

The geography of actualisation: mapping the restructuring of the genitive in the history of Norwegian

① Hw mæn thm sam ths brp see eller her
fremis iat gulstern. nexts. at ja k
has seet. thooz halvass Bader Broder min
sua mykinn luth to a k otthe i fyrakabg
Beyer v kdras prelt z hemholt por
quazum mane pra mit z mint cringen
z under pnedd thm halvass z lumb ex
vinnia. H kimbelt th at ghav up bo
it helan peng z halvan ept thy so vort
kdy war stit samnde her om sarta
i lagretth men fram halgmind z halvader
i lagretth men fram halgmind z halvader

Actualisation, causation and timing

- since Timberlake (1977), building Weinreich, Labov & Herzog (1968), we've used the tripartite actuation-actualisation-diffusion model to think about change
- but it's not always totally clear what should count as one change (actuation+actualisation) and what should count as two separate changes
- this boils down to a question of causality:
 - a change might be a direct and necessary consequence of some other change (actualisation)
 - or the causal relationship might be indirect or looser (one change makes another more likely, but is not inevitable, or one change is a necessary but not sufficient cause of another)

The genitive in Germanic

- English, Swedish, Danish and Norwegian (and to a lesser/different extent Dutch) have a striking set of changes affecting the genitive in common:
 1. marking is regularised across paradigms until only the marker which was previously the strong masculine/neuter genitive singular ending remains: $-(V)s$;
 2. genitive marking becomes the same in the singular and plural;
 3. agreement for genitive within the NP is lost;
 4. genitive marking comes to be expressed at the right edge of the phrase...
 - initially this has to be on the head noun, which is phrase final...
 - ...but then it becomes possible for this to be on whatever element is phrase final (i.e. at this point we can say that the $-(V)s$ morpheme becomes a phrasal affix);
 5. lexical genitives are lost so that the $-(V)s$ morpheme is really a possessive marker rather than truly a genitive case marker.

The genitive in Germanic

DN III.1, around 1220:

| | | | |
|--------------|---------------|---------------|-----------------|
| <i>hin-s</i> | <i>helg-a</i> | <i>Olaf-s</i> | <i>konung-s</i> |
| the-GEN.SG | holy-GEN.SG | Ólaf-GEN.SG | king-GEN.SG |

Aftenposten, 3rd of Juni 2015:

| | | | |
|--------------|-------------|------------|-------------------|
| <i>[kong</i> | <i>Olav</i> | <i>den</i> | <i>hellige]-s</i> |
| [king | Olav | the | holy]-POS |

Past research

- Norde (1997) on Swedish:
 - there is an early reanalysis of masculine/neuter genitive singular -s to a clitic
 - almost all other changes (levelling of other endings, possibility of group genitives, loss of concord) are the gradual actualisation of this change

Past research

- Allen (2008) on English:
 - levelling to -es, loss of concord, shift to prenominal order, shift to once-only final marking are all necessary *preconditions* for the reanalysis to clitic
 - and only the rise of true group genitives is a consequence of it
 - (Allen, along with Delsing 1999, 2001, also contests Norde's analysis of Swedish)

Research question

1. What are the relationships among these changes? Are they closely causally linked (actuation+actualisation), or only loosely so?
2. Looking at the history of Norwegian specifically - does the Norwegian evidence more resemble Allen's account for English, or Norde's for Swedish?

The corpus

- The *Diplomatarium Norvegicum* is the collection of all charters from or about Norway, the vast majority dating between 1250 and 1550
- Using the *DN online* (Blaxter 2017a), a version of the DN tagged with metadata including localisation for 13k texts
- Here restricting searches to original (non-copied, non-forged) texts

Methods

- Raw distributions of linguistic features in space in these texts are typically very noisy - here using simple moving averages to plot change over time
- and kernel density estimation to create visualisations of diffusion in space over time (cf. Blaxter 2017b, Blaxter & Kinn 2018, Blaxter forthcoming; for use in synchronic dialectology, see Rumpf et al. 2009, Glaser & Bart 2011, Sibling et al. 2012)

The variables

- Looking at three of the changes (one each for **form**, **distribution** and **function**)
- in each instance restricting to a specific context to facilitate searching and quantification:
 - **the spread of -s** to nouns which would previously have taken genitive singular in *-ar* in the first elements of matro/patronymics (*Þrondarson* > *Þrondsson*)
 - the **loss of concord for genitive** between the article and the noun (*biscopsens* > *biscopens* “the bishop's”)
 - the **shift from genitive to dative/accusative** for objects of the preposition *millum* “between”

Hypotheses

- If Norde's account fits:
 - all changes are actualisation of early reanalysis, so all should have similar timing
 - and all should have similar geography (reflecting the geography of the underlying reanalysis)
- If Allen's account fits, on the other hand:
 - these are all independent changes, and so needn't have similar timing or geography

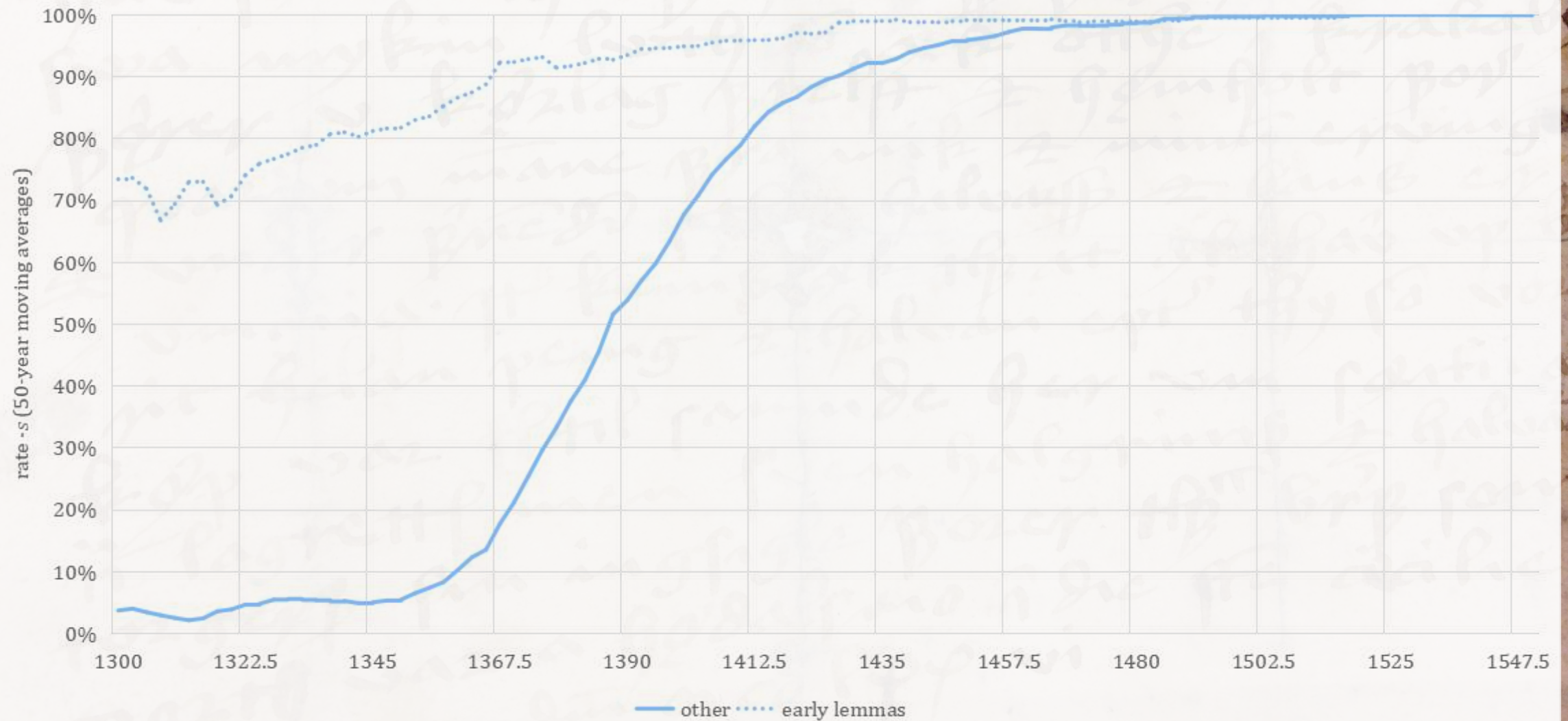
Levelling to -s

- In Old Norwegian, there are several main genitive endings:
 - -s (strong neuter/masculine singular)
 - -ar (strong feminine singular, some masculines)
 - -a (weak masculine/neuter singular)
 - -u (weak feminine singular)
 - -a (strong plural)
 - -na (weak plural)
- in Middle Norwegian, these are progressively levelled to just -s
- Here examining the replacement of -ar by -s for irregular strong masculines:
 - *Haconar sun* 'Hákon's son' (DN IV.2, 1271) > *Hakons son* 'Hákon's son' (DN I.1005, 1501)
 - *Barðar dotter* 'Bárðr's daughter' (DN I.117, 1308) > *Bardz dotter* 'Bárðr's daughter' (DN II.1016, 1501)

Levelling to -s

- Examined 46 different names compounded with *sonr* and *dóttir*, all of which have compounds in *-ar-* at the beginning of the period covered and *-s-* at the end
- On exploring these individually, it turns out that there are two distinct groups:
 - *Hávarðr, Hallvarðr, Þórgíls, Andres, Matthius* all shift early (that is, all *s*-stems plus names in *-varð-*) [1846 tokens]
 - all others basically shift as a group (there seems to be some conditioning within this: monosyllables [1580 tokens] shift later than non-monosyllables [4769 tokens])

Levelling to -s



-s-ins > -ins

- In Old Norwegian, there is concord between the noun and the enclitic definite article for genitive case; this concord is lost during the Middle Norwegian period

– *dóm-s-in-s* > *dóm-Ø-in-s*
judgement-GEN-DEF-GEN > judgement-0-DEF-GEN

- *domsens* 'of the judgement' (DN III.590, 1408)
- *domennss* 'of the judgement' (DN XXII.541, 1564)

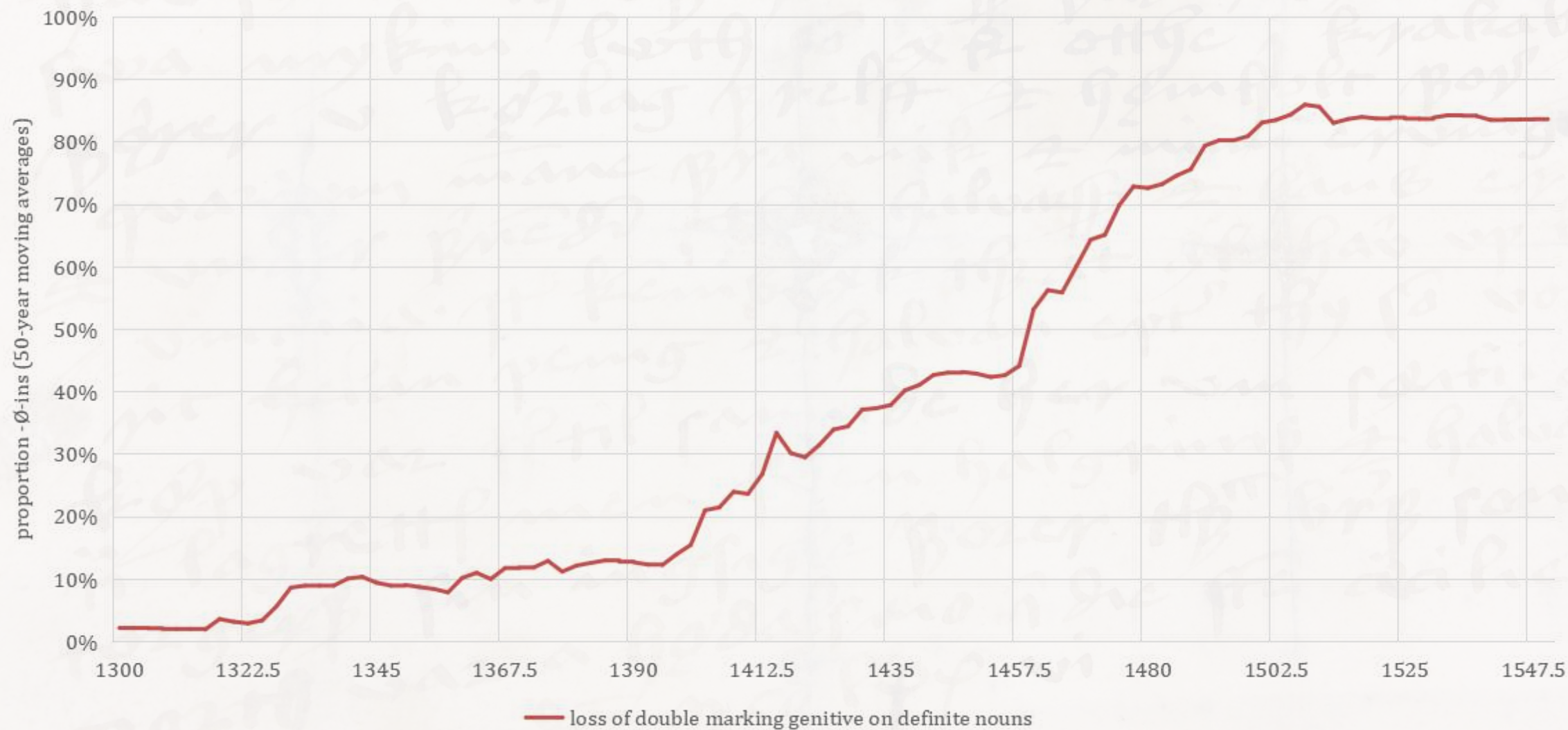
– *ríki-s-in-s* > *ríki-Ø-in-s*
realm-GEN-DEF-GEN > realm-0-DEF-GEN

- *rikissins* 'of the realm' (DN V.46, 1305)
- *rikiens* 'of the realm' (DN VI.505, 1447)

-s-ins > -ins

- Examined genitive-marked definite instances of 32 nouns [1682 tokens]
 - Nouns examined are: *akr* ‘arable land’, *arfr* ‘inheritance’, *biskup* ‘bishop’, *biskupsdómr* ‘diocese’, *biskupsstóll* ‘bishopric’, *ból* ‘reclaimed land’, *borð* ‘table’, *bréf* ‘charter’, *djákn/decan* ‘deacon’, *dómr* ‘judgement’, *eng* ‘meadow’, *erkibiskup* ‘archbishop’, *garðr* ‘farm’, *jarl* ‘earl’, *kaup* ‘bargain’, *klaustr* ‘cloister’, *konungdómr* ‘kingdom’, *konungr* ‘king’, *land* ‘land’, *lögmaðr* ‘lawyer’, *prófastr* ‘provost’, *prófastsdómr* ‘office of provost’, *ríki* ‘realm’, *skip* ‘ship’, *spítal* ‘hospital’, *staðr* ‘place’, *stóll* ‘seat’, *sveinn* ‘boy’, *syslumaðr* ‘bailiff’, *teigr* ‘strip’, *þing* ‘meeting’, *þriðjungur* ‘third’

-s-ins > -ins



Loss of lexical genitives

- In Old Norwegian there are verbs and adpositions which take genitive objects; in Middle Norwegian, these shift to taking datives/accusatives

– *millum* *kirki-u-nnar* *ok* *Sebu-s*
between church-GEN-DEF.GEN and Sebu-GEN

“between the church and Sebu” (DN II.110, 1311)

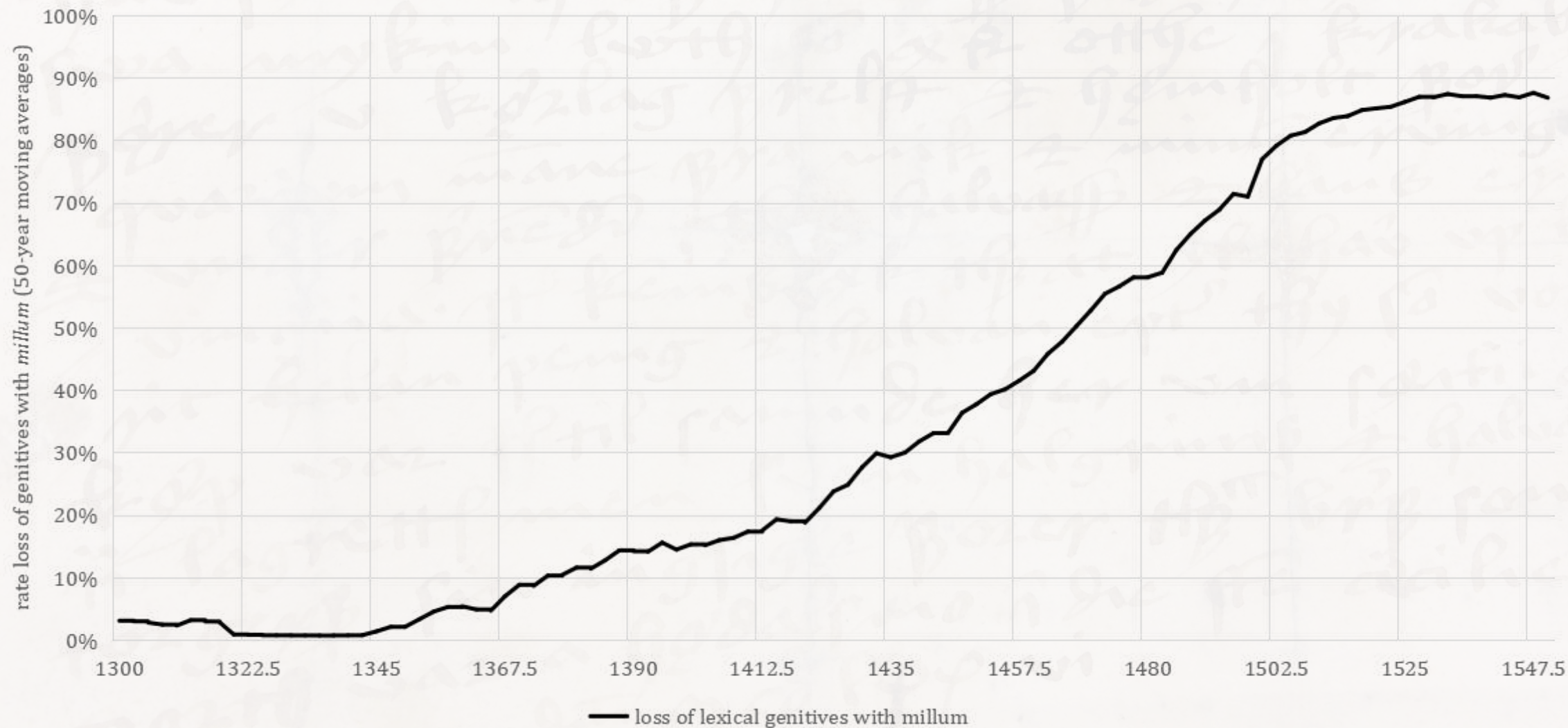
– *emellom* *kron-en* *oc* *kirck-en*
between crown-DEF.ACC and church-DEF.ACC

“between the crown and the church” (DN IX.478, 1513)

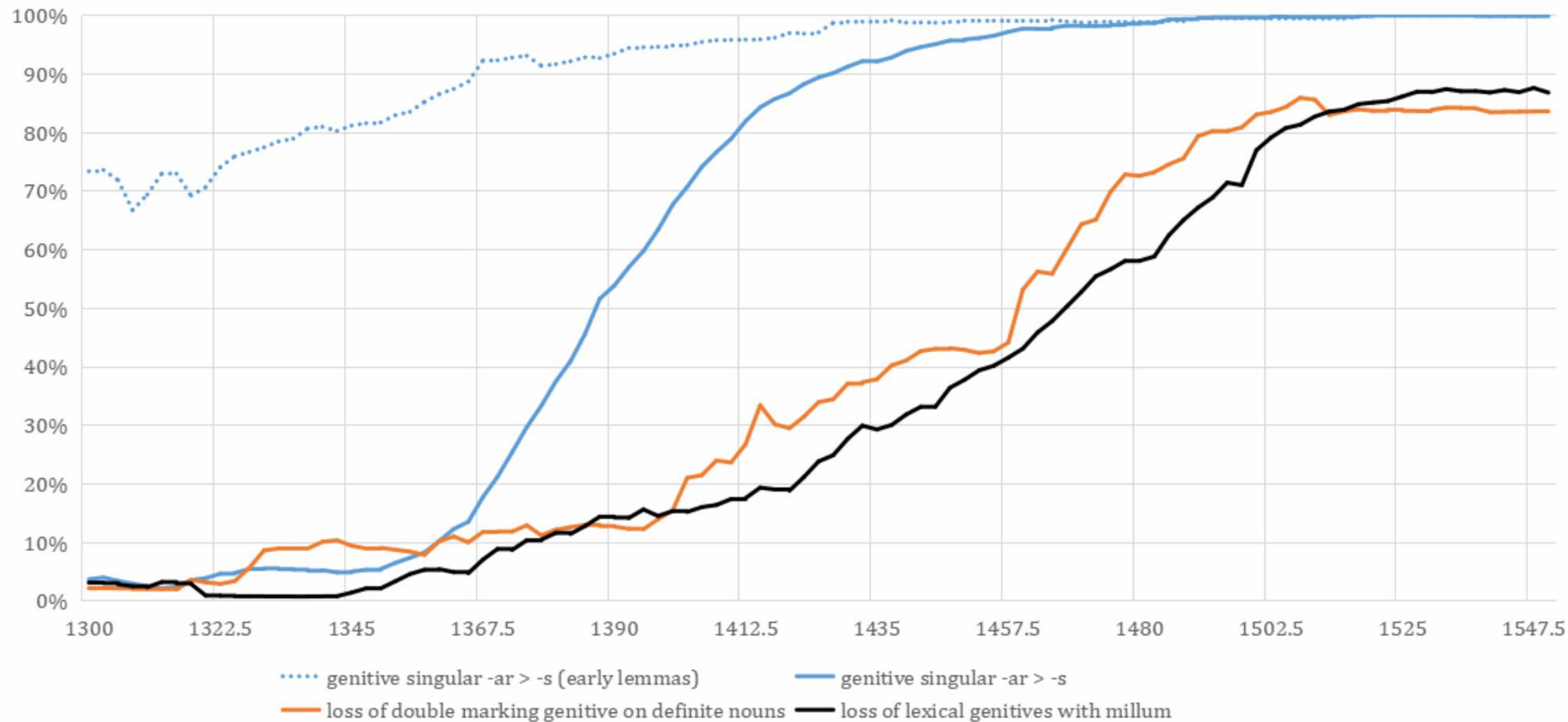
Loss of lexical genitives

- Looking just at the adposition *millum* (and its compounded variants *í millum* and *á millum*) “between”
- Found all instances of this preposition in the corpus and classified texts into those in which at least one element in an object of *millum* was unambiguously genitive [692 texts] vs. those in which there were objects of *millum* which were unambiguously non-genitive [773 texts]

Loss of lexical genitives



Relative timings



Relative timings

- This seems to suggest that the spread of -s as an inflectional marker of genitive came first, creating the necessary conditions for the later changes
- The fact that the spread of - \emptyset -ins and the loss of lexical genitives seem to happen with extremely similar timing suggests that we can perhaps see them as sharing a cause - direct consequences of a reanalysis to phrasal affix? Or is the causal link looser, and we should see this instead as separate changes which levelling to -s made possible but not inevitable?
- Can geographical evidence help to disambiguate?

The spread of -s

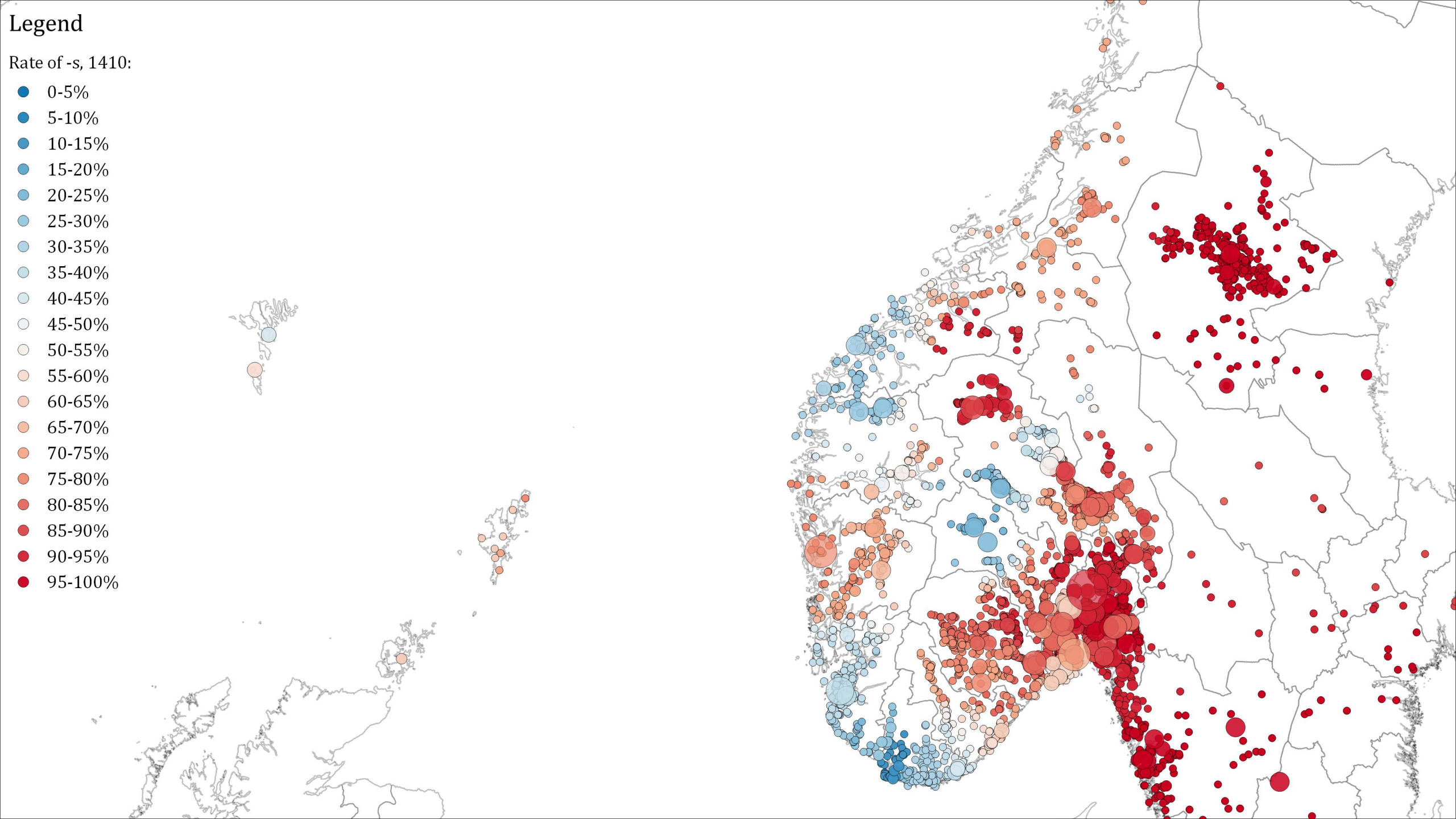
- Levelling to -s diffusion visualisation:
<https://youtu.be/IjLFxAhbfoo>
- early local noise, but then a coherent pattern:
 - change spreads outwards from the (south) east
 - some gravity model type patterning (change reaches Hamar before the rest of Hedmark, Bergen leads compared with the rural west) but mostly wave diffusion
 - in these data at least, Swedish border areas (Bohuslän, Jämtland) are relatively innovative - it looks like the change reaches Trøndelag and northern Gudbrandsdal via Jämtland rather than from the south
 - most conservative areas are inland highlands (Valdres, Hallingdal) and the northwest coast (Sogn og Fjordane, Møre og Romsdal)

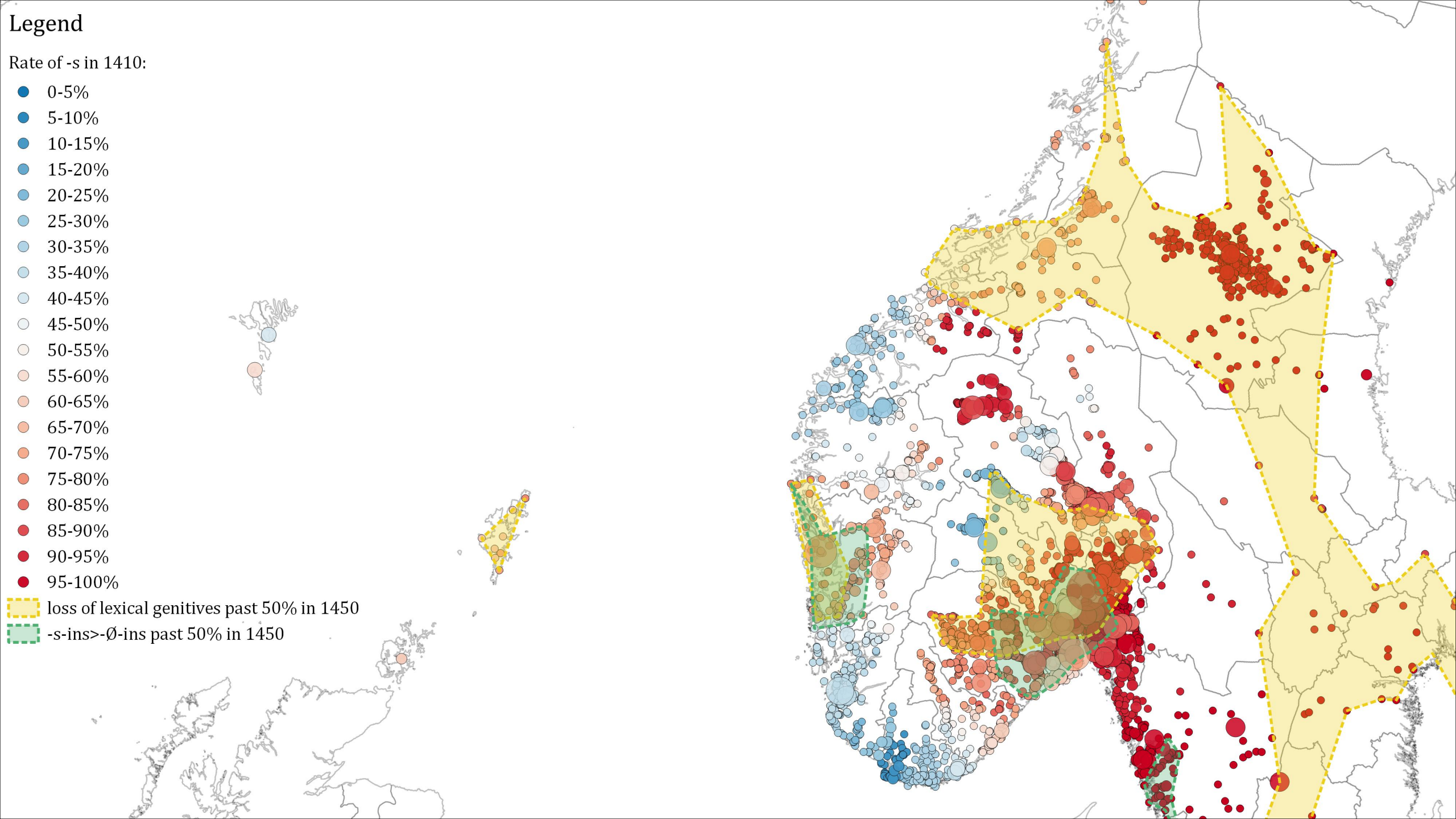
-s-ins > -ins

- Spread of -Ø-ins diffusion visualisation: https://youtu.be/roTR_gS3WN4
- again local noise in the early period, but then a coherent pattern develops:
 - most innovative point seems to be around Svarstad in Lardal, Vestfold, and neighbouring parts of Vestfold and Telemark
 - gravity diffusion from here: innovation jumps to Skien > Tønsberg, Oslo, Bergen, Lödöse > Trondheim
 - and from then (~1470) on, wave diffusion out from these centres
 - southern Bohuslän is between two of the gravity centres and so shifts early, but...
 - generally Swedish border areas are the most conservative (Jämtland, southeastern Hedmark, northern Bohuslän)

Loss of lexical genitives

- Loss of lexical genitives diffusion visualisation:
<https://youtu.be/0c6lHzqgMQk>
- once we get past the early period where the data are quite noisy, there's a relatively coherent story:
 - Oslo, Trondheim and Bergen all are relatively innovative areas in the early stage (~1450)
 - but after this, we see basically a pattern of wave diffusion from the south-east
 - Swedish border areas (Bohuslän, Jämtland) are consistently very innovative
 - most conservative area is the inland south (Telemark, Setesdalen)





Conclusions

- Both timing and geography suggest some kinds of causal relationship among these changes
- the levelling to -s neatly precedes the others, suggesting that it was a necessary precondition for other morphosyntactic changes rather than a consequence of them
- the geographies of the loss of *-s-ins* and the loss of genitive objects of *millum* are consistent with a causal relationship with the levelling to -s: for both, the likely places of innovation and the leading areas throughout the changes are the areas where the levelling to -s had been well-established for decades
- so the account I would propose is:
 - levelling to -s is a necessary precondition to the reanalysis to clitic
 - the other changes (loss of concord, loss of lexical genitives) should then be viewed through the actuation-actualisation model: the reanalysis to clitic follows the levelling to -s, and other changes are the actualisation of this reanalysis

References (1)

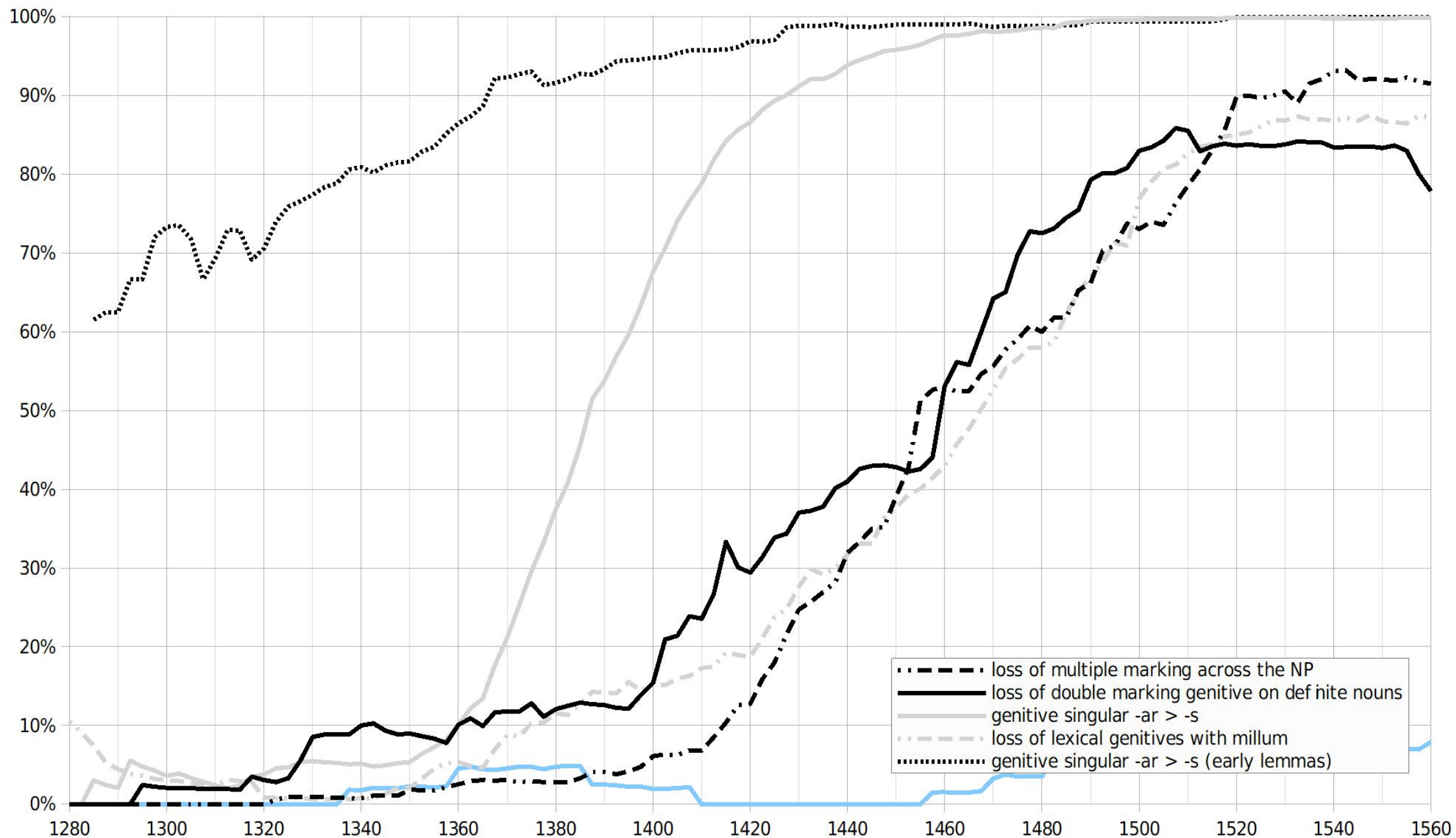
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ek vil þacca yðr þo mykilegha fyrir athuga!

thanks very much for listening!



Multiple marking of genitive weighted text count:

on appositive nouns:

