

# Phonology of Uralic: the introduction

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**Saami**

South (1a) Ume (1b) Pite (1c) Lule (1d) North (1e)  
Inari (1f) Skolt(1g) Akkala (1h) Kildin (1i) Ter (1j)

**Finnic**

Finnish (2a) Karelian (2b) Ludic (2c) Veps (2d)  
Ingrian/Votic (2e) Estonian (2f) South Estonian (2g)  
Livonian (2h)

**Mordvin**

Moksha (3a) Erzya (3b)

**Mari**

Mari (4)

**Permic**

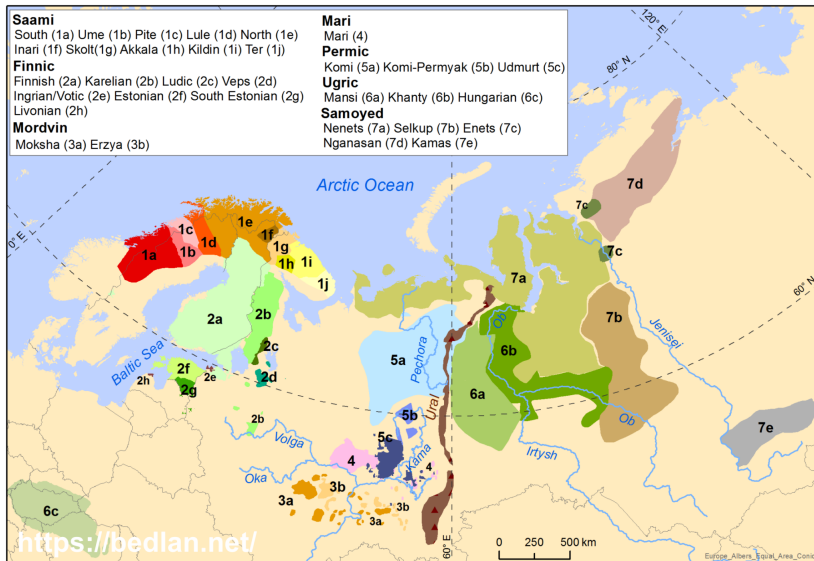
Komi (5a) Komi-Permyak (5b) Udmurt (5c)

**Ugric**

Mansi (6a) Khanty (6b) Hungarian (6c)

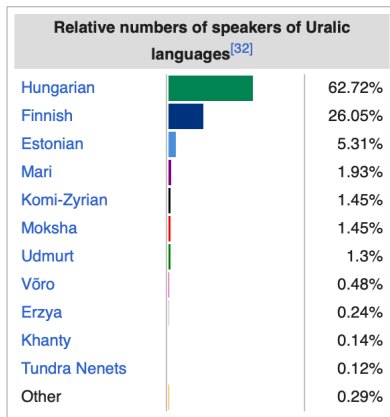
**Samoyed**

Nenets (7a) Selkup (7b) Enets (7c)  
Nganasan (7d) Kamas (7e)



# Glimpse into sociolinguistics

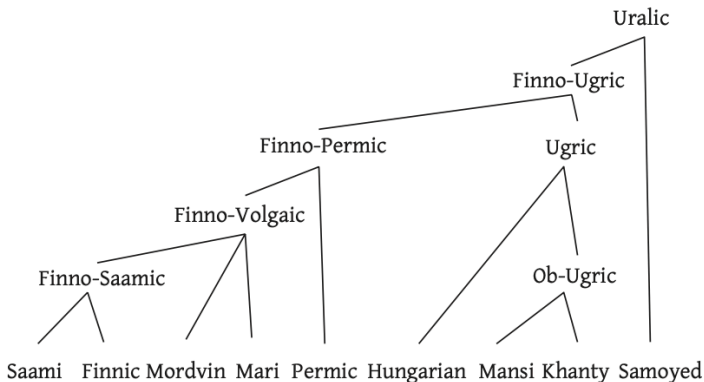
- Most Uralic languages are endangered
- Wikipedia chart based on Russia (2010) and EU (2012 and comparable dates) censuses



# Uralic family

- » 42 languages, according to Ethnologue
- » Spoken by approximately 25 million people [source]
- » Largest language is Hungarian (~17 mil), a lot of minority languages on different levels of endangerement
- » Branches that can be uncontroversially established (Salminen 2002)
  - Finnic
  - Mari
  - Mordvin
  - Permian
  - Sami
  - Samoyed
  - Hungarian, Khanty, Mansi

# Branches of Uralic

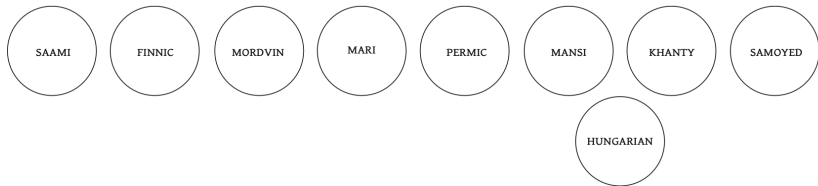


**Figure 1.2** The taxonomical structure of the Uralic language family according to the view commonly held until the 1980s, but now widely contested

(Aikio 2022)

# Branches of Uralic

- » Finnic, Mari, Mordvin, Permian and Sami languages, together with Hungarian, Khanty and Mansi
- » “To sum up the phonological and other evidence for the alleged proto-languages between Proto-Uralic and the level of the basic branches, it can be stated that there is very little of it” (Salminen 2002)



**Figure 1.1** The branches of the Uralic family in an approximate geographical order along the east-west axis  
Slightly modified from Salminen (1999: 20)

(Aikio 2022)

# Sa(a)mi

- Several Saami languages are now spoken in Norway, Sweden, Finland  
North (the biggest of all), South, Inari, Skolt
- Only one Saami language left in Russian Federation – Kildin Saami

Most notable common features:

- Trochaic stress with unstressable final syllables
- Complex vowel quality alternations (historically explicable)

(1) Kildin Saami vowel alternation (Kert 1971)

- |                   |                 |
|-------------------|-----------------|
| a. <i>jel'l'e</i> | 'to live'       |
| b. <i>jaλa</i>    | 'live.PRS.1SG'  |
| c. <i>jil'l'e</i> | 'live.IMPF.1SG' |

- Consonant gradation

# Finnic

- » Spoken in Finland, Estonia, North-West Russia and Latvia
- » A lot of consonant gradation

## (2) Finnish consonant gradation (quantitative; semi-productive)

- a. *pappi* 'priest' : *papit* 'priests'
- b. *lobbaan* : *lobata* 'to lobby'

## (3) Karelian consonant gradation (qualitative; )

- a. *ukko* 'old man.NOM' : *ukon* 'old man.GEN'
- b. *voassa* 'bear.NOM' : *voasan* 'bear.GEN'

- » Trochaic stress, primary stress on the first syllable, final syllable unstressed



# Finnic

Examples from Karelian (Kovedjaeva 1993a)

» Vowel harmony

- |     |    |              |        |
|-----|----|--------------|--------|
| (4) | a. | <i>kala</i>  | 'fish' |
|     | b. | <i>n'ägö</i> | 'face' |

» Vowel length contrast

- |     |    |               |        |
|-----|----|---------------|--------|
| (5) | a. | <i>tuul'i</i> | 'wind' |
|     | b. | <i>tul'i</i>  | 'fire' |

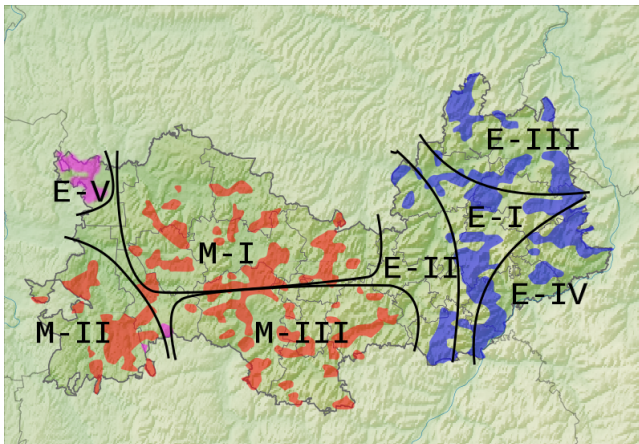
# Mordvin

- » Spoken in the Mordovia republic and neighbouring regions, European part of Russia



# Mordvin

- » Moksha and Erzya languages; divided into smaller dialects
- » Endangered but supported



# Mordvin

In the Moksha language, as described in (Toldova & Kholodilova 2018):

» Contrastive palatalisation

(6) *mar – mar'* 'pile' – 'apple'

» Contrastive voicing, in sonorants as well (Moksha only)

(7) *kal – kaľ-n'ə – kal-n'e* 'fish' – 'fish-PL' – 'fish-1SG.POSS.PL'

» Initial stress, shifted depending on vowel quality:

(8) a. *káľn'ə* (initial default) 'fish.DEF.PL'  
b. *kuvákə* (non-initial shifted) 'long'

# Mordvin

» Heaviest possible syllable structure: CCCVCCCC

(9) Moksha consonant clusters

- |    |                               |                      |
|----|-------------------------------|----------------------|
| a. | CCCVCCCC: <i>kšt'ər'fc't'</i> | 'spin.CAUS.PST.3PL'  |
| b. | CCCVCCCC: <i>kstikst</i>      | 'berry garden.PL'    |
| c. | CCVCCCC: <i>bratksč'</i>      | 'fraternise.PST.3SG' |

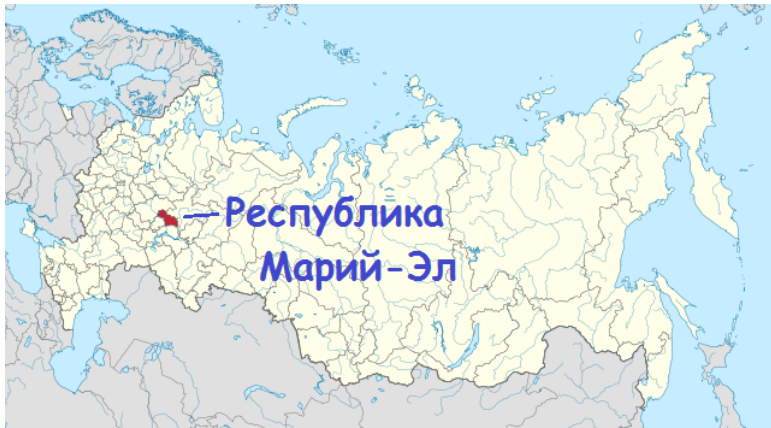
» Vowel hiatus is prohibited

(10) Glide insertion in vowel hiatus

- |    |                                    |             |
|----|------------------------------------|-------------|
| a. | <i>mu + an</i> → <i>mu-jan</i>     | 'find-1SG'  |
| b. | <i>jožu + an</i> → <i>jožu-van</i> | 'smart-1SG' |

# Mari

- » Mari languages: Meadow Mari and Hill Mari
- » Spoken in the European part of Russia



# Mari

» Exception from the regular Uralic trochaic stress pattern

(11) Penultimate stress is prevalent in Hill Mari (Krasnova et al. 2017)

a. *lâd-aš* 'read-INF'

b. *lâd-âkt-aš* 'read-CAUS.DST-INF'

c. *lâd-âkt-al-aš* 'read-CAUS.DST-ATT-INF'

» Stress can be contrastive and sometimes has to be lexically encoded

(12) Contrastive stress in Mari (Kovedjaeva 1993b)

a. *šérye* 'dear'

b. *šeryé* 'comb'

# Mari

» Vowel harmony in Hill Mari

(13) Front vowels only after front vowels

a. *arava*

‘wagon, wheel’

b. *ävä*

‘mother’

(14) Non-front vowels only after non-front vowels

a. *mond-en-äm*

‘forget-PRET-1SG’

b. *âl-ân-am*

‘be-PRET-1SG’

» Free distribution only in initial syllables

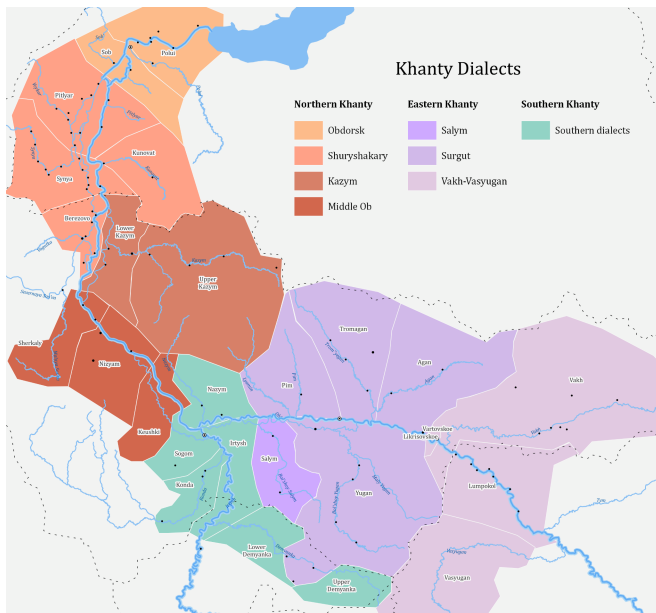


# Khanty

- » Spoken in Khanty-Mansi and Yamalo-Nenets okrugs (Western Siberia; Kh-M on the map)
- » Significant variation between dialects
- » Traditional occupations: fishing, reindeer herding and hunting



# Khanty dialects



# Khanty

- » Voiceless fricative [ɬ] typed as /λ/
- » No voicing contrast in stops

## (15) Russian loanwords in Kazym Khanty

- a. *danila* (Rus) → *tańλa* (Kh) (Daniel)
- b. *grigorij* (Rus) → *kirkør* (Kh) (Gregory)

- » (C)V(C)(C) syllable structure

## (16) Epenthesis to rescue initial clusters in Kazym Khanty

- a. *knižka* (Rus) → *kinška* (Kh) 'book'
- b. *škola* (Rus) → *aškola* (Kh) 'school'

# Khanty

- » Schwa is subject to vowel-zero alternations in some morphemes

(17) Surface realisations of the suffix *-əmən* '1DU'

- a. *orət-λ-əmən* 'drag-NPST-1DU'  
b. *pərλə-s-mən* 'soar-PST-1DU'

- » Trochaic stress

(18) Khanty stress pattern

- a. 'λaraś λaraś 'box'  
b. 'λaraśεma λaraś-εm-a 'box-POSS.1SG-DAT'  
c. 'λaraśa λaraś-a 'box-DAT'

# Samoyed

- » Samoyed languages: Nganasan, Enets, Nenets, Selkup
- » Nenets languages: Tundra Nenets (TN) and Forest Nenets (FN)
- » Yamal-Nenets okrug on the map



# Nenets

In Nenets, as described by Sammallahiti (1974), Salminen (2007), Burkova (2022):

» Contrastive vowel length in FN

(19) *kăta* – *kata* ‘fingernail’ – ‘grandmother’

» Only preserved in stressed syllables

» Over-short vowel schwa, occasionally expounded suprasegmentally

(20) Schwa in FN – /<sup>o</sup>/

a. *ka-λ<sup>o</sup>* [kaλĩ] ‘ear-POSS.2SG’

b. *kăλ<sup>o</sup>* [kăλλ] ‘knife’

c. *kin’iw<sup>o</sup>* [kin’íw] ‘cat’

# Nenets

- » No voicing contrast in consonants
- » Contrastive palatalisation (examples from FN)

- (21) a. *pǎj° – p'aj* 'crooked' – 'wooden'  
b. *tĩ – čil°* 'reindeer' – 'cloud'

- » Occasional consonant gradation effects in FN

- (22) Forest Nenets durative (Salminen 2007: p. 359)
- a. *kata-p'o-* 'kill-DUR'
- b. *ta-m'p'o-* 'bring-DUR'

# Nenets

» Vowel harmony in VxV contexts

(23) FN /a ă °/ subject to vowel harmony

- a. *tõ + xăna* → *toxona* 'lake-LOC'  
b. *d'ił'i + xăna* → *d'ił'ixina* 'month-LOC'

» Basic syllable structure is CV(C)

» Trochaic non-final stress

(24) TN stress pattern

- a. *tataŋata* ['ta.ta.'ŋa.ta] 'he's exchanging'  
b. *wed'aʔku* ['we.d'aʔ.ku] 'dog'



# Characteristic features of Uralic

## Vowel systems:

- » Contrastive vowel length
- » Vowel harmony (Hungarian, Mari, Samoyed)
- » Phonologically contrastive tone is not observed

## Consonants:

- » Contrastive palatalisation (Saami, Khanty, Moksha, Nenets; lost in Finnic)
- » Occasionally lacking contrastive voicing; curious interaction with Russian
- » A range of possible consonant clusters: from almost none (Khanty, Nenets) to really big (Moksha)

# Characteristic features of Uralic

## Stress patterns:

- » Initial primary stress, secondary stress on odd non-final syllables
- » Affected by vowel quality in Moksha
- » Interacts with vowel-zero alternations in Khanty and Forest Nenets
- » Lexical accent in Mari
- » Phonologically contrastive tone is not observed

# Roadmap

	Languages	Topics
<b>Tuesday</b>	Finnish, Estonian, Saami	Consonant gradation
<b>Wednesday</b>	Moksha	Hiatus resolution, stress
<b>Thursday</b>	Khanty (Kazym d.)	Vowel-zero alternations, stress
<b>Friday</b>	Forest Nenets (Pur d.)	Vowel length, stress, schwa, consonant gradation, vowel harmony





# Phonological framework

- » Analyses will be couched in Strict CV
- » Before a theoretical analysis, framework-free generalisations will be established
- » Materials available:
  - [datasets]
  - [last week's class handouts]

# References I

-  Aikio, Ante. 2022. **Proto-Uralic**. In Marianne Bakró-Nagy, Johanna Laakso & Elena Skribnik (eds.), *The oxford guide to the Uralic languages*, 3–27. Oxford: Oxford University Press.
-  Burkova, Svetlana. 2022. **Nenets**. In Marianne Bakró-Nagy, Johanna Laakso & Elena Skribnik (eds.), *The oxford guide to the Uralic languages*, 674–708. Oxford: Oxford University Press.
-  Kert, Georgij Martynovič. 1971. **Saamskij jazyk (kil'dinskij dialekt): fonetika, morfologija, sintaksis** [The Saami language (Kildin dialect): phonetics, morphology, syntax].
-  Kovedjaeva, Evgenija Ivanovna. 1993a. **Karel'skij jazyk** [The Karelian language]. 63–75.
-  Kovedjaeva, Evgenija Ivanovna. 1993b. **Marijskij jazyk** [The Mari (Cheremis) language]. 148–163.
-  Krasnova, Nadezhda et al. 2017. *Reading Hill Mari through Meadow Mari*. Vienna: University of Vienna & the Ludwig Maximilian University of Munich.

## References II

-  Salminen, Tapani. 2002. Problems in the taxonomy of the Uralic languages in the light of modern comparative studies. In *Lingvističeskij bespredel. Sbornik statej k 70-letiju A. I. Kuznecovoj* [Linguistic mayhem. Festschrift for A. I. Kuznecova on the occasion of her 70th birthday], 44–55. Moscow: Izdatel'stvo Moskovskogo universiteta.
-  Salminen, Tapani. 2007. Notes on Forest Nenets phonology. In Jussi Ylikoski & Ante Aikio (eds.), *Sámit, sánit, sátnehámit. riepmočála pekka sammallahtii miessemánu 21. beaivve 2007. suomalais-ugrilaisen seuran toimituksia = mémoires de la société finno-ougrienne*, vol. 253, 349–372. Helsinki: Suomalais-Ugrilainen Seura.
-  Sammallahti, Pekka. 1974. *Material from Forest Nenets*. Helsinki: Castrenianum.
-  Toldova, Svetlana & Maria Kholodilova (eds.). 2018. *Èlementy mokšanskogo jazyka v tipologičeskom osveščanii* [Elements of the Moksha language in a typological perspective]. Moscow: Buki Vedi.