

Kildin Saami documentary sociolinguistics

Investigations on the variation and change in function words

Niko Partanen, Michael Rießler, Evgenia Zhivotova

Diversity Linguistics: Retrospect and Prospect
MPI EVA Leipzig, May 1–3, 2015

May 1, 2015

Co-authors and ongoing projects

Grammatical description
(Kildin Saami varieties)

Michael Rießler | **Uni Freiburg**

Methodology in documentary sociolinguistics
(Komi and contacting Barents languages)

Niko Partanen | **Uni Freiburg**

Function words in language contact
(different indigenous languages of Russia)

Evgenia Zhivotova | **MPI EVA Leipzig**

Kildin Saami (Glottolog: kild1236)

Language sociology

- ▶ 100 “active” / 700 “passive” speakers (Scheller, 2011)
- ▶ revitalization attempts, incl (written) language planning

Kola Peninsula, NW-Russia



East-Saamic < Saamic < Uralic

Changes induced by language shift to Russian

- ▶ all levels of grammar (for variation and change in function words specifically, see Kert, 1975, Karvovskaya, 2011, Zhivotova, 2014a,b)
- ▶ “revitalization-induced change” (due to purism) (Rießler et al., 2013)

Alexandra A. Antonova (1932–2014)

Fieldwork (Rießler et al., 2005+)



Language documentation meets language technology

Our goal

- ▶ develop better interaction between language documentation and language technology
- ▶ building better corpora, which make empirically verifiable analyses possible
 - ▶ **more** data (> 500.000 word tokens for Kildin)
 - ▶ **diverse** data (language modes, registers, genres, etc.)
 - ▶ **contextualized** data (“thick” metadata: speaker biographies, meta-documentation, etc.)

Our approach

- ▶ rather shallow annotation
 - ▶ orthographic transcription, no interlinearization
 - ▶ but better **automated** morphosyntactic glossing

ELAN → FST → ELAN (Blokland et al., 2015)

token lemma+PoS+Gloss ‘These are fish.’

тэгк тэдт+Det+Pl+Nom

лѐв лийе+V+3+Prs

кӯль кӯль+N+Pl+Nom

кӯль+N+Sg+Gen

кӯль+N+Sg+Acc

The screenshot shows the ELAN software interface with the following details:

- Window title: ELAN - ELAN-FST2.eaf
- Menu bar: File, Edit, Annotation, Tier, Type, Search, View, Options, Window, Help
- Toolbar: Grid, Text, Subtitles, Lexicon, Metadata, Controls
- Timeline: Selection: 00:00:00.000 - 00:00:05.000
- Transcription: ELAN-FST-1
- Annotations:

тэгк	лѐв	кӯль			
тэдт	лийе	кӯль			
Det	V	N			
Pl+Nom	3+Prs	Pl+Nom	Sg+Gen	Sg+Acc	

Corpus data interface

ELAN → R (Partanen, 2015)

http://127.0.0.1:7011 [Open in Browser](#) [Publish](#)

FRorpus **Concordances** Visualize Information & Help Contact

Over left border:

Gender: Variant: Language: Modus: Genre:

Show entries

Before	Token	After
сбн шоабэшьт . кбххт-э коазя шоабэшьт .	ну	сбнн тб-же сйнэть
угкал , нийт лийпэнь порт сйнэть ,	ну	ляйпэть вуаллгал
мйллса-же пуннь-дэйт , коазя-дэйт , пённга-дэйт ,	ну	самай тэдт мйллса
вуагклэнь , чъл рунт вуагклэнь начит .	ну	пённэ я коазя , вуагклэнь
на мун вальт кунньэ ! » «	ну	так , нюам муннё !
тбнн эгк вуг ни-мэйн тоагэ . »	ну	. а пённга цялдж :
каллса мун-же первай друк лийй . пённга	ну	, вообще мунн хозьнан шоабша

Genre dropdown menu options: All, narrative, tale, teaching, idiom, literature, interview, etc.

The connector “and”

Kildin Saami /ja/ inherited (← Saamic < Germanic)

- ▶ я /ja/
- ▶ NP coordinator, VP coordinator, S coordinator

Kildin Saami /i/ borrowed (< Russian)

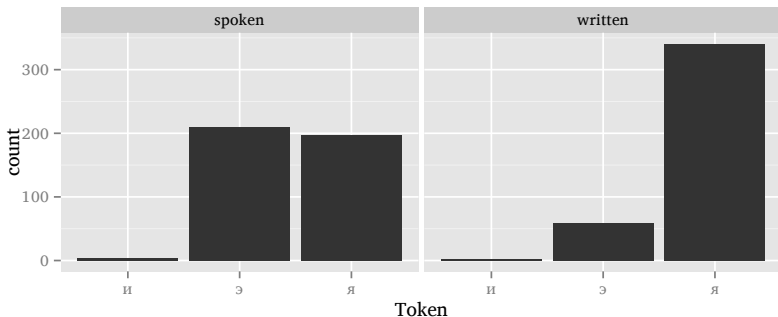
- ▶ э /i/
- ▶ NP coordinator, VP coordinator, S coordinator

Ja menn sōnn tes't oarr, munn väll'te i rūvv'teguejm pierrse pimm'e-denn.
'And it was lying here; I took (it) and cut the paper with the scissors.'

([sjd20070421kudckullj-008] NEA, spoken, informal)

The connector “and”

Token distribution across four speakers



- ▶ и /i/ Russian (code-switching)
- ▶ э /i/ < Russian (borrowing)
- ▶ я /я/ ← Saamic (inherited)

Variation in two speakers/writers across text modes 1

AAA (f, 1932) and NEA (f, 1939)

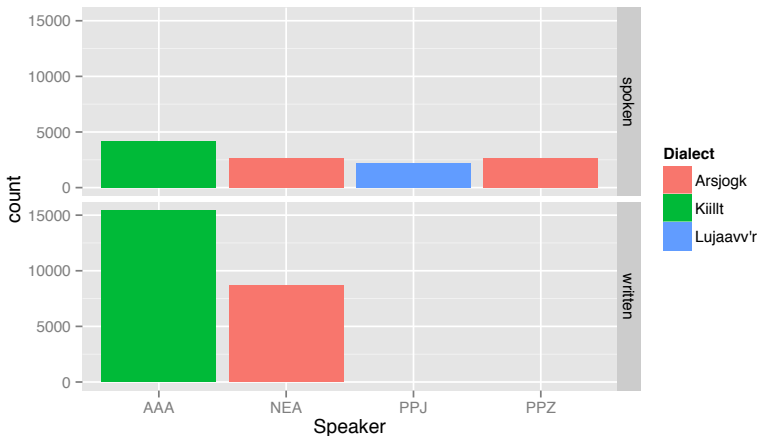
- ▶ female L1 speakers
- ▶ teachers and language activists
- ▶ productive writers and consultants for linguists
- ▶ different dialects

Control group: PPJ (m, 1936), PPZ (f, 1913)

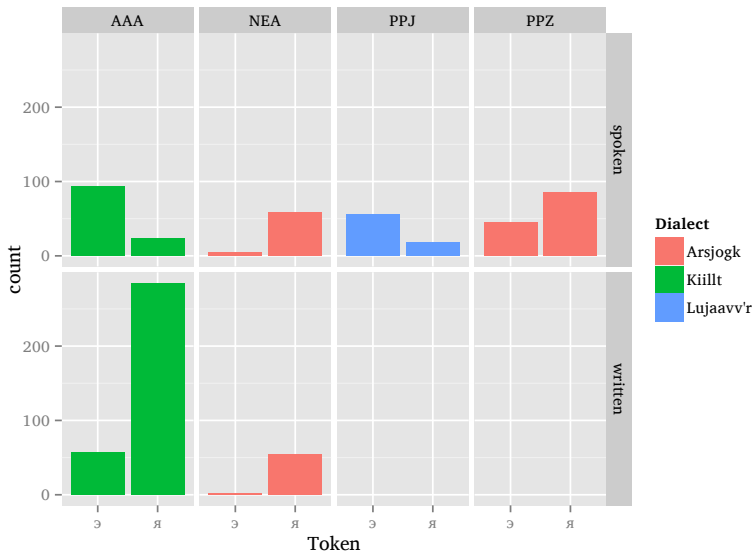
- ▶ two non-writers recorded by earlier projects

Variation in two speakers/writers across text modes 2

Our (sub-) corpus data: Tokens across spoken and written mode



Variation in two speakers/writers across text modes 3



Summary

Exemplary case study

- ▶ inherited /ja/ and borrowed /i/ compete over the same functions
- ▶ inherited /ja/ is preferred in written variants (in line with Zhivotova, 2014a,b)

More detailed investigations, including statistics, will be carried out on a larger and more diverse corpus.

- ▶ Applying language technology in language documentation helps us to create more systematically annotated corpora, rather than eclectic data collections.
- ▶ Ultimately, the multimodal corpora we create will be useful for quantitative investigations into synchronic variation and change in Kildin Saami.

References I



Blokland, Rogier et al. (2015). “Language documentation meets language technology”. In: *Proceedings of the First International Workshop on Computational Linguistics for Uralic Languages*. Ed. by Tommi A. Pirinen et al. Tromsø. In press.



Haspelmath, Martin (2007). “Coordination”. In: *Language Typology and Syntactic Description*. Ed. by Timothy Shopen. 2nd ed. Cambridge, pp. 1–51.




Karvovskaya, Elena (2011). “Focus particles in endangered languages”. In: *Proceedings of Conference on Language Documentation and Linguistic Theory 3*. Ed. by Peter K. Austin et al. London, pp. 161–170.



Kert, G[eorgij] M[artynovič] (1975). “Saamskij jazyk”. In: *Osnovy finno-ugorskogo jazykoznanija*. Vol. 2. Ed. by V. I. Lytkin et al. Moskva, pp. 203–247.

References II

-  Partanen, Niko (2015). *FRelan. Parse and analyze ELAN files*. R package version 0.1. URL: <http://github/izvakomi/FRelan>.
-  R Development Core Team (2011). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing. Vienna, Austria. URL: <http://www.R-project.org/>.
-  Rießler, Michael et al. (2005+). “Kola Sámi Documentation Project (KSDP)”. In: *Endangered languages. DoBeS archive*. Nijmegen. URL: http://corpus1.mpi.nl/ds/indi_browser?openpath=MPI363060%23.
-  Rießler, Michael et al. (2013). “Purism in language documentation and description. ” In: *Keeping languages alive. Documentation, Pedagogy and Revitalization*. Ed. by Mari Jones et al. Cambridge, pp. 83–97.

References III

-  Scheller, Elisabeth (2011). “The Sámi language situation in Russia. Finno-Ugric minorities”. In: *Ethnic and linguistic context of identity. Finno-Ugric minorities*. Ed. by Riho Grünthal et al. Uralica Helsingiensia 5. Helsinki, pp. 79–96.
-  Wickham, Hadley (2009). *ggplot2: elegant graphics for data analysis*. URL: <http://had.co.nz/ggplot2/book>.
-  Xie, Yihui (2013). *knitr: A general-purpose package for dynamic report generation in R*. URL: <http://yihui.name/knitr/>.
-  Zhivotova, Evgenia (2014a). “Function words in a situation of language contact. Kildin Sámi and Russian”. poster presented at The Young Linguists’ International Conference, Stockholm, 28 June 2014.

References IV



Zhivotova, Evgenia (2014b). “Function words in a situation of language contact. Kildin Sámi and Russian”. [Conference paper presented at The 2nd Silesian Meeting of Young Scholars, Szczyrk, Poland, 6–7 November 2014.](#)