

Estonian Language Community ca. 1900: Learning from Linked Metadata

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Riga, National Library of Latvia

Reconstructing a past community

Estonians in Russian Empire ca. 1900

19th century: major changes to language communities across Europe

- Spoken, rural, low-prestige -> written, national, high-prestige
- Regional diversity -> dominant standards

How did this happen? How were the modern national standard languages born?



Governates of Estonia & Livonia in the Russian Empire, 1916 (Meeli Mets)

Estonian in the late 19th century

National movement supporting Estonian as a „developed“ language.

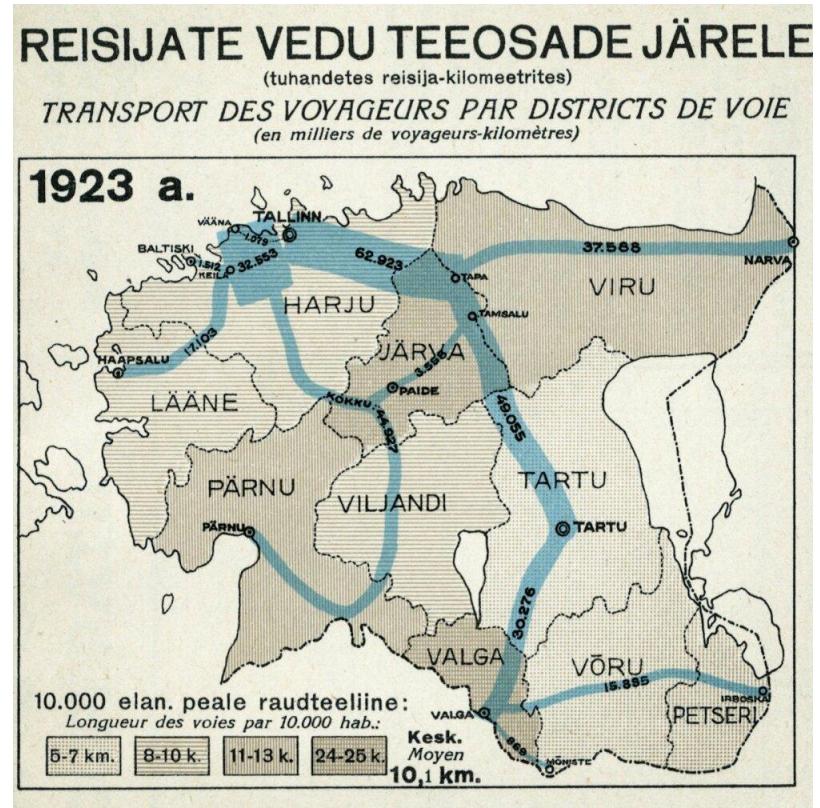
- Dictionaries, high literature.
- German-dominated -> Estonian-dominated

Rapid growth in literacy helped by a growing school network (1850-1900)

- 20% -> 91% read, X% -> 77% write

Highly increased possibilities for geographic and social mobility.

- Freedom of movement reforms 1826, 1849/1856, 1863
- Urbanization 6% 1825 -> 19% 1897
- Railroads 1870, 1876, 1889, 1896



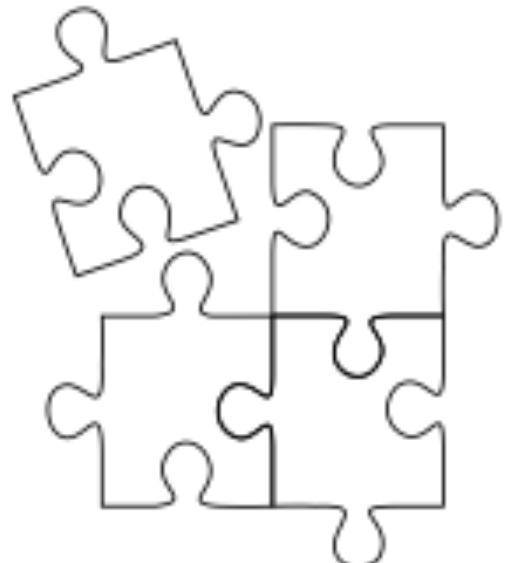
Demographic processes

How much spoken language contact?

Tradition vs innovation among writers?

Native dialects of the writers?

Reconstructing based on historic data



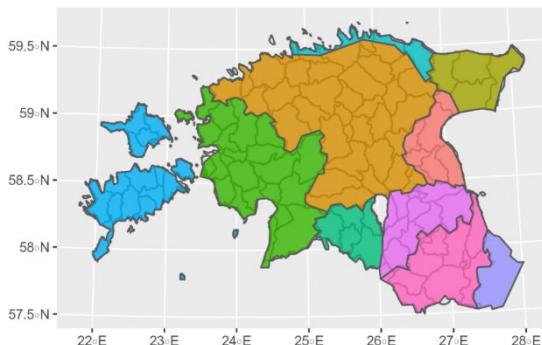
Sources

Aggregated historical census data

Estonian National Bibliography

Linked biographies

Dialect maps



Im Alter von:	Bevölkerung exel. actives Militair												Gesamtbevölkerung		
	ledig		verheiratet		verwittwet		geschieden		Summa						
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	Zusammen	M.	W.	Zusammen	
91 Jahr . . .	—	2	1	1	8	12	—	—	9	15	24	—	9	15	24
92 . . .	—	1	1	—	5	11	—	—	6	12	18	—	6	12	18
93 . . .	—	—	3	2	5	12	—	—	6	14	20	—	6	14	20
94 . . .	1	3	—	—	7	10	—	—	8	15	21	—	8	15	21
95 . . .	1	4	4	1	15	35	—	—	20	40	60	—	20	40	60
91–95 Jahr .	2	10	9	4	38	80	—	—	49	94	143	—	49	94	143
96 Jahr . . .	1	2	1	3	1	10	—	—	3	15	18	—	3	15	18
97 . . .	—	—	1	—	5	6	—	—	6	6	12	—	6	6	12
98 . . .	—	—	1	6	12	—	—	7	12	19	—	7	12	19	
99 . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
100 . . .	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
96–100 Jahr .	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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11642	TRUE									Loskit, Karl	Loskit, Karl				1884-1936	SalLoskit, Kar	http://est.org/est/18714954238700301920		
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Case 1: Migration & dialect contact

Sources

Reconstructed population growth

Demographic studies

Census data

Where did the people originated from

Census data

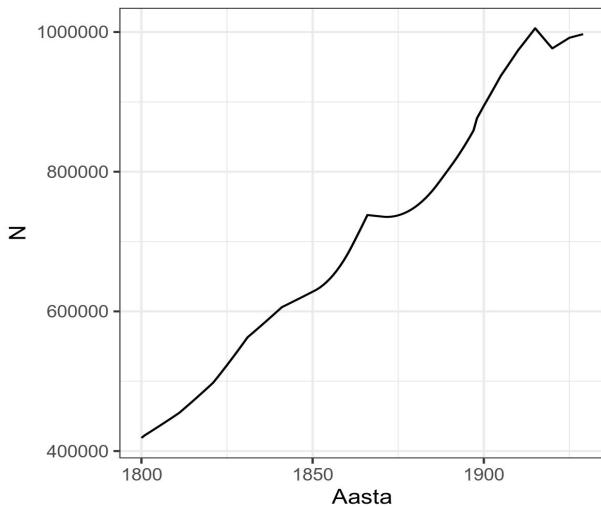
Dialect backgrounds

Dialect and administrative maps

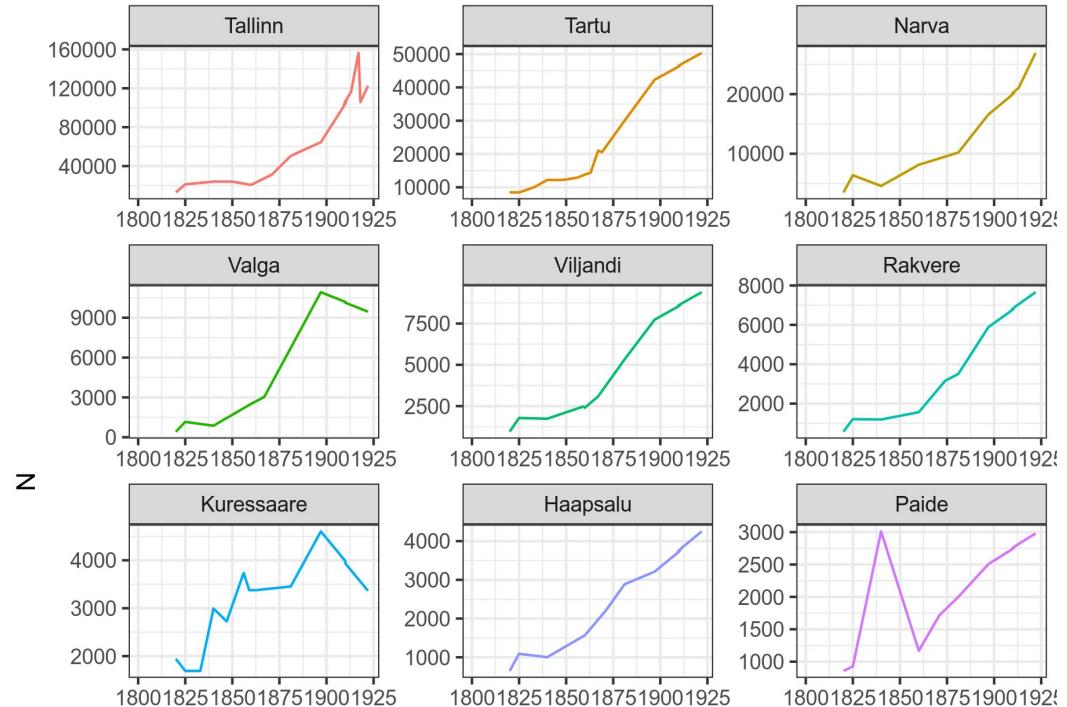
Population growth & urbanization

Population growth and urbanization

Population growth 2.5x



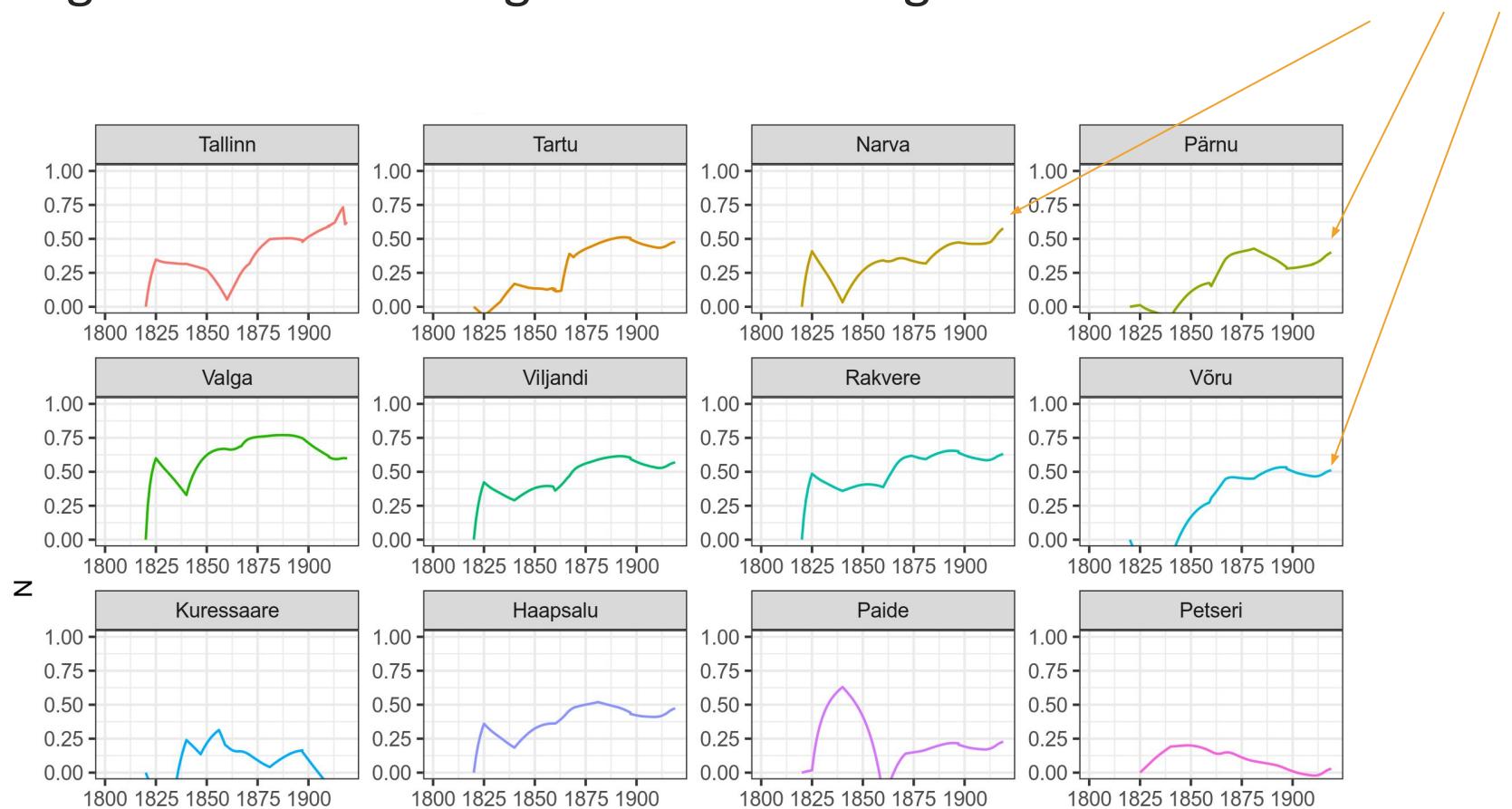
Growth in cities 4-6x



Immigrants in the cities

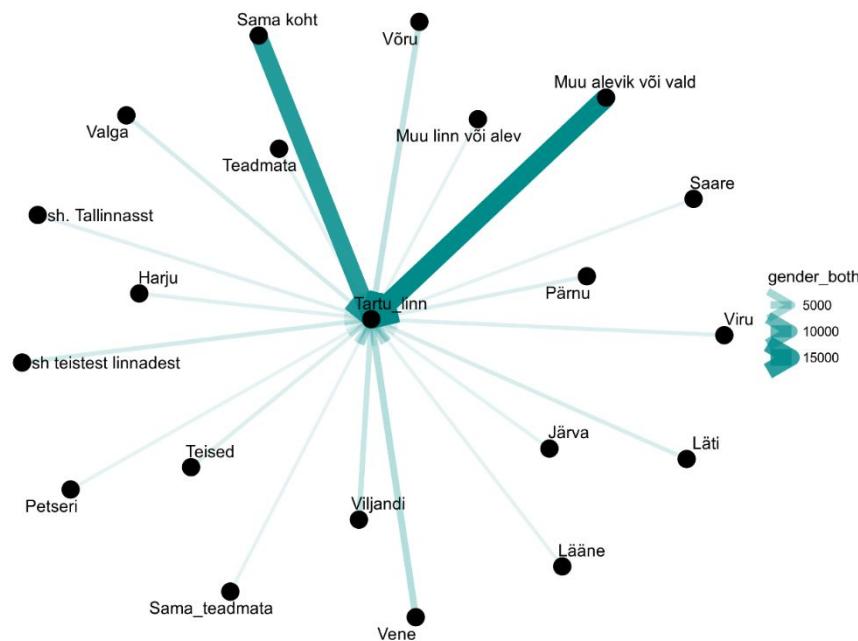
Immigrants = Recorded growth - Natural growth

Many have ~50%



Where did they come from?

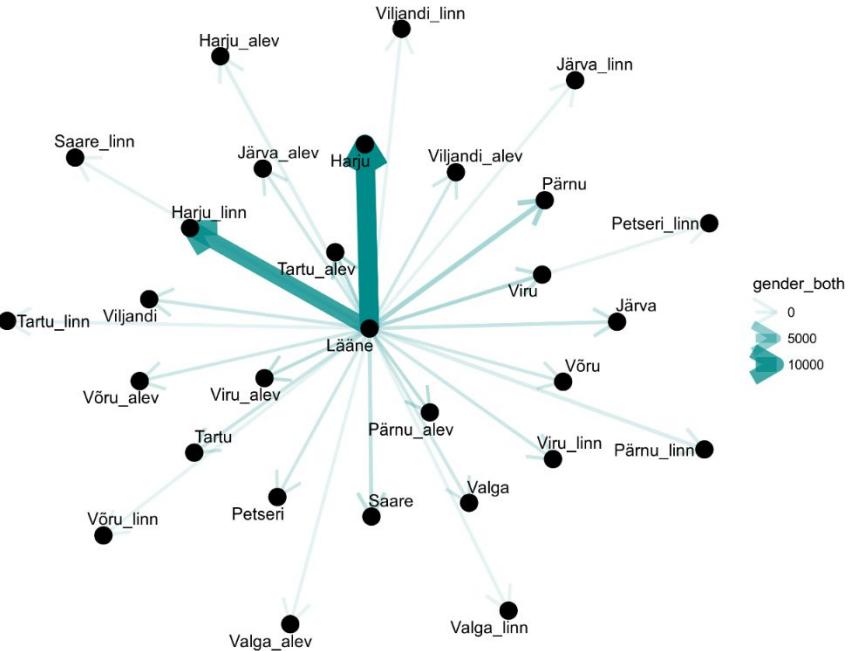
1922 census also asked about birthplace (by county)



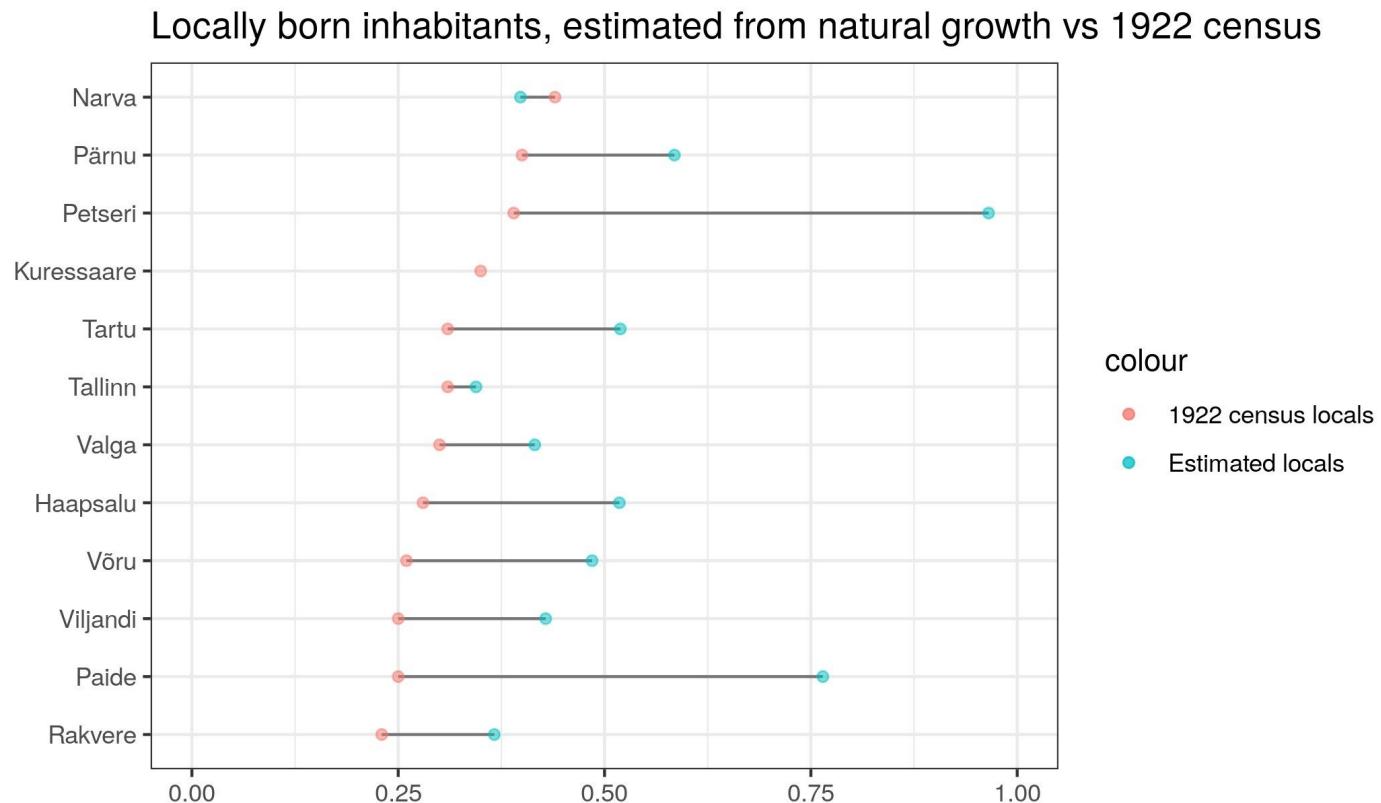
50 TARTU ja VALGA m.kd.

Tab. 8 (järg) —

Sama maakond — <i>Le même arrondis.</i>	Teised maakonnad —																	
	Sama maakond — <i>Le même arrondis.</i>		Teised maakonnad —															
	Sama adm. üksus — <i>La même unité administrative</i>		Linn ehk alev — <i>Ville ou bourg</i>		Alevik ehk vald — <i>Commune rurale</i>		Adm. üksus tead. — <i>L'unité administrative connue</i>		Viru		Järva		Harju		Lääne		Saare	
	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.	M.	N.
VALLAD— <i>Com. rurales:</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
53. Roela	605	658	9	11	241	354	—	—	8	15	4	2	3	4	—	—	1	—
54. Ropka	239	241	95	116	380	441	3	1	15	11	1	3	10	8	2	3	1	3
55. Rõngu	490	548	21	22	305	372	—	3	2	1	—	1	—	3	—	1	—	—
56. Saadjärve	370	386	38	53	378	457	—	1	6	6	2	11	4	8	1	1	1	—
57. Saare	534	564	3	9	223	305	3	—	4	7	2	1	4	3	1	1	—	—
58. Sootaga	435	442	53	51	262	327	—	—	8	3	—	1	4	2	—	1	—	—
59. Tamme	179	175	19	21	222	251	—	—	2	—	—	—	2	—	—	2	—	—

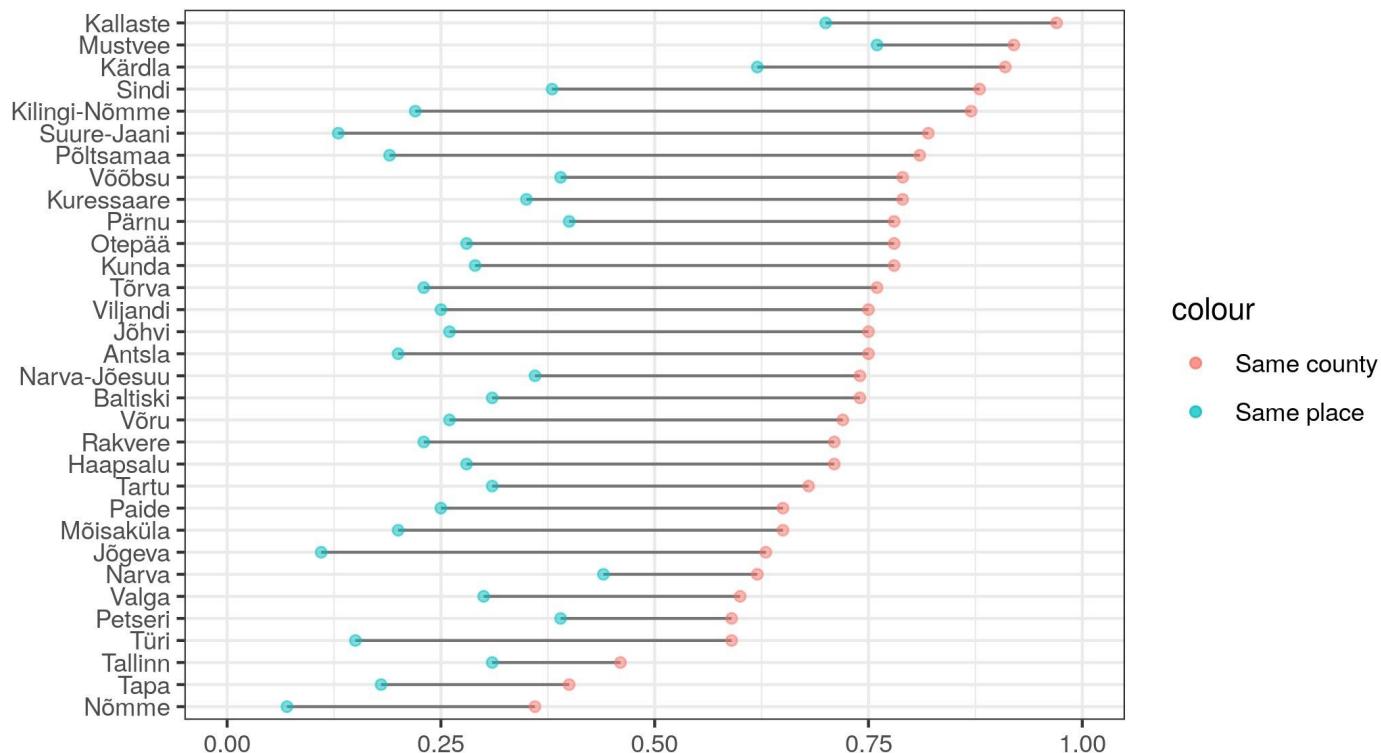


Proportion of locals

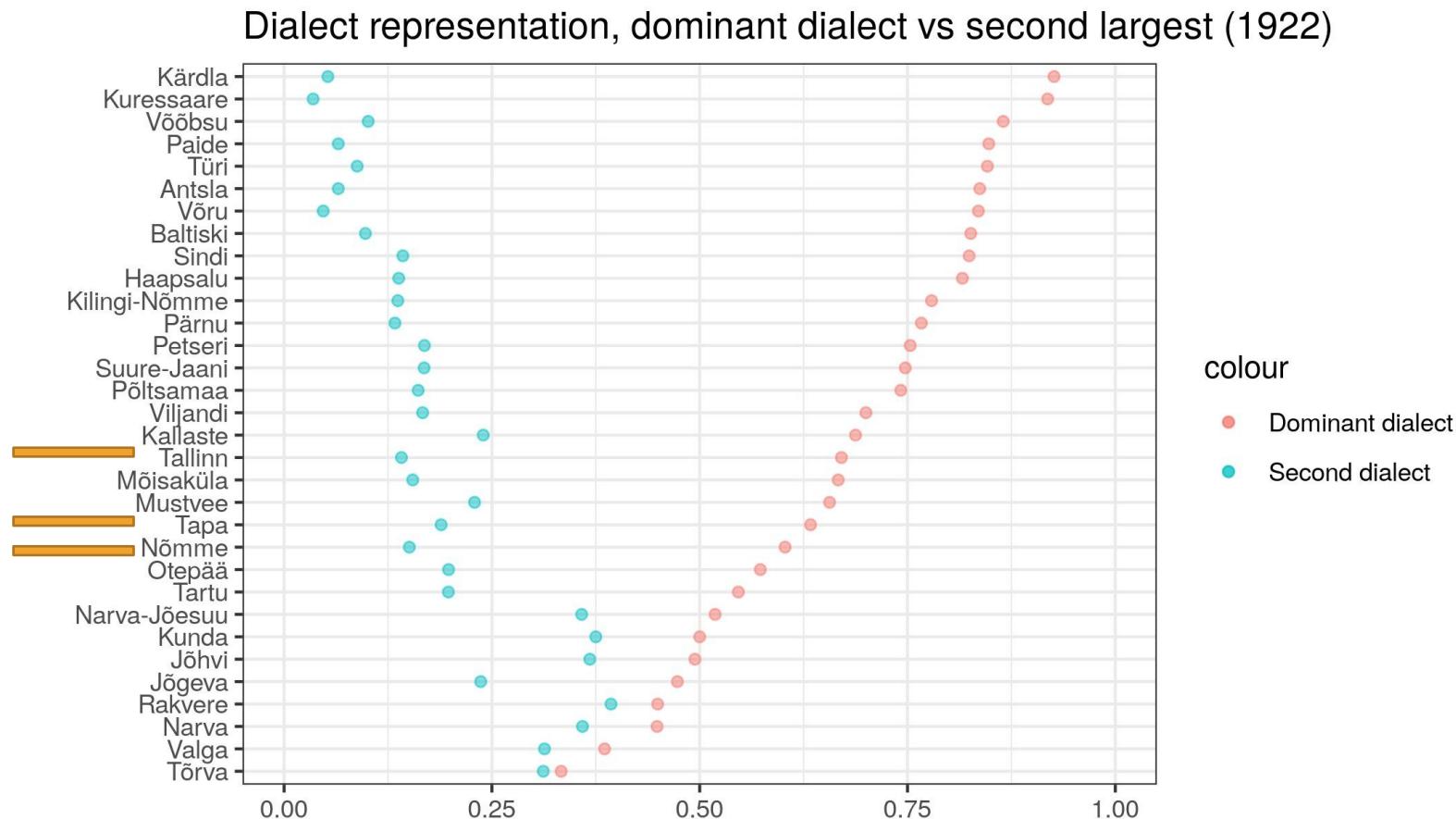


Where did they come from

Origin of inhabitants, same town vs same county (1922)



Dialect contacts



Case 2: Tradition vs innovation

Sources

Estonian National Bibliography

Number of publications, number of authors

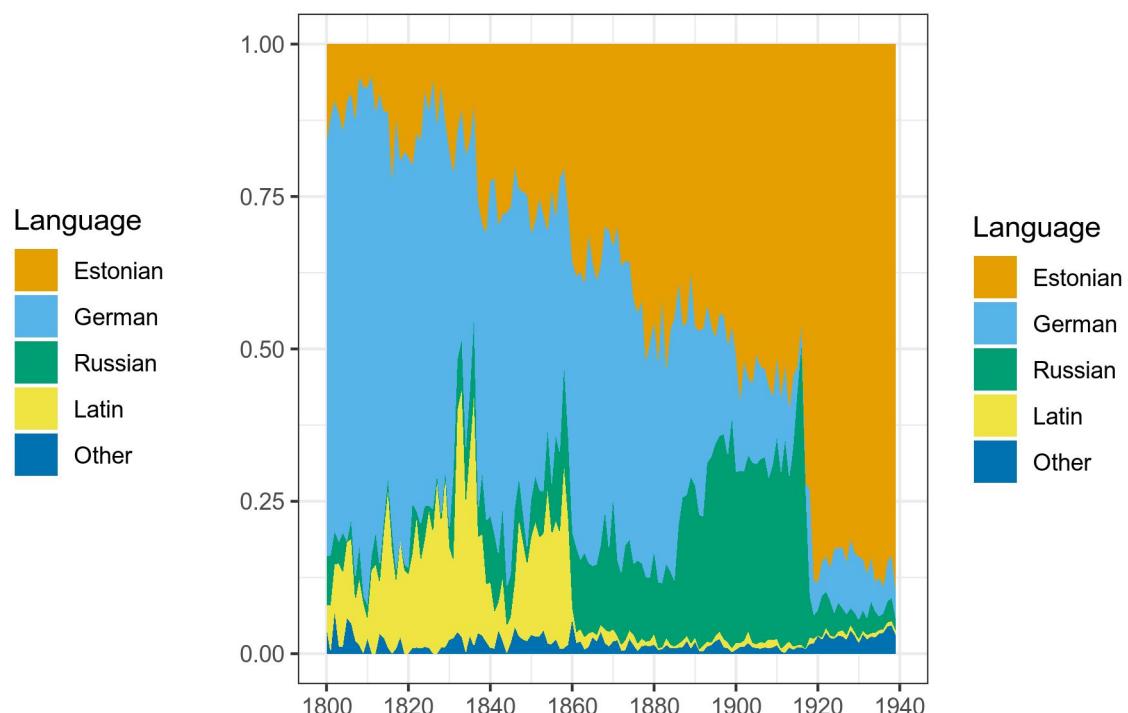
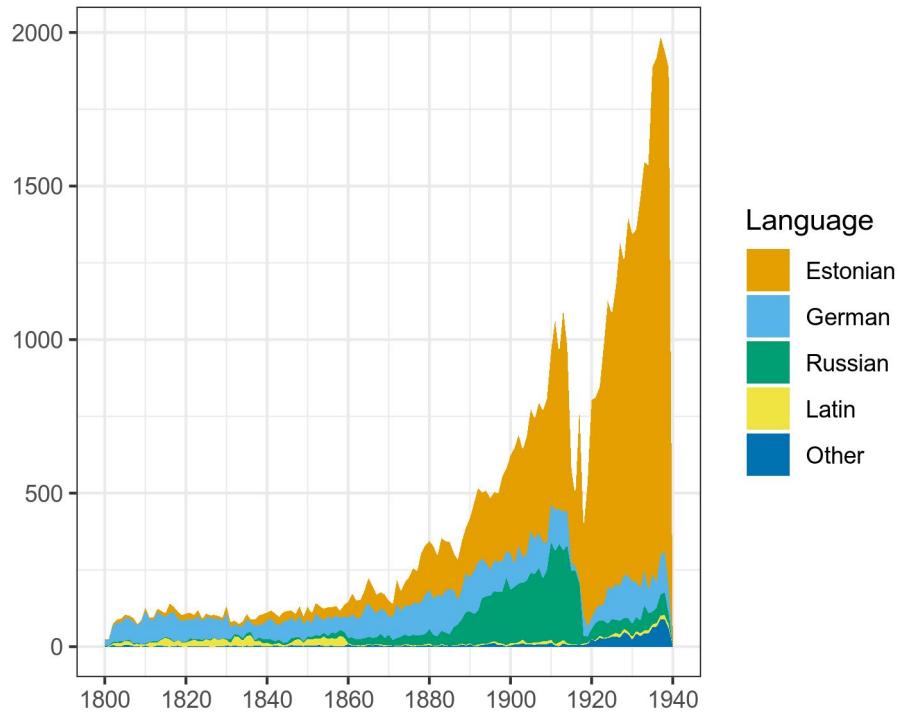
Main language of publication title

Automatically detected (cld3 in R)

Demographic data

Size of the native Estonian population

Number of publications

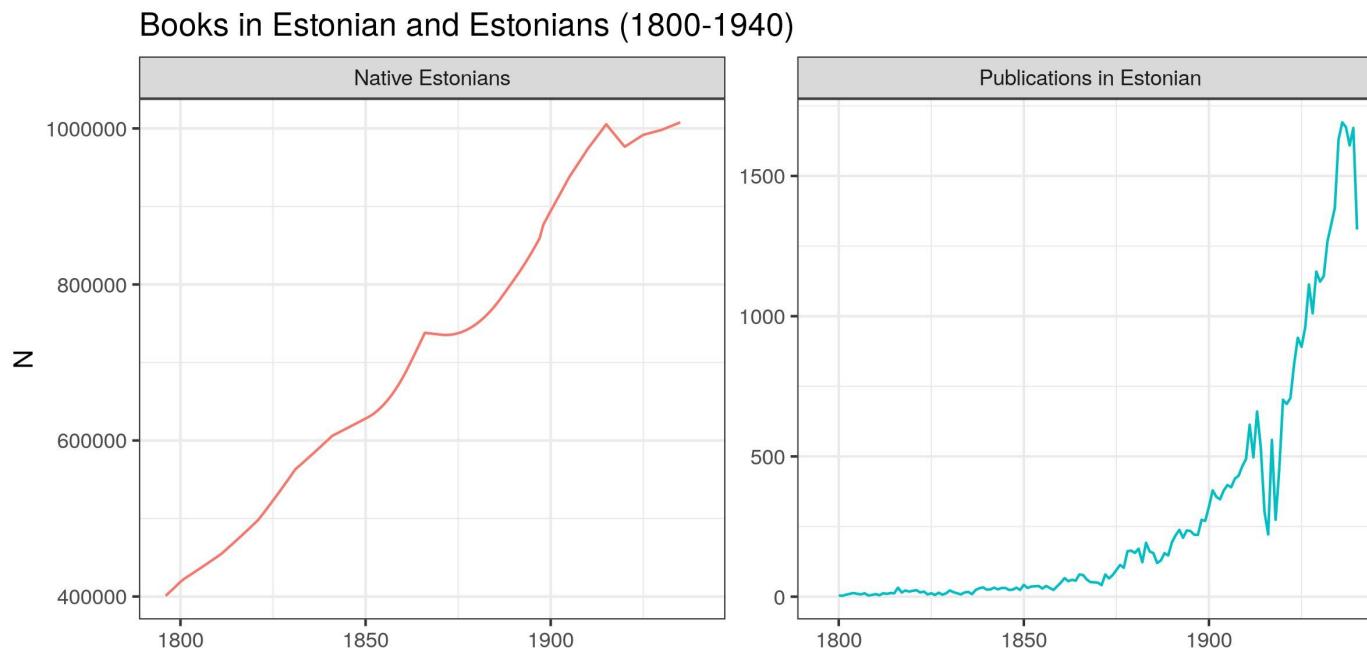


Source: Estonian National Bibliography + cld3 in R for language detection

Population and publications

Both, the number of speakers and the number of publications, grow.

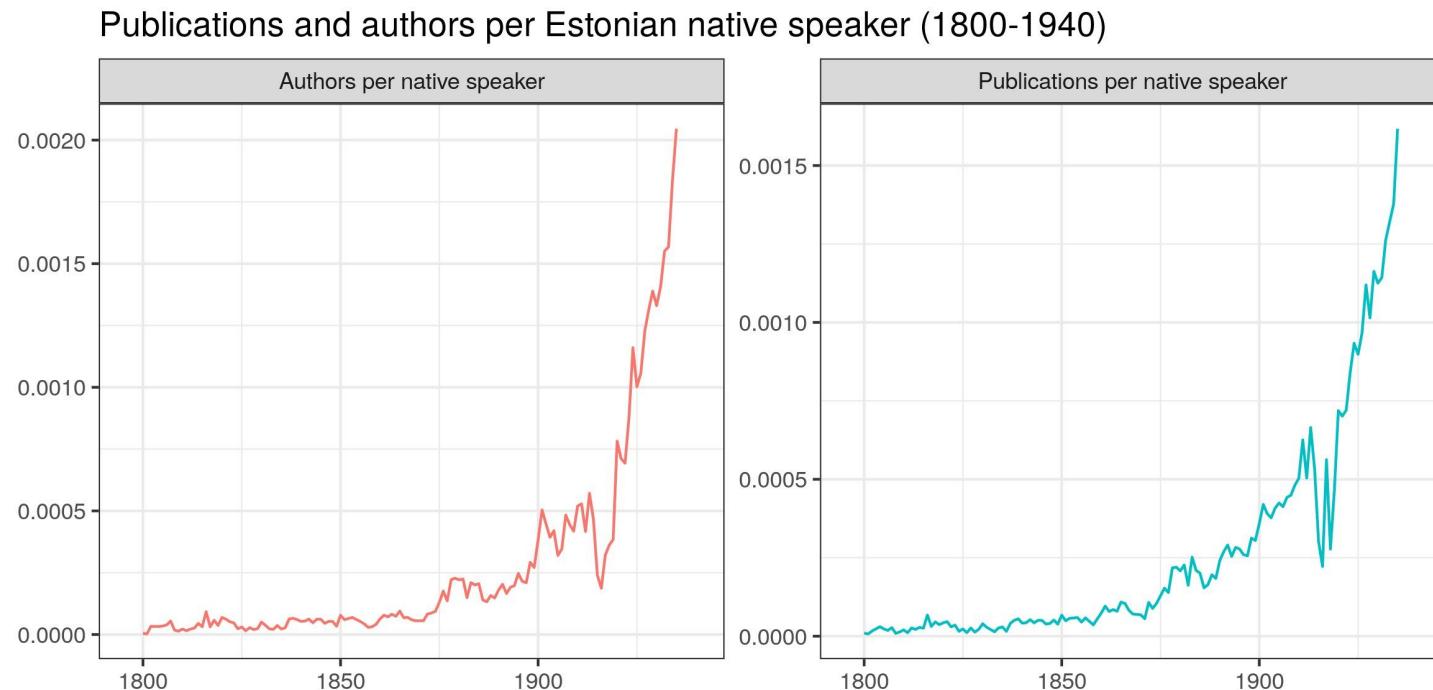
Publications grow more rapidly and later



Books/authors per capita

Publications and authors per native speaker

Rapid growth, doubles every ~20 years



Case 3: Dialects of the writers

Sources

Estonian National Bibliography

People connected to the publication

Authors, translators, editors, publishers (original authors of translations were excluded)

Linked biographies (VIAF, Wikidata, ISIK, DNB)

~10,000 relevant people, ~3,000 w biographical info

~700 could be linked to a birthplace

Geoinfo in databases, Geonames, dialect maps



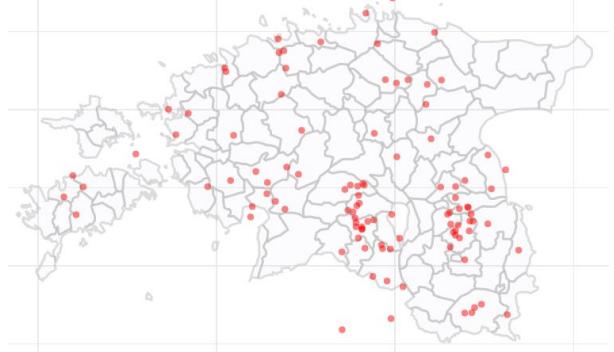
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R	F	C	D	E	G	I	K	L	M	N	O	P	Q	R
11640	TRUL			Loopt, Johannes	Loopt, Johannes				1890-1943	Sal,organ.	http://id.loc.gov/id/info/300368714			
11641	TRUL			Kõiste, Jüri	Kõiste, Jüri				1889-1951	Sal,organ.	http://id.loc.gov/id/info/300368714			
11642	TRUL			Kõiste, Eduard	Kõiste, Eduard				1889-1951	Sal,organ.	http://id.loc.gov/id/info/300368714			
11643	TRUL			Kõiste, Neeme	Kõiste, Neeme				1870-1965	Sal,organ.	http://id.loc.gov/id/info/300368714			
11644	VEETP	4053		Loodusmaja	Loodusmaja				1870-1972	Sal,organ.	http://id.loc.gov/id/info/300368714			
11645	TRUL			Looduse, Eduard	Looduse, Eduard				1870-1965	Sal,organ.	http://id.loc.gov/id/info/300368714			
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11650	VEETP	4057		Looduse, August	Looduse, August				1877-1972	Sal,organ.	http://id.loc.gov/id/info/304861012			
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11655	VEETP	3319		Looduse, August-Petroleum	Looduse, August-Petroleum				1877-1972	Sal,organ.	http://id.loc.gov/id/info/304861012			
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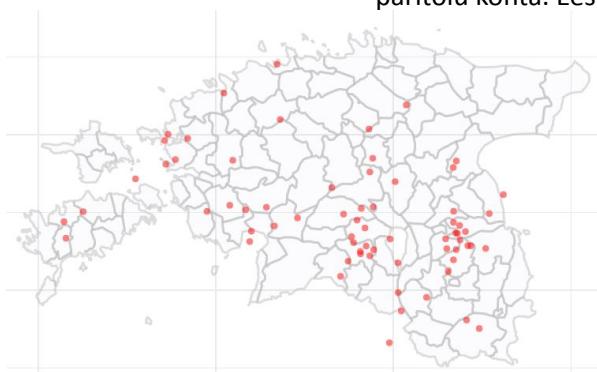
Birthplaces of the literati



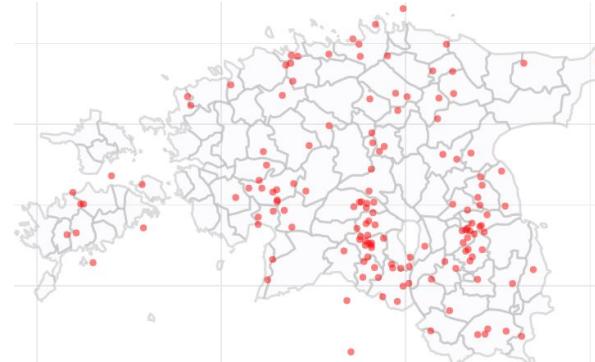
Birthplaces 1840-1860



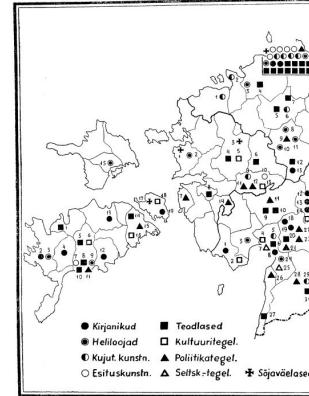
Birthplaces 1860-1880



Birthplaces 1850-1870



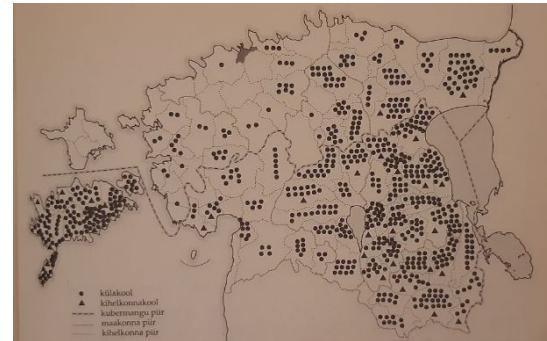
Birthplaces 1870-1890



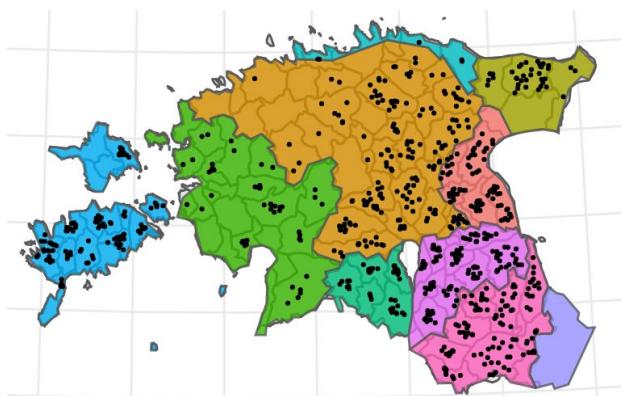
Miks, A. 1938. Märkusi Eesti kultuuriteglaste päritolu kohta. Eesti Kirjandus 3: 129-141

Birthplaces animated visualization

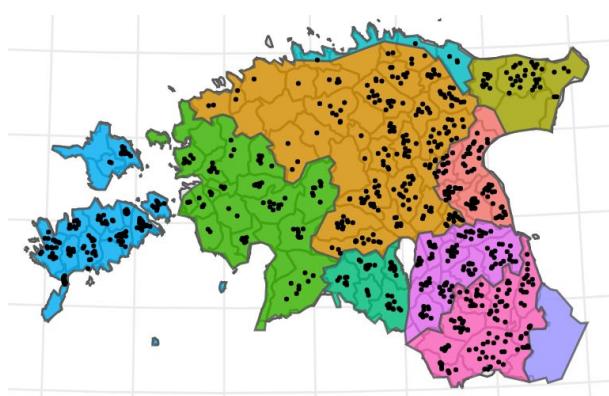
Public schools in 19c



Public schools in 1851 (Andresen 2003)



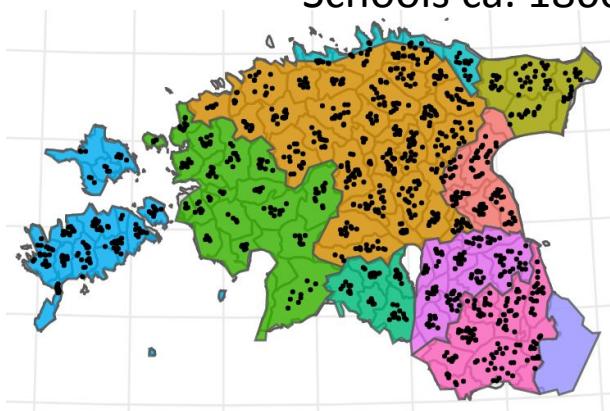
Schools ca. 1850



Schools ca. 1860



Schools ca. 1870



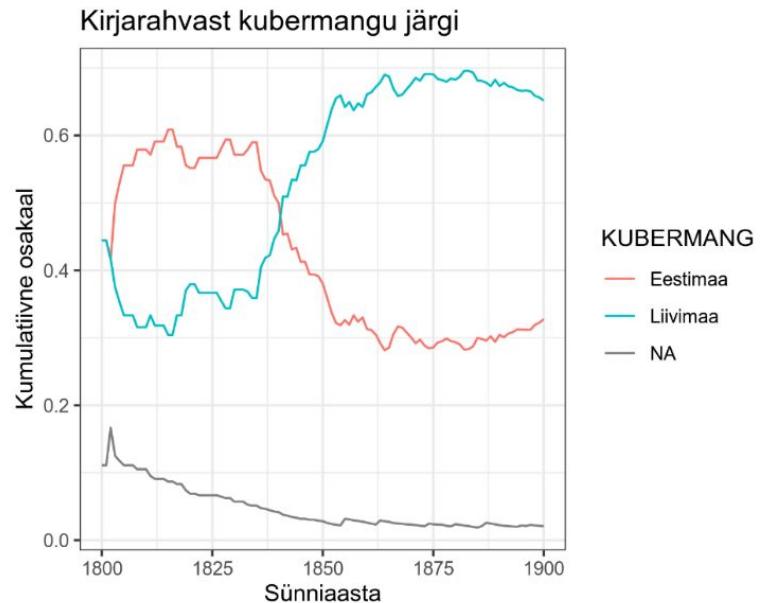
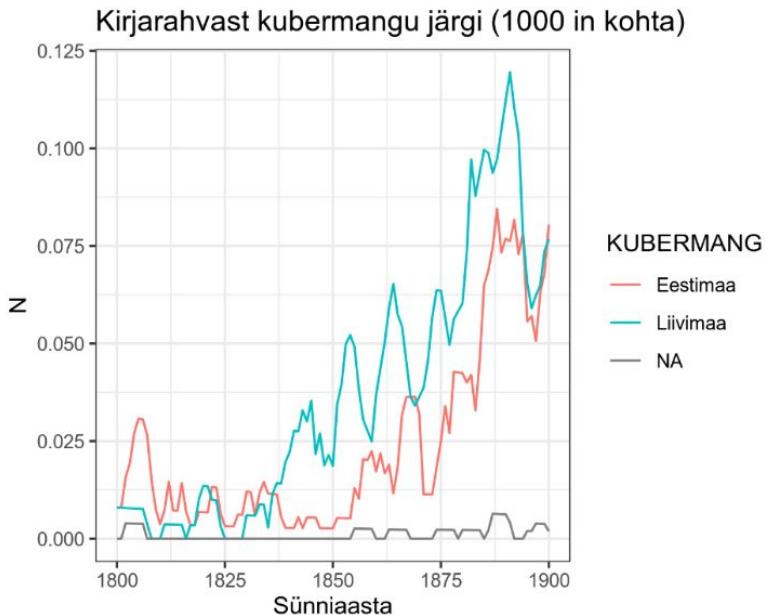
Schools ca. 1880

[Schools animated visualization](#)

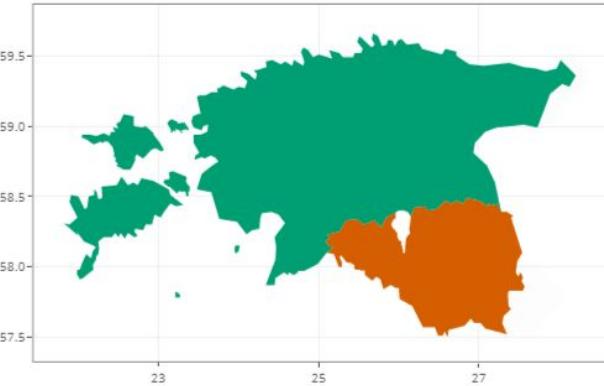
Literati per capita

From around 1840, Livonia dominates per capita.

Cumulatively 70% since ca. 1850.

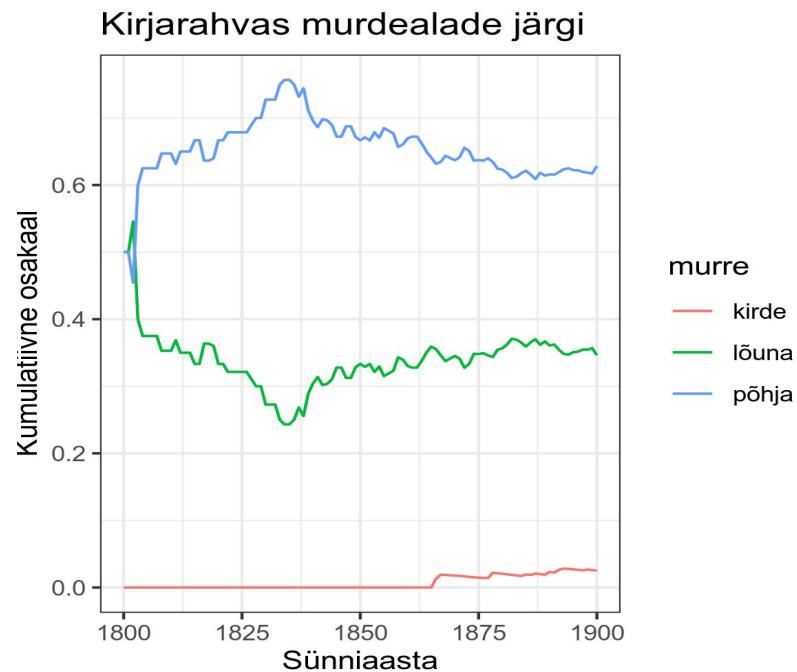
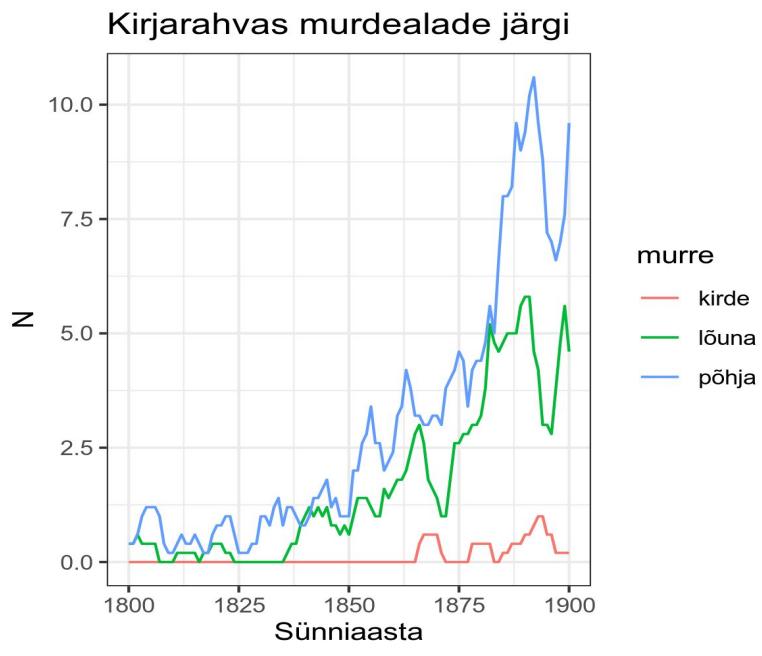


Native dialect ratios



Main dialects: Northern vs Southern

Northern dialect is most frequently the native dialect
(despite Southern dialect being in Livonia)



In sum

Results

Migration: lots, but mostly within dialect area

Abrupt growth in community: bias towards newcomers?

Shift in regional dominance, but not dialect dominance

Methods

Can combine bibliographic, biographic, demographic, linguistic data to understand past dialect contacts.

Thank you!