process in Ukrainian was applied most consistently in front of [i], as e.g. in *t́isno ~ ḱisno* 'tightly', and in this position the pronunciation of *t́, d́* is rather dorsal (Zilynśkyj 1979: 36 and 92). However there are also less common examples of such a change in front of the continuants of *'a < *ę*, such as e.g. in *t́eśki ~ ḱėški* 'heavy', see Dejna (1957: 64–65). Moreover, the similarity between the alternation in Karaim and in Ukrainian dialects also becomes visible in Dejna's description, according to which occasionally there is almost no auditory difference in Ukrainian between these sounds (Dejna 1957: 66).

As far as the geographical range of this process is concerned, it primarily covers the Ternopil, Hutsul, Transcarpathian, Boiko and Dniestrian regions (see Dejna 1957: 67), i.e. the central and the southern territories of western Ukraine. In the Volhynia region, i.e. in the area around Lutsk, such a change only appears occasionally (see Zilynśkyj 1979: 92). This again strengthens and makes highly likely our supposition that the alternation was characteristic above all of the Halich subdialect of Karaim. Seen in this light, the rare examples of this change in Lutsk Karaim should be explained either by the articulatory influence of Halich Karaim (since contacts between these two communities were constant), or by contacts with the Ukrainian inhabitants of the territories south of Lutsk. Additionally, the phenomenon should be treated rather as an idiolectal one[25] – similarly to its idiolectal status in Ukrainian dialects, see Dejna (1957: 64). If this is true, this would be the second subdialectal difference between Halich and Lutsk Karaim caused by Ukrainian influence besides the *y > ė* sound change in front of /k/ discussed above.

The case is similar with the pronunciation of the segment /sti/. In Kowalski (1929: XLI–XLII) and later also in Pritsak (1959: 329) we read that in this segment [t] is not pronounced as [t], but as [ć]. The only similar statement in the literature is made by Grzegorzewski (1916–1918: 255), cited above, according to which [t] tends to be

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[25]   The idiolectal character of this phenomenon should also be deduced from Kowalski (1929: XLIII), where the author writes that "[…] der Unterschied zwischen *t́i, d́i,* und *ki, ǵi* im Sprachbewußtsein mancher Individuen nicht mehr besteht […]".

pronounced as [ć]. Thus, the descriptions hitherto made report this change based primarily on Halich Karaim linguistic data. As far as the Lutsk Karaim written sources go, we have not found any orthographical evidence supporting this change, even in carelessly (i.e. phonetically) written manuscripts. This can be supported by the fact that the *s + ťi > śći* change is also characteristic only of those Ukrainian dialects which were in use in, among other places, the Halich area (see Dejna 1957: 61–63). The isogloss of this feature separates the dialects used around Lutsk from those spoken in the south.

In the final analysis, it seems that the pronunciation of the above mentioned consonants was often idiolectal, a fact which appears to be supported by Kowalski's and Grzegorzewski's observations mentioned above, and could have differed in the subdialects of Lutsk and Halich.

2.2.3 The distribution of [ł] and [l]

2.2.3.1 Grzegorzewski (1903; 1916–1918)

The first observer to describe the system of liquids in Karaim was Grzegorzewski (1903: 5). He noted three liquids for Karaim used in Halich: "[l], [ł] and [ľ´]". To better understand the results of Grzegorzewski's research let us, again, cite his viewpoint *in extenso*:

> […] Sonorlauten: *n*, *m*, *r*, *ł*, *l* (dabei die 4 ersten auch mouilliert) (*l* in Verbindung *le*, *el* klingt fast wie kroatisch *l*: ich transkribiere es durch mouilliertes *ł* [*ľ´*]). [In a footnote attached to the latter sentence:] Die jüngste Generation macht zwischen diesen Lauten fast durchaus keinen Unterschied mehr: das *ľ´* klingt bei ihr beinahe oder auch ganz so wie *ł*.

The description is far from being entirely clear. As far as we understand it, Grzegorzewski postulates a dental [ł], which remains dental when surrounded by [e], unlike what is usually the case in the Turkic languages. At the same time, in Grzegorzewski's opinion, in such a position it also sounds somewhat palatalized, which he marks with an *ľ´*. Finally, there is also the alveolar [l]. Thus, based on the description quoted above, as well as on the transcription employed in Grzegorzewski's (1903) article, we can say that according to the author [l] appeared before [i], [ł] was used in front of the back vowels, and, finally, "ľ´" in front of or after [e]. Nonetheless, the exact phonetic difference between [l] and [ľ´] as well as between [l] and [ł´] cannot be determined solely on the basis of Grzegorzewski's explanation.[26] This is not disambiguated in Grzegorzewski (1917: 3) either.

This viewpoint on the distribution of the above mentioned three liquids was slightly modified in Grzegorzewski (1916–1918: 257). In the later case, namely, the

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[26] This system partially reflects the *l*-type sound system in Ukrainian dialects: (1) Grzegorzewski's "l" resembles the "weakly softened" Ukr. *l*, which appears in the Dniestrian and occasionally in the Hutsul dialects also in front of [i] (see Zilynśkyj 1979: 101), (2) Grzegorzewski's "ľ´" stands probably for an alveolar [l], and, finally, (3) Grzegorzewski's "ł" should be described as a dental liquid.

author claimed that [l] also sometimes occurs after [e] and [i], especially when followed by dental plosives. This observation is perceptive, although not entirely acceptable. Firstly, from subsequent works based on the knowledge of native speakers it clearly transpires that [l] does not occur "simply" after [e] and [i] – as is argued below. Secondly, it is not clear to us why dental plosives would palatalize a neighbouring consonant.

2.2.3.2 Kowalski (1929)

Kowalski's position on the issue is much simpler. When discussing the palatalizing feature of [i] Kowalski (1929: xli) mentions the following:

> Nur das *i* bewirkt in dem SW-Dialekt eine regelmäßige Palatalisierung der vorangehenden Konsonanten. Geht einem *i* eine aus zwei Bestandteilen zusammengesetzte Konsonantengruppe voran, werden sie meistens beide palatalisiert. Nur wenn der erste Bestandteil ein *ł* ist, bleibt er unverändert.

From this we know that Kowalski postulates only two liquids, [ł] and [l] – the latter only in front of [i]. This can be supported by analysing his transcription, where we find e.g. *ekśiklikten* 'lack (abl)', *kiłbiłer* 'to laugh (praet.3.pl)' or *śiriłebiłer* 'to be chased away (praes.3.pl)', see Kowalski (1929: 286–287).

2.2.3.3 Zajączkowski, A. (1931)

A. Zajączkowski (1931: 9) once again provides us with a different definition. According to this text [l] occurs in front of [i] as well as (unlike what we learn in earlier works) in a closed syllable, if there is a segment /ti/ or /di/ positioned after it. Besides, he remarks that [l] may also appear in front of other palatal consonants, but only as a result of careful pronunciation, exemplifying it with the word *elǵen* 'the deceased' (~ *ełǵen*)".[27]

2.2.3.4 Pritsak (1959)

In *Philologie Turcicae Fundamenta* we find almost the same information as in the previous work, namely a short statement that "*l* erscheint nur vor *i*, *ɣi* und *ɓi*" (see Pritsak 1959: 329; cf. however, also *älɓi* on page 328, which is probably a printing error).

2.2.3.5 Dubiński (1978)

In Dubiński (1978: 39–40) the distribution of [l] is explained somewhat differently, again:

> Einer getrennten Betrachtung bedarf das palatale *l*. Im H. Dialekt trifft man insbesondere das velare *ł*, dagegen das palatale *l* kommt einzig in der Umgebung des Vokals *i* vor. Beispiele: *biliwli* 'bekannt', *esitildi* 'man hat gehört', *k'eliredi* 'er kam',

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[27] In Zajączkowski's words:

> Miękkie *l* występuje przed *i* lub w zgłosce zamkniętej o ile po niej następuje *ti*, *di*. […] Czasem także przed innemi, miękkiemi spółgłoskami może wystąpić *l*, ale tylko w starannej wymowie: *elg'en* „zmarły, nieboszczyk" (obok *ełg'en*).

tiǵellik 'Vollkommenheit', *tili* 'seine Zunge (Sprache)' aber *tił* 'Zunge (Sprache)'.
Das palatale *l* kann auch sporadisch nach dem Vokal *e* vorkommen. Beispiele: *belgi*
'Merkmal', *belgiłedi* 'hat bemerkt'.

As we can see, Dubiński interprets the linguistic data in the following way: he postu-
lates the alveolar [l] "in the surrounding" of [i], probably meaning that such a shift in
pronunciation could also be a result of a progressive assimilation, as exemplified by
the word *esitildi*. A similar progressive assimilation, but after [e], would explain the al-
veolar character of [l] in the last two examples. We do not think, however, that this
would be a suitable explanation, and this is for the same reason that we rejected the
possibility of a progressive palatalization process in chapter 2.2.1.6 in the case of
[ć], [ś], [ź] and [ń] (for the argumentation see there). This can be seen e.g. in the word
tił mentioned by Dubiński, in which *l* remains dental after [i]. Additionally, if we take
a closer look at the examples Dubiński enumerates, we can see that they are all to be
explained by Zajączkowski's "definition", which appears to us to be a credible one.

2.2.3.6 Musaev (1964)

Musaev (1964: 73) does not devote much time and space to this issue. The only thing
he writes, in fact, and quite laconically, too, is:

> В Г. диалекте *л* часто в соседстве с палатализованными согласными и перед-
> ними гласными произносится твердо.

2.2.3.7 Conclusion

In our view, and as the orthography based on Polish writing used in the inter-war
period shows, the alveolar [l] appeared in Karaim in front of the segments /ti/, /di/ and
in front of [ď] and [i]. This is even more likely as we know that [i] and the two above
mentioned segments exerted the strongest palatalizing influence in Lutsk Karaim.
Nevertheless, it is important to recall the appearance of the alveolar [l] in eloquent
pronunciation in front of other palatal consonants, too, as stated by A. Zajączkowski
(1931: 9). This explains such rare attestations as e.g. the 2nd plural imperative form
kełńiz noted as "*kelniz*" in Mardkowicz (1933: 6) in place of the expected "*kełniz*".

2.3 The alveolar [č], [š], [ž] and [ǯ]

The dealveolarization of the alveolar affricates and fricatives is a widely known feature
of Lutsk Karaim (see e.g. Räsänen 1949: 173). However, this primarily concerns the
inherited vocabulary and loanwords from the older layers of the lexicon. In the case
of the younger Hebrew and Slavonic loanwords, however, the alveolar consonants
could have been pronounced in the same way as they were articulated in the donor
language, as was already mentioned by Grzegorzewski (1916–1918: 254–255). In the
latter work we read that such articulation was for some individuals quite difficult to
render. Turning to A. Zajączkowski (1931: 7) and Pritsak (1959: 328) we even found
that [š] was uttered among south-western Karaim phonemes. Nevertheless, we cannot

explain why the other sounds, namely [č], [ž] and [ǯ], were neglected by them. In Mardkowicz's dictionary for instance, we find words like [in the original writing] *czufut* 'Jew' [č-] or *szewet* 'tribe, clan' [š-] (KSB 21, 59), which would already justify treating all of these sounds equally. Probably such words gave grounds for Pritsak (1959: 328) to list additionally [č] for south-western Karaim. But in the journal *Karaj Awazy* we find the sound [ǯ] in the word *dżuwaher* 'diamond' in a Lutsk Karaim text (Rudkowski 1931: 19), thus, theoretically, even Pritsak's description is not complete. It is true that the number of such attestations is low, but nevertheless we do not see any arguments in favour of the the idea of listing only [š] or [š] and [č] in the column containing the alveolar consonants. For this reason we also enumerated them in Table 2.

2.4. The question of the fricative [χ], [h], and [ɣ] and its continuants

The system of the velar and uvular fricatives was presented for the first time in Grzegorzewski's article published in Vienna in 1903. Since then, works dealing with this topic have offered various viewpoints on this system. Below we have outlined the most important trouble spots in the discussion, again, chronologically.

2.4.1 Grzegorzewski (1903; 1916–1918)

Grzegorzewski (1903: 5) notes the following sounds in this category: the voiceless "*x, χ*" and the voiced "*ɣ (h)*", with the annotation that all of them might have their palatal equivalents ("*dabei auch mouilliert*"). Furthermore, he writes that:

> dem *x* (*χ*) entsprechende tönende Spiranten (‖ arab. غ) fehlen ganz und gar, sie sind durch ihre Divergenten […] *g, h* […] vertreten.

Such a not entirely clear notion is augmented by a footnote (Grzegorzewski 1903: 5–6) in which, additionally, the symbol "*gh*" is introduced and described as follows:

> Nur bei manchen Personen der älteren Generation, die der Schriftsprache vollkommen mächtig sind, hört man zuweilen *gh*, und zwar nur bei solchen die aus Troki (oder aus dem Oriente) stammen oder längere Zeit dort zugebracht haben; sonst hat es sich zu zwei besonderen Lauten differenziert — zu *g* und *h*, so daß in dem betreffenden Ausdrücken statt des *gh* willkürlich *g* oder *h* gebraucht wird.

Finally, Grzegorzewski (1903: 5) remarks the following – complicating even more his already barely comprehensible reasoning:

> [Aspirierter Vokalleinsatz — *h*.][28]

It is difficult to assign the correct phonetic value to some of the symbols that Grzegorzewski used here. Even his later work does not disambiguate things for us, since the description we find here contains different symbols, and reports only two sounds from this category (the voiced velar fricative rendered with *h* and the voiced uvular

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[28]   We ignore this statement in our comments below as we fail to fully understand it.

fricative noted with *γ*, see Grzegorzewski 1916–1918: 257). Besides, his archaic and somewhat bizarre style is another difficulty that has to be overcome when reading the article. Still, to clarify our opinion about Grzegorzewski's notation and his viewpoint on the system of fricative consonants discussed in this part, we have ventured to draw the following table:

Grzegorzew-ski (1903)	Its equivalent	Description	In our transcription
x	Pol. ‹ch› in *chata* 'cottage'	voiceless velar fricative	*χ*
χ	Class. Ar. ﻫ h	voiceless glottal fricative	–
h	Pol. ‹ch› in *niechże* 'may; let'	voiced velar fricative	*h*
γ ~ gh	Class. Ar. غ *ġ*	voiced uvular fricative	*γ*

Table 3. Lutsk Karaim fricatives as noted by Grzegorzewski (1903)

Interesting to note is the case of the sound noted by Grzegorzewski with *γ*. For as we see, it does not occur in his article in Karaim examples, although it is mentioned as part of the Karaim sound system (Grzegorzewski 1903: 5). We see it mentioned, in fact, only in that part devoted to the KTkc. *-Vγ > -Vu̯* change (Grzegorzewski 1903: 29ff.), which took place in Karaim and serves as one of the criteria used to classify the Turkic languages (see e.g. Tekin 1991: 13). The fact that this sound should be equated with what Grzegorzewski notes as *gh* remains hidden from the reader except on page 78 of the 80-page long article, where in footnote 32 (attached to the word *kiri* 'alive' on page 69) we read in a completely different context the following:

> […] ebenso wie sich der ursprünglich selbständige Laut *gh* (γ ‖ arab. غ) zu *g* und *h* differenziert hat.

The voiceless glottal fricative *χ*, which appears in Grzegorzewski's work only in Persian and Arabic loanwords, is not mentioned in the subsequent works, except in Musaev's (1964) grammar (see below).

It is worth noting that according to Grzegorzewski the voiced uvular fricative [ɣ] was already on the verge of disappearing from Halich Karaim at the very beginning of the 20th century and was scarcely used even by the older generation. Furthermore, it was only present in the pronunciation of those elderly people who had their roots in the community of Troki or the Crimea. And, indeed, we can hear this even today in Troki Karaim in the recordings made by É.Á. Csató-Johanson[29]. Finally, as we quoted above, in Grzegorzewski's view it developed into [g] ~ [h].[30]

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[29] *Spoken Karaim. Multimedia CD-ROM* prepared by Éva Ágnes Csató-Johanson in cooperation with David Nathan in 2002.

[30] This was confirmed in Grzegorzewski (1917: 3).

2.4.2 Kowalski (1929)

This problem is not discussed by Kowalski (1929). He merely mentions [h] in a slightly different context, namely when discussing the changes the final [k] and [k̇] underwent in the intervocalic position (on morphologic boundaries). This observation can be presented as follows (Kowalski 1929: xlii):

$$-Vk̇ + V > -VḣV-$$
$$-Vk + V > -VgV- \sim -VhV-$$

2.4.3 Zajączkowski, A. (1931)

In his grammar Zajączkowski does not devote too much time and space to the fricatives in Karaim either. He simply mentions "*ch*" and "*h*" in a table as velar voiceless and voiced consonants (see page 9 of his work). In addition, he remarks that [k] changes into [h] when surrounded by back vowels and into [ǵ] in a front vowel environment, see A. Zajączkowski (1931: 10). Thus, we can reconstruct the following view:

$$-Vk̇ + V > -VǵV-$$
$$-Vk + V > -VhV-$$

2.4.4 Pritsak (1959)

Pritsak (1959: 328) enumerates in this group "χ, γ, γ́" as velar consonants. He also presents the changes in which the final [k] and [k̇] take part in the intervocalic position, although, again, somewhat differently than had been done before him:

$$-Vk̇ + V > -VǵV- \sim -VḣV-$$
$$-Vk + V > -VgV- \sim -VhV-$$

2.4.5 Musaev (1964; 1977)

The system Musaev (1964: 71–72) presents is "somewhere between Grzegorzewski and Zajączkowski". He introduces three fricatives in this group: "*x*", "*ʁ*" and "*h*". The first one, "*x*", is a velar voiceless fricative, i.e. [χ] in our transcription. The "*ʁ*" is considered to be its voiced counterpart, i.e. [h] in our transcription. The latter sound, according to Musaev (1964: 71), also appears as a result of a [k] > [h] change in the intervocalic position, which, consequently, seems to be a simplified description of the process discussed by Kowalski, Zajączkowski an Pritsak. The last one, the sound noted as "*h*" is, according to Musaev (1964: 72), a glottal voiceless fricative – i.e. the same that was noted by (Grzegorzewski 1903: 5) with the Greek letter χ. In Musaev's view "*h*" appears only in loanwords.

This description is repeated – although in a much more concise, slightly different and somewhat less comprehensible way – in Musaev (1977: 12). It remains, however, unclear to us why Musaev (1977: 13) claims that the (extinct) uvular plosive "*къ* (*q*)" was the velar counterpart of the fricative (*спирант*) "*гъ*". He also mentions that:

> попадая в интервокальное положение, звук *гъ* спирантизуется и приближается к проточному звуку *h* […],

which gives rise to the question of how can a fricative become (more?) fricative. Moreover, he lists native examples with "*h*" (Musaev 1977: 13), although in his previous grammar he claims that it appears only in loanwords (Musaev 1964: 72). The author must have confused the sound "*ɣ*" from his first work with the uvular plosive "*ɣъ*" introduced in his short grammar from 1977.[31] The plosive feature of the sound "*ɣъ*" seems to be corroborated by Musaev's (1977: 13) other statement that:

> Глубокозаднеязычный звук *гъ* в обоих диалектах произносится гораздо тверже, чем русское *г* в слове гора.

2.4.6 Dubiński (1978)

Dubiński writes about two consonants belonging to the discussed group: a velar fricative "*x*" and, surprisingly, a "guttural *γ*". The term "guttural", however, is most probably used here in the broad sense encompassing postpalatal, velar and uvular sounds in the older German linguistic terminology (see e.g. von Essen 1979: 75) and refers, in fact, to a voiced velar fricative. The sound in question was described by the author while discussing the change of the final -*k* in the intervocalic position (Dubiński 1978: 42):

> In der Umgebung den Hintervokalen geht *k* in das stimmhafte gutturale *γ* über. Dagegen ist der Zustand im Falle von Vordervokalen unbeständig. Hier wechselt *k* in *g* oder vereinzelt auch in *γ* über. Regelmässigkeiten konnten in dieser Hinsicht nicht ermittelt werden.

Thus, the following sketch can be set out here:

$$-V\acute{k} + V \; > \; -V\acute{g}V\text{-} \sim -V\acute{h}V\text{-}$$
$$-Vk + V \; > \; -VhV\text{-}$$

2.4.7 The palatal variants

As we already know, Grzegorzewski (1903: 5) was the first person who also postulated the palatal [χ́] and [ħ́] for south-western Karaim. This has only been partially reinforced in later works, given that Pritsak (1959: 328) mentions only [ħ́] and remains silent about the other sound. Turning to Kowalski (1929) we cannot find words with the sound [χ] in front of [i] – merely [h] in front of [i], which is noted – similarly to what we can see in Pritsak (1959) – with *ɣ́*. The lack of [χ] in this position as an example in these works is obviously due to the fact that such a segment is unusual both for Turkic and Slavonic phonotactics.[32]

   Even though later works do not support it, Grzegorzewski's idea must not be entirely neglected in light of the strong palatalizing influence of [i]. We must also remember that the vast majority of Karaim written sources and a number of scholarly works do not note any palatality in front of [i].

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[31] Let us only mention that none of the other authors mention the uvular plosives for Lutsk Karaim.

[32] In KRPS (p. 602) for instance, in the initial position we only find this group of sounds in the KarL. word *χiʒet* 'riddle'. As far as we know this is the only example for the segment [χi] in KRPS.

2.4.8 Conclusion

At the outset let us summarize in a table the system of fricatives as outlined in the above presented works:

Grzegorzew- ski (1903)	Kowalski (1929)	A. Zając- kowski (1931)	Pritsak (1959)	Musaev (1964)	Musaev (1977)	Dubiński (1978)	Description & transcription
x	*χ*	*ch*	*χ*	*x*	*x*	*x*	voiceless velar fricative (χ)
χ	–	–	–	*h*	*h*	–	voiceless glottal fricative
h	*h*	*h*	*γ*	*ɛ*	*ɛъ* [(?)]	*γ*	voiced velar fricative (h)
γ ~ gh	–	–	–	–	–	–	voiced uvular fricative (ɣ)

Table 4. System of fricatives in Lutsk Karaim as presented by different authors

The descriptions are far from being consistent on this matter. The most conspicuous peculiarity is the postulating of a voiceless glottal fricative by Grzegorzewski and Musaev. Since the writing systems used for Karaim do not distinguish between the two voiceless fricatives (*ch* performs this role in Latin script, *x* in Cyrillic and *cheth* (ח) in Hebrew script), we cannot say anything about their distribution with certainty. This is also because of the fact that in the Persian and Arabic loanwords, in which the voiceless glottal fricative occurs (according to the two authors), the corresponding Arabic and Persian sounds are adopted on Karaim ground in different ways – both by voiced and voiceless fricatives. This can be illustrated by tracing back the reflexes of, for instance, the following consonants: Ar. ح *ḥ* (fricative, pharyngeal, voiceless), Ar. ع ʿ (fricative, pharyngeal, voiced), Pers. خ *x* (fricative, uvular, voiceless), Pers. ﻩ *h* (fricative, glottal, voiceless) and the Pers. غ *ġ* (plosive, uvular, voiceless). The examples have been collected on the basis of W. Zajączkowski (1961):

Ar. ح *ḥ* > KarL. *χ ~ h*: Ar. حجرة *ḥuǧra* 'room, chamber' ≫ KarL. *χuʒura* 'room, chamber; bureau' vs. Ar. حيوان *ḥayawān* 'animal' ≫ KarL. *hajvan* 'animal' (see Wehr 1952: 142; 198, s.v. حی)
Ar. رحمة *raḥma* 'mercy' ≫ KarL. *raχmet* 'mercy, charity' vs. Ar. لوحة *lawḥa* 'signboard' ≫ KarL. *ɫevha* 'signboard, table' (see Wehr 1952: 299, s.v. رحم; 786)
Ar. ع ʿ > KarL. *χ ~ h*: Ar. قعره *qaʿra* 'pit' ≫ KarL. *kaχra* 'hall' vs. Ar. ساعة *sāʿa* 'hour' ≫ KarL. *sahat* 'hour' (see Wehr 1952: 696, s.v. قعر; 402)

Pers. خ *x* > KarL. *χ ~ h*: Pers. خاج *xāǧ* 'cross' ≫ KarL. *χač* 'cross' vs. Pers. خرمن *xar-man* 'harvest' ≫ KarL. *harman* 'threshing machine' (see Steingass 1892: 437, 456–457)

Pers. ه *h* > KarL. *χ ~ h*: Pers. گناه *gunāh* 'sin, crime' ≫ KarL. *gineχ* 'sin' vs. Pers. پادشاه *pādšāh* 'king' ≫ KarL. *patsah* 'nobleman, dignitary' (see Steingass 1892: 1097, 229)

Pers. غ *ġ* > KarL. *χ ~ h*: Pers. باغچه *bāġča* 'garden' ≫ KarL. *baχca* 'garden' vs. Pers. كاغد *kāġad* 'paper, letter' ≫ *kahyt* 'paper' (see Steingass 1892: 148, 1006)

Let us also sum up the case of the final -*k*. In the table below we compared the views on the changes it underwent in south-western Karaim when followed by a suffix with an initial vowel (we cannot be sure about Musaev's and Grzegorzewski's positions on this matter).[33]

KOWALSKI (1929)	A. ZAJĄCZKOWSKI (1931)	PRITSAK (1959)	DUBIŃSKI (1978)
-Vḱ + V > -VȟV-	*-Vḱ + V > -VǵV-*	*-Vḱ + V > -V$\frac{h}{g}$V-*	*-Vḱ + V > -V$\frac{h}{g}$V-*
-Vk + V > -V$\frac{h}{g}$V-	*-Vk + V > -VhV-*	*-Vk + V > -V$\frac{h}{g}$V-*	*-Vk + V > -VhV-*

Table 5. The development of /-k/

We believe that the description of this process differed depending on the articulatory habits of the corresponding linguistic informants. Thus it is very likely that the use of [g] and [h] in this position was highly idiolectal.

In addition, the pronunciation of these alternating variants was, in our view, connected with the case of the continuants of the uvular [ɣ]. It is our belief that the final -*k* first changed into -*ɣ*- in the intervocalic position and, subsequently, as already reported by Grzegorzewski, this sound underwent, more or less at the beginning of the 19th century, a [ɣ] > [g] ~ [h] sound change. Establishing the exact chronology and distribution of these consonants is, however, an impossible task, in the first place because all of these sounds, namely [ɣ], [g] and [h], could have been denoted in older texts with the same letter *ghimel* (ג). On the other hand, if the letter *he* (ה) or *ghimel* with a macron (ḡ) was written in older manuscripts to render the sound in this position, the proper reading might be both [ɣ] and [h]. Hence, also in this case we cannot establish its exact phonetic value.

Based on the philological evidence, however, we can say that Lutsk Karaim in the 19th century exhibited a [g] ~ [h] alternation in place of the original uvular [ɣ] solely in a back-vowel environment. In a front-vowel environment, above all in front of [e], we only have *ghimel* noted in this place – the letters *he* and *ghimel* with a macron, which would unambiguously point to [h] or [ɣ], never occur in this position.

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33   Worth mentioning is the fact that these descriptions, where applicable, also differ regarding which of the alternating variants was the more frequent.

This fact is supported by the texts recorded in Latin script, good examples being the dative case suffix and the perfect participle markers. This is because in the older text the dative case suffix variants are *-ga ~ -ha ~ -ǵe* used after vowels and voiced consonants and *-ka ~ -ǩe* attached to voiceless coda. The same is the case with the perfect participle suffix, namely we have *-gan ~ -han ~ -ǵen* attested after a voiced stem ending and *-kan ~ -ǩen* after a voiceless stem ending. This state is confirmed by the vast majority of texts published in Latin script in the interwar period, although a small number of them exhibit an *-he* and *-hen* ending, as is noticeable, for example, in the words *połełerhe* 'to the fields' (Rudkowski 1939: 9) or *isihen* 'chilled, freezing cold' (Rudkowski 1932: 14, in original writing). The considerably small number of the latter kind of attestations combined with the evidence provided from the older texts written in Hebrew script suggest that the latter two variants occurred in Karaim later, probably by way of analogy with a set of suffix variants occurring in a back-vowel environment.

The following sketch aims to recapitulate what we said above (A = back vowel; E = front vowel):

$$-Ak- + A- \ > \ -A\gamma A- \ > \ -AgA- \sim -AhA-$$
$$-Eǩ- + E- \ > \ -EǵE- \ > \ -EǵE- > -EǵE- \sim -Ehe- \sim -Eḣi-$$

2.5. The question of the glide [u̯] and the labiodental [v]

There is likewise a lack of a general consensus as far as the distribution of the labiodental [v] and the glide [u̯] is concerned. The phonetic value of [u̯] has been debated and described in different ways. Below we take a brief look at what grammarians have hitherto written about this matter.

2.5.1 Grzegorzewski (1903; 1916–1918)

At the very beginning of his early work Grzegorzewski (1903: 5) presents the Halich Karaim phonetic system, in which he distinguishes between a "Geräuschlaut *v*" and a "Halbvokal *w*". It is, however, difficult to determine the distribution of these two sounds based on his description, because on the one hand he delivers only a fragmentary explanation, mentioning merely the development of the word-final *-Vγ* into *-Vu̯* in Halich Karaim.[34] On the other hand, however, from the enumerated examples of Persian or Slavonic borrowings it follows that these sounds were adopted on Karaim ground in a highly irregular fashion. This can be illustrated by the following [in Grzegorzewski's transcription]:

Pers. و *v* > KarL. *v ~ u̯*: Pers. گاور *gāvur* 'infidel' ≫ KarH. *g'avur* id. vs. Pers. ویران
                                           verān 'ruined, depopulated' ≫ KarH. *veren ~ weren* id.
                                           (see Steingass 1892: 1073, 1483; Grzegorzewski 1903: 14,
                                           18, 54)

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[34]   See Grzegorzewski (1903: 29; 1916–1918: 262–263). Berta (1994: 168–170) presents the entire
       Kiptchak system as inherited in Karaim, where the author postulates a labiodental [v] in
       word-final position.

Pol. *v* > KarL. *v ~ u̯*:   Pol. *więc* 'thus' ≫ KarH. *v'enc* id. vs. Pol. *bawić* 'to play' ≫ KarL. *bau̯cet-* id. (see Grzegorzewski 1903: 23, 30)

Additionally, we cannot be entirely certain if the symbols "u̯" and "w" refer to the same labial glide. Such an interpretation seems to be the most probable interpretation.

2.5.2. Kowalski (1929)

Kowalski (1929) devotes little attention to the question of these sounds in Lutsk Karaim. The only relevant information we can find in this case is that:

> Der labiodentalen Spirante *v* der NW-Mundart entspricht in der SW-Mundart der Halbvokal *u̯*. (Kowalski 1929: xliv)

The south-western Karaim fragments cited by Kowalski of course support this statement: the symbol [u̯] is noted consistently, also e.g. in the word *u̯eren* 'ruined, depopulated' (see Kowalski 1929: 286) mentioned by Grzegorzewski as "*veren*" ~ "*weren*". The only hint that would suggest that Kowalski postulated a labiodental [v] for south-western Karaim in loanwords is the word *vinadan* 'fault (abl.)' < Pol. *wina* 'blame, fault', see Kowalski (1929: 288).

Kowalski's description of these sounds in Trakai Karaim might, in fact, shed valuable light on the possible situation in Lutsk. This is because in two places Kowalski emphasizes that the pronunciation of the labiodental [v] is above all characteristic of the younger generation. In his view:

> Doch findet man *u̯* als individuelle Aussprache, namentlich bei Leuten aus der älteren Generation auch in der NW-Mundart. (Kowalski 1929: xliv);

> *v ‖ u̯*. Die ältere Generation spricht halbkonsonantisches *u̯* aus, wo man bei der jüngeren Generation ein labiodentales *v* hört. Ich schreibe überall *v*. (Kowalski 1929: lxxiv–lxxv).

We can argue that in the late twenties the pronunciation of [u̯] as a glide gradually disappeared in north-western Karaim and gave place to the labiodental articulation. This also concerned the final position – where the glide [u̯] developed during the already mentioned vocalization process of the KTkc. *-γ* (Kowalski 1929: xxxi) – as transpires from Kowalski's field work. We will return to this description when summing up the conclusions in 2.5.7, and compare it with the situation in Lutsk Karaim.

2.5.3 Zajączkowski, A. (1931)

In a table listing the south-western Karaim consonants A. Zajączkowski (1931: 9) describes a sound noted with a "w" as a voiced "labial" one. This information, however, is not of any use to us, as in his work this term is applied both to labiodental and labial consonants – the phonemes [f], [p] and [b] are in the same group. The fact that double-u is used in this work is obviously due to the influence of Polish orthography – it does not have any additional, linguistic sense. The only remark which would enable us to reconstruct, although very cautiously, Zajączkowski's view is that

he compared the Karaim consonants with their Polish counterparts and stated that they are, in general, pronounced in the same way as in Polish, the only consonants which would need further explanation being the palatal consonants.[35]

2.5.4 Pritsak (1959)

Pritsak (1959: 328) does not note the labiodental [v] at all when discussing the set of consonants existing in south-western Karaim – he classifies "w" as a "Halbvokal". Nevertheless, at the same time he notes "v" in the Slavonic examples he enumerates throughout his article. Thus, he probably distinguished between labiodental [v] and the glide [u̯] postulating a [v] in Slavonic, above all Polish and Russian, loanwords.[36]

2.5.5 Musaev (1964; 1977)

In his grammars Musaev (1964: 69; 1977: 14) mentions the bilabial "β" and labiodental [v]. In his view the latter appears in loanwords only (he mentions a Hebrew, a Russian and a Persian example). Therefore, he does not postulate a glide, but rather a bilabial consonant instead. At the same time, similarly to Kowalski (1929), he remarks that the bilabial "β" is often pronounced labiodentally among younger speakers.[37] Noteworthy is the fact that his description does not clarify whether what we read in this fragment is valid for both north-western and south-western dialects or only for one of them. Probably, since he does not specify this, it concerns both dialects. One must, however, bear in mind the fact that the vast majority of materials constituting the base of Musaev's grammars originated from present-day Lithuania.

2.5.6 Dubiński (1978)

Finally, Dubiński (1978: 36) provides us with an additional piece of information, saying that the glide [u̯]:

> erscheint vor allem in der Umgangssprache, dagegen in der Schriftsprache wird er selten vermerkt. Im T. Dialekt tritt in gleicher Stellung das labiodentale *v* auf.

This information seems to be especially important. Therefore, we should add some comments to it in the conclusions below – combining it with Kowalski's observation.

2.5.7 Conclusion

To sum up, we see that various authors present slightly different views on this subject, while the amount of reliable information is scant. Since none of the writing

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[35] See Zajączkowski (1931: 9):

> Spółgłoski w karaimskim wymawia się naogół podobnie jak ich odpowiedniki w języku polskim. Szerszego omówienia wymagają spółgłoski miękkie (palatalne): *ć, d', g', k', l, ń, ś, t', ź.*

[36] Still, we can find examples that make this notion a little less clear: even though he notes rather consistently [v] in Slavonic loanwords (as e.g. in the Ukr. *-ovyj* suffix, see Pritsak 1959: 330), we can find examples, such as "mäläχuwna" 'queen' (with the Pol. *-ówna* [Pol. *-v-*] suffix), in which Pritsak notes "w" and mentions a Kar. "-uwna" suffix. The question remains open as to whether the glide appears in the latter case under the influence of the labial [u].

[37] This observation is surprising as it suggests that the generation that was considered to be younger in Kowalski's time is still the younger generation in Musaev's time – i.e. four decades later.

systems used by Karaims distinguished between these sounds, we cannot go any further based only on philological evidence. The opinions we have presented here can be summarised in the following table:

	Grzegorzew-ski (1903; 1916–1918)	Kowalski (1929)	A. Zającz-kowski (1931)	Pritsak (1959)	Musaev (1964; 1977)	Dubiński (1978)
labiodental [v]	+	+ (?)	+ (?)	+ (?)	+	+
bilabial [β]	–	–	–	–	+	–
glide [u̯]	+	+	?	+	–	+

Table 6. The question of the glide [u̯], the labiodental [v] and bilabial [β]

As we can see, Musaev (1964; 1977) is the only scholar who clearly refutes the opinion that the [u̯] in south-western Karaim was a glide and claims it to be a bilabial consonant instead. We cannot be sure about Zajączkowski's view as the terminology he uses is ambiguous. The existence of the labiodental [v] is confirmed by three authors.

It seems that there were two different tendencies in western Karaim. On the one hand, in north-western Karaim the labiodental [v] at the beginning of the 20th century was characteristic of the pronunciation of the younger generation as opposed to the glide [u̯], which was pronounced only by what was then the older generation, see Kowalski (1929: lxxiv–lxxv). Thus the glide was about to disappear. On the other hand, in the south-western dialect, as Dubiński (1978: 36) reports, the glide was still in use in the colloquial language and gave way to [v] only in the literary language.

Such a picture prompts the conclusion that we should treat such a divergence as a result of different external influences. Namely, in the northern dialect the disappearance of the glide should be put down above all to Russian and Polish influences, while in Lutsk and Halich the preservation of the glide must have happened as a consequence of the wide use of this sound, in certain positions, in the Ukrainian dialects (cf. e.g. Dejna 1957: 74ff.). Finally, the fact that the labiodental [v] became dominant in literary south-western Karaim can be explained by the higher status of Polish and Russian in the territories in question (see e.g. Kurzowa 1985: 29–30).

Thus we can say that at least for the period encompassing the end of the first half and all of the second half of the 19th century, as well as in the initial decades of the 20th century, i.e. for the period covered by the grammatical descriptions, both sounds were present in the south-western Karaim used in Lutsk. The use of the semivocal [u̯] was still widespread at the beginning of the 20th century, as is also testified by Dubiński (1978), i.e. the latest work based on research conducted with the assistance

of south-western Karaim native speakers (both from Lutsk and Halich). We are afraid, however, that the question as to the exact distribution of them will remain unanswered since the glide [u̯], the labiodental [v] and even the bilabial [β] – which would explain Musaev's opinion – were used interchangeably in the western Ukrainian dialects even in the same idiolect, as was reported in Zilynśkyj (1979: 81–82). Even though the glide and the bilabial sound were replaced with [v] in all positions, except in front of vowels, this was merely a tendency.

The glide could have appeared in Karaim in the word-final position due to two different processes: (1) as a continuant of the above mentioned KTkc. -*γ*, thus as the outcome of an indigenous process, and (2) as an influence of the irregular articulation of the sound noted with ‹в› in Ukrainian. This would, in fact, explain Pritsak's and Grzegorzewski's inconsistent notation, i.e. the transcription of the suffixes -*uu̯na* vs. -*ovyj* and *v́enc* vs. *bau̯cet-* (see above).

3. Final remarks

The foregoing discussion attempted to explain to the reader that some phonetic features of Lutsk Karaim remain debatable. The differences between the juxtaposed grammatical descriptions arise not only from different observations, but are probably also due to the different pronunciation of the informants with whom the authors of the presented works cooperated. Finally, as we argued above, the pronunciation of Karaim as used in Lutsk and Halich was, in all probability, not the same. The diverse Slavonic (Polish, Russian and Ukrainian) influences which gained strength in the 19th century lead to articulatory and subdialectal differences. Moreover, the territories in which the Halich subdialect of Karaim was spoken remained under the influence of the Ukrainian Dniestrian dialect, while Lutsk was in contact with some transitional dialects exhibiting features lying between the south-western and northwestern (Polissian) dialects. Despite the latter, these two Karaim subdialects were, and still are, usually treated in the grammatical descriptions as one homogeneous dialect. Of course, to a certain degree this is more than reasonable, but one must bear in mind that the differing historical and linguistic backgrounds could have resulted, and apparently did result, in different linguistic features.

4. Abbreviations

abl. = ablative; **acc.** = accusative; **Ar.** = Arabic; **conv.** = converb; **dat.** = dative; **dial.** = dialectal; **gen.** = genitive; **imperat.** = imperative; **Kar.** = Karaim; **KarK.** = Crimean Karaim; **KarL.** = Lutsk Karaim; **KarT.** = Trakai Karaim; **KTkc.** = Kipchak Turkic; **part.** = participle; **perf.** = perfect; **Pers.** = Persian; **Pol.** = Polish; **poss.** = possessive; **praes.** = *praesens*, present tense; **praet.** = *praeteritum*, simple past tense; **Russ.** = Russian; **Ukr.** = Ukrainian; **Uyg.** = Uyghur.

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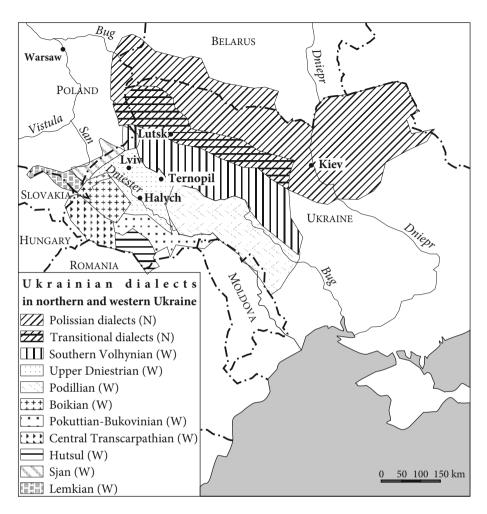
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Map 1. Ukrainian dialects in northern and western Ukraine.
        Based on Zilynśkyj (1979: 202; facing page)