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## Finnish Romani Phonology and Dialect Geography\*

### Abstract

In this paper, I will provide a short sketch of the Finnish Romani phonology, including the vowel system, the consonant inventory, phonotactics, the most crucial phonological processes, syllable structure, and to some extent, the suprasegmentals. Moreover I will present some guidelines of the dialect geography. The focus is also on the influence of the contact languages on the phonological structure of Finnish Romani, in particular the Finnish effect that manifests itself especially in the form of several articulatory reduction rules. The paper is mainly based on a 140,000-word corpus of Finnish Romani, collected by the Research Institute for the Languages of Finland, mostly during the years 2000 and 2001.

### 1. Introduction

This sketch will present the phonological system of Finnish Romani and some guidelines of the dialect geography. Phonology is the area, in which most of the known geographical and idiolectal variation occurs. Traditionally, the sub-dialect division of Finnish Romani has been mainly based on criteria such as the fronting of the vowel /a/, the substitution of /x/ for the original /ʃ/ and the treatment of the underlying affricate /dʒ/, which are discussed in this paper. The influences of Finnish and other contact languages have been quite strong on the phonological system. However, the degree of the Finnish effect varies a lot from speaker to speaker, some being more conservative than others.

Romani is an Indo-Arian language spoken outside of India. Finnish Romani belongs to the Northern dialect branch of Romani. The nearest related dialects are the British, Sinti–Manush and Polish–North Russian–Baltic Romani dialects (Bakker & Matras 1997). Today, it is estimated that there are approximately 10,000 Finnish Roma living in Finland and some 3,000 in

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Sweden. The Finnish Roma are principally considered bilingual, as they have today far better language skills in Finnish than in Romani. From 1950's, Finnish Romani has been subject to a considerable degree of attrition, so it is unknown how many of the Roma actually master or use the language. The acquisition of Romani does not any more take place in childhood, but gradually as Roma children are introduced into the life and activities of adulthood, or through school instruction. Conscious revival efforts have been made during the three last decades, including increasing the coverage of the school instruction, production of new textbooks, and standardization.

The Roma have been living in Finland for about 450 years. The earliest documentary evidence of the Roma is from the Åland islands (on the West coast) in 1559, but there may have been already earlier groups that had quietly moved to the Eastern parts of Finland. The phonology and the syntax of many Roma are influenced by Finnish, while the Finnish Romani morphology is still quite intact. The lexicon contains many Scandinavian (mostly Swedish) items, but only a few Finnish ones, presumably due to the secret language functions of Romani (cf. also Leiwo 1999).

Finnish Romani has a long research tradition, starting from Ganander's prize essay from 1779. Especially the lexicon has interested many amateur philologists of the 20<sup>th</sup> and 21<sup>st</sup> century, such as Arwidsson, Kemell, Reinholm, Jürgen-Schmidt, Jalkio and Temo, but also professional linguists. The early data collected by Arwidsson, Kemell, Jürgen-Schmidt and Reinholm were included in Thesleff's (1901) Romani-German dictionary which is one of the most famous studies of Finnish Romani. The wordlists by Oskar Jalkio, Axel Kronqvist and Yrjö Temo exist as manuscripts that are currently owned by Romano Missio and the Research Institute for the Languages of Finland. Today, the state of the Finnish Romani lexicography can be considered more than satisfactory, since modern Romani-Finnish-English (Koivisto 1994) and Finnish-Romani (Koivisto 2001) dictionaries are available. Other areas of research, on the other hand, lack this kind of tradition. Only the phonology is by now quite well known (e.g. Leiwo 1970; Valtonen 1968; Granqvist 1999a, 1999b etc.). Serious research needs still to be conducted on the morphology. The syntax and semantics are relatively unknown (however, short sketches on morphosemantics and syntax will be included in the grammar). A few books discussing the structure of Finnish Romani have already been published in Finnish, but these are rather textbooks for schools, with a normative character. No descriptive grammar, for instance, has been published for the scientific public. Until now, there are only three scientific monographs written, one

licentiate thesis (Valtonen 1968) and two MA theses (Brandt-Taskinen 2001 and Pirttisaari 2002). Moreover, a small descriptive grammar is currently being prepared (Granqvist *forth.*).

Little is known on the sub-dialects of Finnish Romani, although the existence of a dialect division was recognized as early as in Ganander's prize essay in 1779. Most of our current knowledge on the sub-dialects we owe to Valtonen (1968), who divides Finnish Romani into two main sub-dialects, the Eastern and the Western, and provides a long list of phonological phenomena characteristic to the sub-dialects, as well as a few sub-dialect-specific lexical items. However, there has been no systematic study on the geographical extent of the phenomena. In this paper, I will present the isoglosses for three main variables of Finnish Romani dialect geography, i.e. the fronting of /a/ before a front vowel, retaining the original /ʃ/ and the treatment of the underlying voiced affricate /dʒ/.

The theoretical framework of this paper is partly based on the original generative phonology (Chomsky & Halle 1968). However, underlying forms are adopted very cautiously and only if there a clear diachronical or paradigmatic motivation, because strong criticism has been expressed by many scholars such as Lass (1985: 211–4) and Linell (1979) against abstractness of the generative phonology.

The main source material for this paper is a large (140,000 words) spoken Romani corpus available at the Research Institute for the Languages of Finland. Most of the tape-recordings were carried out by Mrs. Hellevi Hedman-Valentin during the years 2000 and 2001. The participant observation method is used for the tape-recordings. A few tapes are older, from 1995. These were recorded by Mr. Juhani Pallonen (the Research Institute for the Languages of Finland) during an old Roma language seminar. On the tapes from 1995, Mrs. Miranda Vuolasranta and Mrs. Tuula Åkerlund, both Roma themselves, interviewed three elderly Roma women, born in 1920, 1925, and 1928.

The interviews were transcribed from the tapes partially by Kimmo Granqvist and partially by Mrs. Hellevi Hedman-Valentin. The transcription used was quite broad, as the aim was to provide material for lexical and syntactic studies mainly.

The interviewees are (or have worked as) teachers of Romani, with good skills of the language. The interviewees used an elaborated and fairly formal code, which was practically monolingual (primarily Romani). The interviewees, 89 persons between 16 and 87 years of age from 32 locations all

over the country, used a more casual code and provided a good bilingual material that shows much of code-switching. Although most interviewees have a relatively good proficiency in Finnish Romani, in the material there are several indications that Finnish is for them the better known language (perhaps dormant bilingualism). The question of language proficiency is essential, because in Finland the use of Romani has been gradually degrading. Kopsa-Schön (1996: 44) states that only the elderly Roma (appr. over 65 years of age) were able to communicate fluently in Romani. The middle-aged (32-64 years) Roma still showed satisfactory skills, but the youngest (under 31 years) she interviewed did not know the language any more.

## 2. Vowels

### 2.1. Simple vowels

Finnish Romani has eight vowel phonemes /ɑ e i o u y æ œ/ and possibly a švarabakhti vowel phoneme. The five vowels /ɑ e i o u/ are generally inherited in Romani. Valtonen (1968: 98) suggests that the contact with Hungarian added the rounded front vowels /y œ/, while /æ/ was probably borrowed later from the Scandinavian languages. The vowels /y œ æ/ are mainly found in a group of Scandinavian and Germanic loan words, such as /lyœrdæ/ 'Saturday' < Scand. *lördag*, Sw. *lördag*, /hyœg/ 'high' < Sw. *hög* etc., very rarely in older layers of the lexicon.

As indicated in map (1), in the most part of the country, /ɑ/ tends to be realized as [æ] in particular before /i/, e.g. /dɑi/ 'mother' → [dæi], /tʃɑi/ 'girl' → [tʃæi]. This resembles many old Vlach dialects spoken in Russia that have forms like [dei], [tʃei] (cf. Čerenkov 2002).

The vowels /e i/ alternate to some extent; the following examples are from Valtonen (1968: 103-4): *stillar* ~ *stellavā* 'to put', *pārnēsa* ~ *pārnīsa* 'pillow', *čik* ~ *ček* 'something, anything'.

The švarabakhti vowel occurs in the same areas as in the Finnish dialects. The švarabakhti vowel may be inserted between /l/ and a consonant, like in Finnish, but also between /r/ and a consonant, so that for instance the underlying /gulvɑ/ 'floor,' /kurko/ 'holy; Sunday' and /merknoš/ 'mark' surface as [kulv̥uɑ], [kur̥ko] and [mer̥knoš].

Phonetically the Finnish Romani vowels sound very alike the Finnish ones. However, no systematic study has been conducted until now to confirm or deny this.

All vowels today occur as both short and long. The vowel quantity is distinctive in Finnish Romani, which can easily be seen by comparing the lexical items /bɑr/ ‘mark’ and /bɑɑr/ ‘stone’. Unlike in Finnish, the functional load of the vowel quantity is not very strong, since especially in stems, the quantity is mostly predictable from syllable structure (see 5 and 6). In many cases, the vowels of initial syllables might be analyzed as being unspecified for quantity. There are also cases of free variation, such as /bɑro/ ~ /bɑɑro/ ‘big’, /sɑvo/ ~ /sɑɑvo/ ‘such’, and a few cases in which the vowel quantity is rather syntactically conditioned; consider the examples /dolɑ sɑɑki hin rɑnkɑne/ ‘these things are beautiful’ and /doolɑ hin rɑnkɑne sɑɑki/ ‘these are beautiful things’.

## 2.2. Diphthongs

Finnish Romani has large variety of diphthongs: nine closing diphthongs: /ɑi ui oi ei yi ɑu ou iu eu/ and three opening diphthongs: /ie uo yæ/.

Three of the diphthongs are inherited: /ɑi ui oi/ are common in Romani and originate from elision of intervocalic consonants (Sampson 1926: 46).

The diphthongs that end in /u/ arise from (underlying) vowel + /u/ combinations, e.g. /gɑu/ > [ˈgɑu] ‘village’, /phou/ > [ˈpʰou] ‘eye-brows’, /lovo/ > [ˈlouvo] ‘money’, or from long vowels as shown below (see 1.5).

Original long vowels constitute another important source for diphthongs in Finnish Romani. In Finnish, the long vowels /ee oo œæ/ occurring in the first syllable underwent a diphthongization into /ie uo yæ/ already at the early stages of the language development, but in Finnish dialects even relatively recent loan words have undergone a similar process which affected also other syllables than the initial one. A similar diphthongization has taken place in many lexical items in Finnish Romani, especially in loan words, e.g. /dielɑvɑɑ/ ‘to distribute’ < Sw. *del*, /vuondros/ ‘bed’ < /vʊondros/, /skuulɑ/, /skoolɑ/ and /skoulɑ/ ‘school’ < Sw. *skola*, /lũcænos/ ‘salary’ < Sw. *lön*. Unlike in Finnish, the diphthongization has not been completed, as several examples like /ɑʒeeno/ ‘man’, /koolɑ/ ‘clothes’ and /fææros/ ‘road conditions’ indicate.

Valtonen (1968: 57) assumes that the diphthongization might have begun in Finnish Romani during the second half of the 19th century. The timing is based on the fact that Ganander’s prize essay (1779) that provides the earliest data on Finnish Romani does not yet contain any evidence on diphthongization, nor do the word lists collected by Arwidsson, Kemell or

Jürgen-Schmidt. The first examples of diphthongization are found in Reinholm's notes. Reinholm lists three items *poringiero* 'Russian', *vuondros* 'bed' and *byöna* 'prayer'. Thesleff (1901), on the other hand, seems to have considered the diphthongized forms as dialectal and tended to exclude them from his dictionary.

According to Valtonen (1968: 248), the long vowel diphthongization only took place in the Karelian dialect, while in Western Finland the original long vowels were retained. Today, the diphthongized forms seem to occur in the whole of the country.

The diphthongs are generally unaffected by inflexion. A few exceptions include some cases of contraction, such as /dɑi/ 'mother' GEN.MASC.SG /dɑko/; /tʃɑi/ 'girl', GEN.MASC.SG /tʃɑko/; /grai/ 'horse' GEN.MASC.SG /gresko/; /mui/ 'mouth', GEN.MASC.SG /mosko/ (or /mujesko/).

### 2.3. Vowel harmony

Finnish Romani has partially adopted the Finnish vowel harmony. Finnish has a front/back harmony, so that the front harmony vowels {y, œ, æ} and the back harmony vowels {u, o, ɑ} may not co-occur within the same non-compound word. The vowels {i, e} are considered neutral and may co-occur with both front and back harmony vowels (Karlsson 1983: 99). In Romani, the vowel harmony follows the same guidelines as in Finnish, but it is principally obligatory only within stems. Not all Romani suffixes tend to obey suffix harmony, and especially in forms with more than one suffix, the suffix harmony only affects the first suffix. This is the case in verbal forms like /myɛnt+æ-ʋaa/ 'to admit' and nouns like /symn+æs+kier+o/ 'thimble', for instance. For a more comprehensive treatment of vowel harmony in Finnish Romani, see Granqvist (1999a).

Presumably, vowel harmony has a sociolinguistic dimension, too. Valtonen (1968: 85) points out that the suffix harmony characterized the 'lower' (informal) register. According to him (id.), the 'upper' (formal) register lacks suffix harmony. This, however, still remains to be verified on the basis of the corpora available.

### 3. Consonants

#### 3.1. Stops

Finnish Romani has three sets of stops (voiceless unaspirated, voiced unaspirated, voiceless aspirated) common in Romani:

	Labial	Dental/alveolar	Velar
Voiceless unaspirated	p	t	k
Voiced unaspirated	b	d	g
Voiced aspirated	p <sup>h</sup>	t <sup>h</sup>	k <sup>h</sup>

The oppositions of the stop system are often neutralized so that only voiceless stops tend to occur in the surface realizations as a result of Finnish influence because Finnish has originally only one set of stops (that is, voiceless stops, except for /d/, voiced stops are only found in foreign items).

The stops /p k/ alternate occasionally. Both forms /pokɑlos/ and /kokɑlos/ ‘bone’ are reported.

The voiceless unaspirated stops [p t k] are phonetically similar to the Finnish ones. There is no palatalization. Allophones like [k<sup>i</sup> t<sup>i</sup>] that we find in Vlax dialects do not occur (Hancock 1995).

Like in other dialects of Romani, the voiced stops /b d g/ are devoiced in final positions, e.g. /dɑɑd/ → [dɑ:t] or [tɑ:t] ‘father’. A preceding nasal does not necessarily block the devoicing. Devoicing quite often takes place in other positions, too, e.g. /besko/ ‘small’ > [p̥esko] ‘small’ (but also ‘of him’, from the underlying /pesko/), exactly like in many idiolects of Finnish. Granqvist (forthc.) has estimated that devoicing takes place at least in 40 % of tokens of underlying voiced stops in the speech of many Finnish Roma.

In the Etelä-Pohjanmaa region, /d/ may surface as [r] following the Finnish dialects spoken in the area: therefore [t<sup>h</sup>ur] or [l<sup>h</sup>ur] ‘milk’ occurs instead of the common [t<sup>h</sup>unt] or [l<sup>h</sup>unt].

Aspirated stops are found only in initial positions of non-compound words and may only be followed by a vowel. In compounds, aspirated stops may fall into medial positions, but then a word- or at least a morpheme boundary precedes them as in /bi+p<sup>h</sup>ersikɑɑno/ ‘earnest, serious’ and /vɑre##t<sup>h</sup>emmeskiero/ ‘foreigner’. The original medial occurrences of aspirated stops have been substituted by long voiceless stops, e.g. /dik<sup>h</sup>ɑva/ >

/dikkɑɑ/ ‘to see’, /mek<sup>h</sup>ɑvɑ/ > /mekkɑɑ/ ‘to leave’. Aspiration never occurs word- or morpheme-finally. Thus, Finnish Romani has /ruk/ ‘tree’, not \*/ruk<sup>h</sup>/. Many speakers tend to substitute the plain fricative [h] for the aspirated stops /p<sup>h</sup> t<sup>h</sup> k<sup>h</sup>/ following the tendency to onset cluster simplification (after re-interpreting the aspirated stops as sequences of two segments C+/h/ instead of independent phonemes). /p<sup>h</sup>/ often surfaces as [f] or even [v] because Finnish originally lacks [f]. Therefore, /p<sup>h</sup>ɑllo/ ‘caught’, may be realized as [‘hɑlːo] [‘fɑlːo], or even (rarely) [‘vɑlːo].

### 3.2. Fricatives

	Labial	Dental	Alveolar	Velar	Glottal
Voiceless	f	s	(ʃ)	x	h

There is only a voiceless set of fricatives. /v j/ are analysed in this paper as semivowels rather than fricatives.

/f/ is a non-indigenous sound that only occurs in loan words in initial and medial positions: /fooros/ ‘city, town’, /tɑfɑ/ ‘table’. Due to Finnish effect, it is occasionally realized as [v].

/ʃ/ was put in brackets as it has been generally substituted by /x/. /ʃ/ is today only found in a small area in the South-East of Finland, where the main area of the Karelian sub-dialect is located (see map 2).

Valtonen (1968: 97) mentions that at the time of Ganander (1779), /ʃ/ was still prevailing in Finnish Romani, e.g. *schero* ‘superintendent’. However, already Arwidsson and Kemell had found a few forms with /x/ substituted for /ʃ/, such as *tuchni* ‘pot’, *bachhen* ‘desire’ (Arw.), *kachte* ‘wood’, *chelo* ‘rope’ (Kem.). Based on this evidence, Valtonen (id.) claims that the use of /x/ instead of /ʃ/ thus begun during the first half of the 19th century. Reinholm used both forms, so does Thesleff (1901), too.

Valtonen (id.) assumed that /ʃ/ would have disappeared early from Finnish Romani. Given this assumption, he was surprised to find that as late as in the 1950's, Kronqvist included several lexemes with š in his word list of the dialect spoken in Western Finland. He (id.) explained these items as reflecting the kalderash pronunciation of the Roma that came from Sweden. Admittedly some of the lexemes in Kronqvist's word list are recently adopted and very opaque loan words, for instance *šelavaa* ‘wash’ < Sw. *skölja*, *šitavaa* ‘tickle’ < Sw. *kittla* and *šenkavaa* ‘send’ < Sw. *skänka*, but most of them belong to



the core lexicon of Romani, such as *maškar* ‘between’, *šošo* ‘rabbit’, *šeel* ‘hundred’, *beresš* ‘year’ etc.

The substitution of /x/ for /ʃ/ has caused some homonymes, e.g. /xou/ 1. ‘beautiful’ < /xou/; 2. ‘six’ < /ʃou/ < /ʃou/.

As Finnish lacks the voiceless velar spirant, the underlying /x/ very often surfaces as [h] or [k<sup>h</sup>] instead of [x], e.g. /xɑɑ/ ‘due to’ → [hɑ:ɪ] or [k<sup>h</sup>ɑ:ɪ]. So all three phonemes /k<sup>h</sup> h x/ may be realized as [h] and both /x/ and /k<sup>h</sup>/ as [k<sup>h</sup>]. However, the distributions of the three phonemes discussed here overlap only partially, because only /x/ can be a member in a consonant sequence (actually with a couple of exceptions, such as the word /kɑhmos/ ‘leather, hack’). /k<sup>h</sup>/ and /h/ do not even occur as long consonants. Like the other aspirated stops, /k<sup>h</sup>/ is furthermore permitted only in initial positions of non-compound words. Underlying long semivowels caused by morpheme concatenation are converted into vowel + semivowel sequences on surface. Thus the underlying /dʒou+es+k+o/ surfaces as [‘dʒouvesko] ‘oats+OBL.SG+GEN+MASC.SG’

### 3.3. Affricates

Finnish Romani has two alveolar affricates, a voiceless and a voiced one, but no aspirated affricate.

	Alveolar
Voiceless	tʃ
Voiced	dʒ

The voiceless affricate /tʃ/ occurs commonly all positions, e.g. /tʃɑu/ ‘boy’, /matʃo/ ‘fish’, /tʃatʃo/ ‘true’, /ritʃ/ ‘bear’. In initial position, many occurrences of initial [tʃ] derive from an original [k<sup>h</sup>] via fronting and secondary affrication (and loss of aspiration) before the front vowels /e i/ in a similar way as in Swedish: /kerɑva/ > [‘tʃe:rɑ:] ‘to do’, /k<sup>h</sup>er/ > [‘tʃe:r] ‘house’. This is actually a selective palatalization process similar to the one reported in Southwestern Vlach (Boretzky 2002; see also Matras 2002: 49). It has passed through the entire Finnish Romani lexicon, with the exception of a small group of lexical items, mostly borrowed ones: [‘ke] ‘if’, [‘kentos] ‘child’, [‘kis:i(k)], ‘purse’, [‘kirsi] ‘shawl’, to the point that [k] and [tʃ] are principally in complementary distribution. Thus [tʃ] could be treated as an allophone of

/k/, but this analysis would probably be counter-intuitive to the speakers who are used to treating [tʃ] as an allophone of /tʃ/, as it would bring us closer to the forms found in other Romani dialects. Many original instances of medial /tʃ/ have been substituted by /ss/ in Finnish Romani, e.g. /patʃaa/ > /passaa/ 'to believe'.

In non-compound words, /dʒ/ is, on the other hand, almost completely restricted into initial position, e.g. /dʒaanaa/ 'to know'. Finnish Romani has generally replaced the original medial and final occurrences of /dʒ/ with the sibilant /s/. Thus Finnish Romani has /dʒuuso/ 'clean' and /lans/ 'shame' instead of /dʒudʒo/ and /ladʒ/, the latter via a nasal epenthesis. Viljo Koivisto's (1994) Romani–Finnish–English Dictionary contains two true medial occurrences of /dʒ/, but these are rare in normal speech: /raadʒa/ 'king', /podʒa/ 'hem, edge' (the more casual form of the latter one is /ponsa/). In a way analogous with its voiceless counterpart, [dʒ] may arise from [g] like in /dʒiili/ < *gili*, or [j] through affrication: Valtonen (1968: 88) provides evidence of the Swedish loanwords *genom* > ['dʒinom] 'via', *gifta* > ['dʒiftava:] 'to marry' and *göpen* > ['dʒepna] 'handful'.

Both affricates may only occur as short (single). /tʃ/ may be preceded by another consonant, as in /baltʃi/ 'pig' and /mortʃi/ 'leather, skin, hide', but not /dʒ/.

The voiceless affricate surfaces quite often as [tʃ] even in casual speech, but is often realized as [ts] or [s], too, since Finnish lacks [ʃ ʒ] (as a result of re-interpretation as a sequence of two segments and successive onset cluster simplification), e.g. /tʃai/ → ['tsai] or ['sai] 'girl'.

In the North, [ʃke:r] 'house, home' is occasionally found in addition to the more common [tʃe:r].

[dʒ] is more rare than [tʃ] in casual speech. Like in English, Norwegian and Swedish Romani, /dʒ/ has in Finnish Romani a tendency to surface as [dʲ] (or [dj]), or – far more frequently – as [j] after onset cluster simplification (Valtonen 1968: 99–100; Smart & Crofton 1926; Iversen 1944: 74–81; Gjerdman & Ljungberg 1963). Actually the realization [dʲ] or [dj] is also quite rare in Finland. They are only found in approximately the same geographical area in the Eastern Finland as the original [ʃ]. The map (3) shows that the plain semivowel [j] today covers the most part of the country. Thus /dʒuuli/ 'woman' is most typically realized as [ju:li]. As shown in the map (3), in the Northern sub-dialect, however, the affricate undergoes devoicing, so that the opposition between the two affricates becomes neutralized: /dʒuuli/ 'woman' surfaces in this sub-dialect usually as [tʃu:li], [tsu:li] or [su:li].

### 3.4. Nasals and liquids

	Labial	Dental/alveolar
Nasals	m	n
Liquids		l
		r

Finnish Romani has two nasals /m n/ that do not differ from those of the other European languages. The nasals historically triggered voicing of stops, which can be still seen in the nominal paradigm in genitive and dative plural in Finnish Romani. Younger loan words like ['beŋkos] 'bank' and ['teŋkɑvɑɑ] 'to think' show that the voicing is not productive anymore. /n/ has the allophone [ŋ] before any velar stops. /ng/ is usually realized as [ŋk] or [ŋg] in word- or morpheme-final positions, but medially [ŋ] replaces the entire consonant sequence. A preceding nasal does not necessarily block the devoicing in Finnish Romani as it does in some other dialects of Romani. Thus /jɑng/ 'fire' appears as ['jɑŋk] or ['jɑŋg], but /ɟʒuuj+en+g+o/ 'woman+GEN.MASC.SG.+MASC.' surfaces typically as ['ɟʒu:jeŋ:o].

Homogeneous nasals have been inserted before short and long voiced stops and affricates. Thesleff (1901) still included in his dictionary forms without the epenthetic nasals, e.g. *jagg* 'fire' > /jɑng/, *födduvaa* 'to be born' > /fönduvaa/, *džabbaa* 'to sing' > /ɟʒambɑɑ/, *ruggos* 'rye' > /rungos/ etc. Today the epenthetic nasals are regularly present at least in casual speech.

The liquids /l r/ are similar to the Finnish ones. /r/ is thus a trill, not an alveolar flap. There is no uvular [ʁ]. Valtonen (1968: 103) provides some examples on /l/ ~ /r/ alternation: *olhos* ~ *orhos* 'stallion', *bachher* ~ *baxxela* 'beg+PRES.SG.3rd', *schimmelä* ~ *chümmerä* 'beer', *šeir* ~ *šēl* 'hundred', *ronka* ~ *lonka* 'hip', *snōr* ~ *snōl* 'greedy', but his data are largely based on old notes from very different stages of language development.

There is no palatalization of /n l/ before front vowels. Unlike in Vlax, the allophones [n<sup>l</sup> l<sup>l</sup>] do not appear in Finnish Romani (Hancock 1995). The sequences /nj/, /lj/ are pronounced [nj], [lj], except for certain morphophonological environments, in which a simplification takes place, resulting in a plain semivowel at the surface level (see below).

### 3.5. Semivowels

Labial	Palatal
v	j

In this paper, we have analysed /v j/ as semivowels rather than fricatives. This treatment follows some grammars of Finnish, such as Karlsson (1983: 57). /v j/ share many properties with the vowels /u i/, but have also frication noise. Since /v j/ cannot occur on surface as geminate clusters, the distribution of /v j/ furthermore differs from the true fricatives /f s (ʃ) x/, which may be either short or long.

Furthermore, the treatment of [v] is different in initial syllables than other syllables.

The phonetic [j] may derive from several sources in Finnish Romani: (i) the underlying phoneme /j/: /jou/ 'he'; (ii) the underlying vowel /i/ through glide formation /i/ → /j/: /pɑn+iɑ+k+o/ → ['pɑnjɑko] 'water+OBL.SG+GEN+MASC.SG'; and (iii) in the most part of the country, the affricate /dʒ/: /dʒuuli/ → ['juuli] 'woman'.

The semivowels /v j/ sometimes alternate. For instance, the oblique stem of the word /dʒou/ 'oats' sometimes occurs as /dʒoujɑ-/ with an epenthetic /j/ typical to Finnish Romani (/dʒoujɑko vɑɑro/ 'oatmeal'), but sometimes as /dʒouʋ-/ (/dʒouʋitiko/ '(made) of oats') preserving the original /v/. In Northern Finland, ['kɑ:ʋo] 'gadž o' is found in addition to the more common variant ['kɑ:jo].

### 4. Consonants phonotactics

Finnish Romani has a large variety of consonant sequences with little restrictions. In initial position, indigeneous words may contain clusters of two consonants, e.g. /drɑbɑvɑɑ/ 'to read', /grɑi/ 'horse', /stɑɑr/ 'four'. The number and frequency of initial consonant cluster types were further increased by the incorporation of loan words like /blumma/ 'flower', /fliika/ 'sheet', /klɑkkɑ/ 'heel', /kvella/ 'evening', /smykkɑ/ 'piece of jewelry'. Scandinavian and Germanic loan words also contain initial clusters of three consonants, e.g. /skrɑttɑvɑɑ/ 'to laugh', /skriiʋɑvɑɑ/ 'to write', /sprengɑ/ 'crack', /strangɑ/ 'beach, shore'. All initial clusters of three consonants belong to the type /s/+any voiceless unaspirated stop+/r/.

Many speakers have a tendency to onset cluster simplification, causing the first segment(s) of underlying initial CC and CCC clusters not to surface: therefore /str**ɑnnɑ**/ 'beach, shore' may be realized as [r**ɑnnɑ**], and /drou**ves**/ 'strongly' as [r**ouves**]. This tendency is most probably due to Finnish effect, as in the past, Finnish has prohibited any onset clusters, but nowadays many word-initial CC-clusters are quite frequent and fully pronounceable in many (but not all) varieties.

The largest variety of consonant sequences occurs in medial position. For instance, the lemmata of Viljo Koivisto's (1994) Romani–Finnish–English Dictionary contain in medial position 117 different sequences of two consonants (including the geminates), 39 sequences of three consonants, and four sequences of four consonants.

Finnish Romani has many types of indigenous medial CC sequences, like /beng**ɑlo**/ 'bad, poor, ugly', /tern**o**/ 'young', /rom**ni**/ 'Romni', /bikn**ibɑ**/ 'selling', /**ʃ**irikli/ 'bird', /soske/ 'why'. Loan words have added several more sequences like those in /f**ɑ**briik**ɑ**/ 'factory', /s**υɑɑ**bl**ɑ**/ 'sulphur', /di**ɑ**gnosos/ 'diagnose', /oksos/ 'ox', /jelp**ibɑ**/ 'help' and /**ɑ**rp**ibɑ**/ 'lot, drawing of lots'. Many occurrences of the sequences, in particular those having one of the semivowels as the second member, arise through morpheme concatenation: /duk+**υɑlo**/ 'muddy, turnid, cloudy', /k**ɑn**+**υɑlo**/ 'obedient', /**ɑ**ʒil+j-**ɑ**+k+o/ 'song+OBL.SG+GEN+MASC.SG', /p**ɑn**+j-**ɑlo**/ 'watery, wet' etc.

One important group of the medial CC sequences consists of geminates. The quantity of consonants is distinctive in Finnish Romani. This is indicated by the minimal pair /b**ɑxibɑ**/ 'music, musical instrument': /b**ɑxxibɑ**/ 'request', for instance. Most consonants (i.e. the unaspirated voiceless stops, all fricatives except for /h/, nasals and liquids, but not the semivowels) may occur as single or geminate. The voiced stops used to occur regularly as geminate at earlier stages, but not often any more in contemporary Finnish Romani. All other consonants occur as single consonants only.

There are indigenous medial sequences of three consonants (/**ɑ**ndre/ 'in, into', /**ɑ**ngrusti/ 'ring'), but most of the CCC sequences are either borrowed (/bultr**ɑvɑɑ**/ 'to knock', /k**ɑ**nsleeros/ 'chancellor', /merk**nos**/ 'mark, cross, sign', /m**ɑ**msl**ɑ**/ 'young lady') or due to morpheme concatenation (/n**ɑɑl**+s**υɑɑ**riba/ 'liability', /end+**υɑlo**/ 'bad', /l**ɑns**+**υɑrdo**/ 'shameful'). There is also a group of medial CCC sequences that consist of a sonorant and a morpheme-final long obstruent (/xenkk+**ɑvɑɑ**/ 'to send', /hortt+ib**ɑ**/ 'right', /frelss+**ɑvɑɑ**/ 'to save').

Like the Romani of Wales, for instance, Finnish Romani does not permit obstruent + sonorant + yod sequences like in \*[<sup>l</sup>rɑkl+jɑ+k+o] ‘girl+OBL.SG+GEN.+MASC.SG’ (Sampson 1926). This kind of sequences always undergo simplification that deletes the middle segment so that the underlying /rɑkliɑko/ surfaces as [<sup>l</sup>rɑkjɑko] (see also below).

Medial CCCC sequences are found in two loan words from Swedish, /polstriinɑ/ ‘mattress’ and /rumstribɑ/ ‘rattle’, but also the word /lɑngxto/ may be analyzed as having a sequence of four consonants.

Final clusters are restricted into a few types: most notably, combinations of homorganous nasals with stops or /s/ deriving from an affricate (/<sup>h</sup>und/ ‘milk’, /lɑns/ ‘shame’), the combinations of fricatives with stops /-st/ and /-xt/ (/uɑst/ ‘hand’, /bɑxt/ ‘luck’), and the combinations of /r/ with stops or /x/ (/fuort/ ‘soon, quickly’, /morx/ ‘1. man; 2. gelded (animal)’).

Finnish Romani tends to reduce the final sequences of a nasal and a stop to the plain nasal. This results in realizations like [tʃim] ‘language’ via nasal epenthesis before a final voiced stop. The combinations of fricatives with stops are reduced to the fricatives in many Romani dialects. In Finnish Romani, this kind of final cluster simplification occasionally takes place, too, but the process is far from being completed. Generally the final /-st/ and /-xt/ remain unchanged but there are a few parallel forms like [ʋux] ~ [ʋuxt] ‘flax, linen’ and [bɑx] ~ [bɑxt] ‘luck’.

The word /pɑngx/ ‘five’ may be analyzed as having a final cluster of three consonants.

## 5. Syllable structure and related phonological processes

The main syllabification rule of Finnish Romani is that every CV sequence is preceded by a syllable boundary. Thus the words /rigibɑ/ ‘transport’, /kurribɑ/ ‘war’ and /sɑemsibɑ/ ‘agreement’ are syllabified /ri.gi.bɑ/, /kur.ri.bɑ/, /sɑem.si.bɑ/. The aspirated stops and affricates are treated as single segments, e.g. /bi.p<sup>h</sup>er.si.kɑɑ.no/, /rɑɑ.dʒɑ/ ‘king’. Prefixes like /bi-/ are, however, always followed by a syllable boundary, e.g. /bi.spɑɑ.ko/ ‘wild, untamed’.

Koivisto’s (1994) lemmata contain nineteen different syllables types. However, more than 90 % of all syllables are covered by the three most common types: CV (50.75 %) that is universally optimal in languages, CVC (24.31 %) and CVV (15.49 %). Note that the VV sequences may be either long vowels or diphthongs.

Although there are a few occurrences of syllables that consist of up to four moras (e.g. VVCC, CVVCC), Finnish Romani has a very strong preference of light (shorter than trimoraic) syllables. In Koivisto's (1994) lemmata, approx. 97 % of all syllables are either monomoraic or bimoraic. Medial and final syllables tend to be monomoraic CV, but initial syllables favour heavier bimoraic structures like (C(C))CVC and (C(C))CVV. The syllable weight, thus, is closely related to the Finnish Romani stress pattern with primary stress always on the initial syllable.

The different preferences for the stressed and unstressed syllables have most interesting consequences on the level of phonological processes, triggered by violations of well-formedness constraints on syllable structure. First, underlying vowels in stressed syllables are mostly unspecified for quantity. If there is no coda, the vowels tend to undergo lengthening, but otherwise they are usually realized as short. So the underlying /pani/ 'water', for instance, surfaces as [pɑ̃ni], but the genitive has a short vowel, because the syllable structure changes due to morpheme concatenation: /pɑn+iɑ+k+o/ > [pɑn.jɑ.ko] 'water+OBL.SG+GEN+MASC.SG'. Especially in recent loan words, the long vowels have turned into diphthongs and thus the complex peak has become an integral feature of the lexical item. This is the case in /dielɑvɑɑ/ 'to distribute' and /lyɑnos/ 'salary', for instance, that arise from the Swedish *del* 'part' and *lön* 'salary'. Historically, Finnish Romani has adopted long stem-final unaspirated stops and fricatives before a sonorant as a result of Swedish or Finnish influence, e.g. /mortt+i/ 'skin, leather' (a parallel form of /mortʃi/, with a minor semantic shift), /hortt+o/ 'right, real' < Gr. *ορθός*, /frelss+ɑvɑɑ/ 'to save' < Sw. *frälsa* [frelsɑ] etc. There is, furthermore, a synchronically productive process that lengthens any single stem-final consonant to obtain a bimoraic structure. This happens before any vowel-initial suffixes: /ruk/ 'tree': [rukʔa] 'tree+NOM.PL', /phus/ 'straw' > [pʰus:esko] 'straw+OBL.SG+GEN+MASC.SG', /bɑr/ 'mark' > [bɑr:ɛŋgo] 'mark+OBL.PL+GEN+MASC.SG'; /but+i/ 'work' > [but:i]. The lengthening does not take place if the syllable that makes up the stem is longer than bimoraic: /ʃeer/ 'house' > /ʃeer+es+k+o/ 'house+OBL.SG+GEN+MASC.SG', nor does it take place if heavy syllables would be caused by morpheme concatenation: /but+iɑ+k+o/ > [but.jɑ.ko] 'work+OBL.SG+GEN+MASC.SG', never \*[but:ʔ.jɑ.ko] (cf. Matras 2002: 55). To inhibit heavy syllables a simplification acts on CCj sequences caused by morpheme concatenation: so /romn+iɑ+k+o/ 'Romni+ OBL.SG+GEN+MASC.SG' is realized [rom.jɑ.ko], never \*[romn.jɑ.ko], but Cj sequences are left intact as [pɑn.jɑ.ko] shows.

The semivowel [ʋ] occurring (underlyingly) as a coda tends to be lenited into [u]. This explains, why the underlying /dʒou/ 'oats' and /gɑu/ 'village' are realized as [ʔdʒou] and [ʔgɑu]. Because underlying stem-final consonants undergo gemination before a vowel, there is a surface /v/ in [ʔdʒouvesko] arising from /dʒou+es+k+o/ through /dʒouvesko/, but is lenited in [ʔxeujɑko] 'hole, wound+OBL.SG+GEN+MASC.SG' based on /xeu+jɑ+k+o/.

As the unstressed syllables tend to be CV, there is, in particular a strong tendency to delete the underlying sonorants /n, l/ as well as the semivowel /ʋ/, occurring as codas if any consonant or a word boundary follows. So the underlying /komun+jɑ/ 'people+ PL.NOM.SG/ACC.SG.' is realized [ʔko.mu.jɑ].

## 6. Further phonological processes

Sometimes an epenthetic /j/ may be inserted between two heterosyllabic vowels to obtain more natural CV syllable structures: in some cases the /j/-epenthesis may alternate with coda cluster simplification (e.g. /romn+iɑ+k+o/ 'Romni+OBL.SG+GEN+MASC.SG' → [ʔromjɑko] or [ʔromnijɑko], but not for instance in /ʋɑɑl+iɑ+k+o/ 'glass+OBL.SG+GEN+MASC.SG' that surfaces as [ʔʋɑ:lɪjɑko] or [ʔʋɑ:lɪɑko], never \*[ʔʋɑljɑko] or \*[ʔʋɑɑjɑko]. The application of the /j/-epenthesis instead of long vowel shortening and coda cluster simplification seems a modern tendency in Finnish Romani, yielding more prototypical agglutinative structures.

Initial vowels tend to undergo elision. Consider the pronoun forms like /ɑdɑuʋɑ/ > /dɑuʋɑ/ 'this', /ɑdouʋɑ/ > /douʋɑ/ 'it', /ɑme/ > /me/ 'we' and the verb /ɑɑʋɑ/ > /ʋɑ/ (all synchronically attested), diachronically even /ɑnɑʋ/ > /nɑʋ/ 'name'.

Medial /ɑ/ is often syncopated in the item /p<sup>h</sup>urɑnide/ 'older; the parent(s)' > /p<sup>h</sup>urnide/.

Final /n/ is often dropped in items like the personal pronoun /tumen/ 'you' (PL.2nd) → [ʔtume], participles such as /pirimen/ 'beloved' → [ʔpirime] and nouns like /xɑɑben/ 'food' → [ʔxɑ:pe] or [ʔxɑ:be]. Included forms like [ʔxɑ:benesko] 'food+OBL.SG+GEN+MASC.SG' incideate, however, that the underlying /n/ surfaces in non-final positions. The voiceless stop /k/ tends also not to surface in final position in nouns like /kissik/ 'purse' → [ʔkis:i], but in this kind of tokens the deletion presumably takes place due to analogy reasons rather than a general phonological rule, since the final /k/ of the NOM.SG is otherwise absent in the case/number paradigm: e.g. /kiss+i-j-ɑ+k+o/ 'purse+OBL.SG+GEN+MASC.SG', /kiss+i+j-en+ge/ 'purse+OBL.PL+DAT'.



The initial /r/ is often deleted from a few lexical items: /rɑkkɑvɑɑ/ > /ɑkkɑvɑɑ/ 'to speak', /rikkɑvɑɑ/ > /ikkɑvɑɑ/ 'to keep, to hold, to like'; /rigɑvɑɑ/ > /igɑvɑɑ/ 'to lead, to transport'. This kind of /r/-dropping seems to be somewhat more frequent in all other areas except for the southernmost regions of the country.

Metatheses are more frequent in the Northern than in the Southern dialects, and generally they occur in a small part of the lexicon (Boretzky 2002). In Finnish Romani metathesis has altered in particular the position of /r/ within the word. Koivisto's (1994) lemmata provide some examples of this kind of process: /ɑnɡrusti/ ~ /ɑnɡustri/ 'ring', /pɑɑrkiba/ ~ /pɑɑkriba/ 'thank', /ʃingrɑvɑɑ/ ~ /ʃingɑrɑvɑɑ/ 'to wound, to insult' etc.

## 7. Stress

Unlike in many other Romani dialects, in Finnish and Hungarian Romani, the primary stress is placed on the initial syllable, e.g. [ˈkɑ:lɔ] 'black', [ˈʃɑ:vɛ] 'boys' (Valtonen 1968: 58; Hedman 1996). The stress system, thus, coincides with the Finnish system as for the primary stress. As for the secondary stress, this must be still empirically checked.

The stress shift is most probably related to the preference of bimoraic first/stressed syllables as well as other phenomena including the diphthongization of stem-final consonants and the tendency of long vowels or diphthongs to occur in initial syllables. According to Matras (2002: 60) the vowel lengthening originally took place independently of the stress, and the correlation of the two features emerged later. There are also forms, in which the old stressed syllables used to have a long vowel still in Valtonen's (1968) times, but have ceased to do so by now. Valtonen (1968: 132) reports that one of his informants used forms like [ˈteŋkɑvɛ:hɑ] 'think+TR+PRES. SG2' arising from [teŋkɑˈvesɑ] instead of today's [teŋkɑvɛhɑ].

## 8. Conclusion

This paper showed some important instances of mainly Finnish influence on the phonological system, yielding the peculiar Finnish-like surface phonology, whereas the underlying forms are much closer to the ones known from other Romani dialects. The following are clearly attributed to Finnish effect: the adoption of a large variety of diphthongs, the partial adoption of vowel harmony, stop devoicing, loss of aspiration, different phenomena affecting the

affricates, new phonotactic constraints borrowed from Finnish and the distinctive quantity of vowels and consonants.

With no doubt, one of the most significant historical changes has been the stress shift from the end of word to the first syllables. This has had several consequences on the syllable structure and the phonotactics. One important principle presented in this paper relates the stress shift with the different constraints on the structure of initial/stressed syllables. There is a dual treatment of /v/ and the sonorants /n l/ as codas on one hand in stressed syllables, on the other hand in other syllables. In stressed syllables that favour bimoraic structures, these segments are permitted as codas, whereas they tend to be deleted in the end of unstressed syllables that usually are monomoraic CV.

Valtonen (1968: 247) correctly assumed that the Eastern subdialect is more wide-spread, perhaps due to the larger mobility of the Karelian Roma and the resettlement of the Karelian refugees after World War II. The three maps show that actually Eastern forms occur even in Southern and Western Finland, while the main area of the Eastern subdialect is located in South-East, near the Russian border. The Western/Northern subdialect is today spoken in a relatively small area around the Vasa region.

### Abbreviations

ACC	Accusative,
DAT	Dative
GEN	Genitive
MASC	Masculine
OBL	Oblique
NOM	Nominative
PL	Plural
PRES	Present
SG	Singular

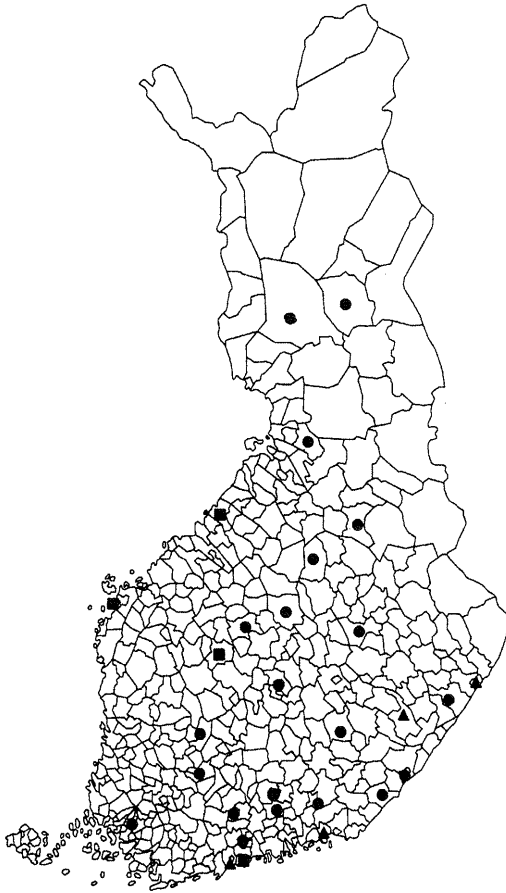
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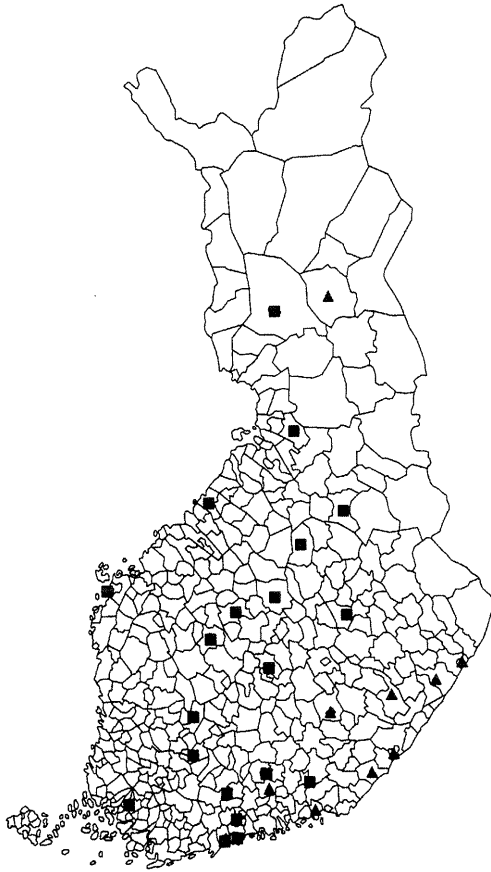
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## APPENDIX I. Maps.



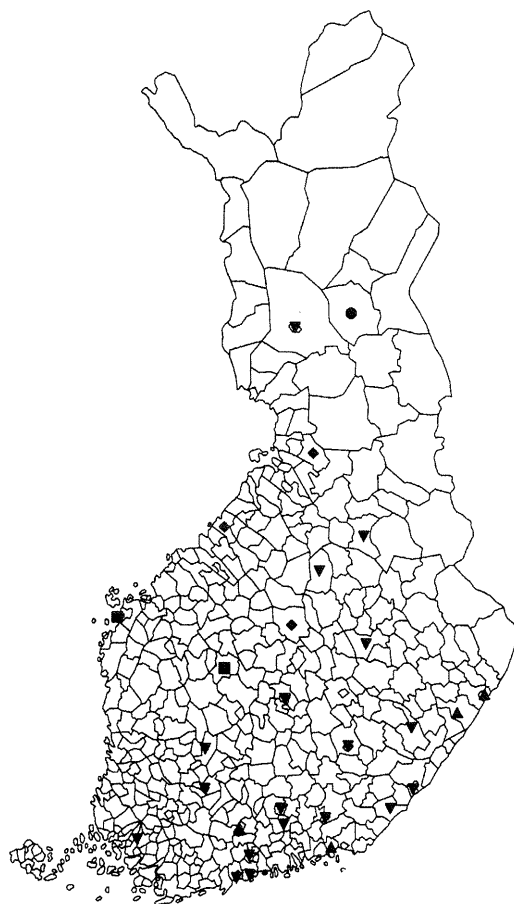
■ ai      ● ai / æi      ▲ æi

Map 1. /a/-fronting.



■ x      ▲ x / ʃ

Map 2. Substitution of /x/ for the original /ʃ/.



▲ j / dj      ▼ j      ■ tʃ / s      ◆ tʃ / j      ● tʃ / j / dj

**Map 3.** Treatment of the underlying affricate /tʃ/. The standard [tʃ] is found in the entire country.