

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

¶ Ælru monu thun sam hū brøp see æller her
fremis jæk gylfem. nexti. at jæk
hal sœlt. thooß halværß bæder broder min
rea mykini leidh sœl pæt otte i fyrakabß
bæder v færlag freppa t gylfolt boy
quærum manc bra uppa t munti eringar
a under þneccd thun halværß t gylf t
vinnia. It færlagat thut jæk hað up ha
rit heilan vning t halværri ept thy so vort
boy var sttil samnde her von lantia
lægrett men sœl halværri t halvæder

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 causaly 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, Sibler 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 (*Prondarson* > *Prondsson*)
 - **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

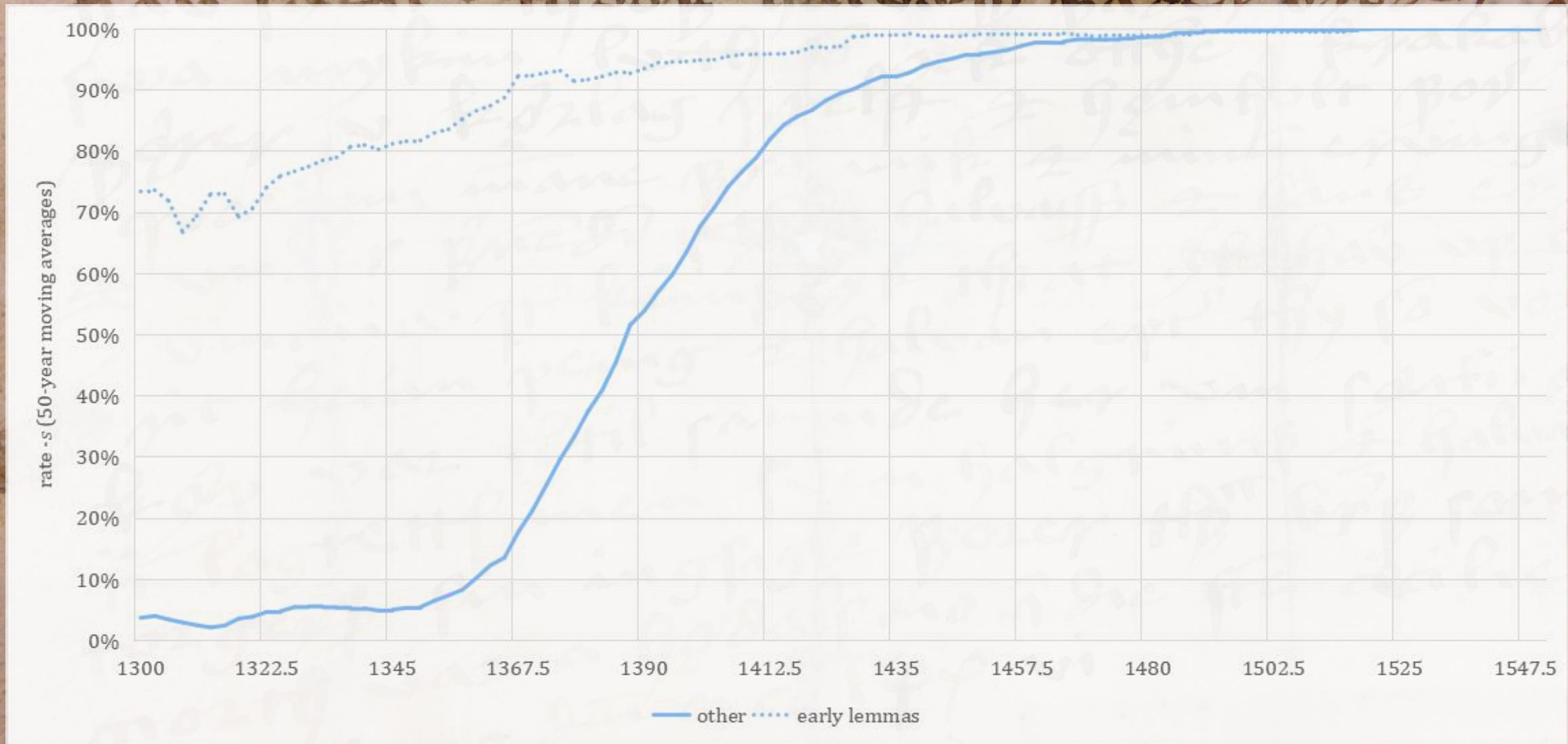
Levelling to -s

- 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 sun' (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*, *Pórgíls*, *Andres*, *Matthijs* 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)

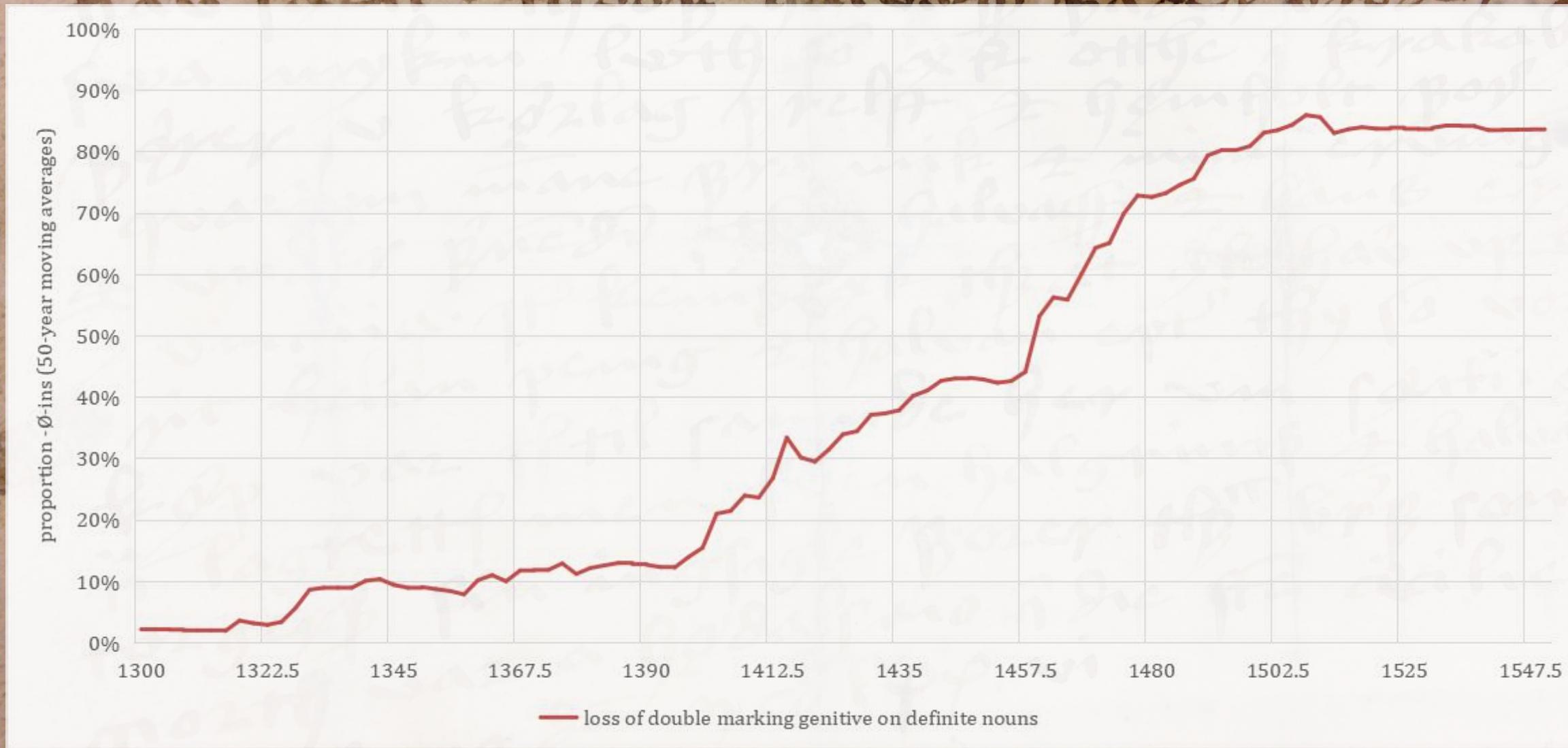
– *ríki-s-in-s* > *ríki-Ø-in-s*
realm-GEN-DEF-GEN > realm-0-DEF-GEN

- *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’, *þófastr* ‘provost’, *þófastsdómr* ‘office of provost’, *ríki* ‘realm’, *skip* ‘ship’, *spítal* ‘hospital’, *staðr* ‘place’, *stóll* ‘seat’, *sveinn* ‘boy’, *syslumaðr* ‘bailiff’, *teigr* ‘strip’, *þing* ‘meeting’, *þriðjungr* ‘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)

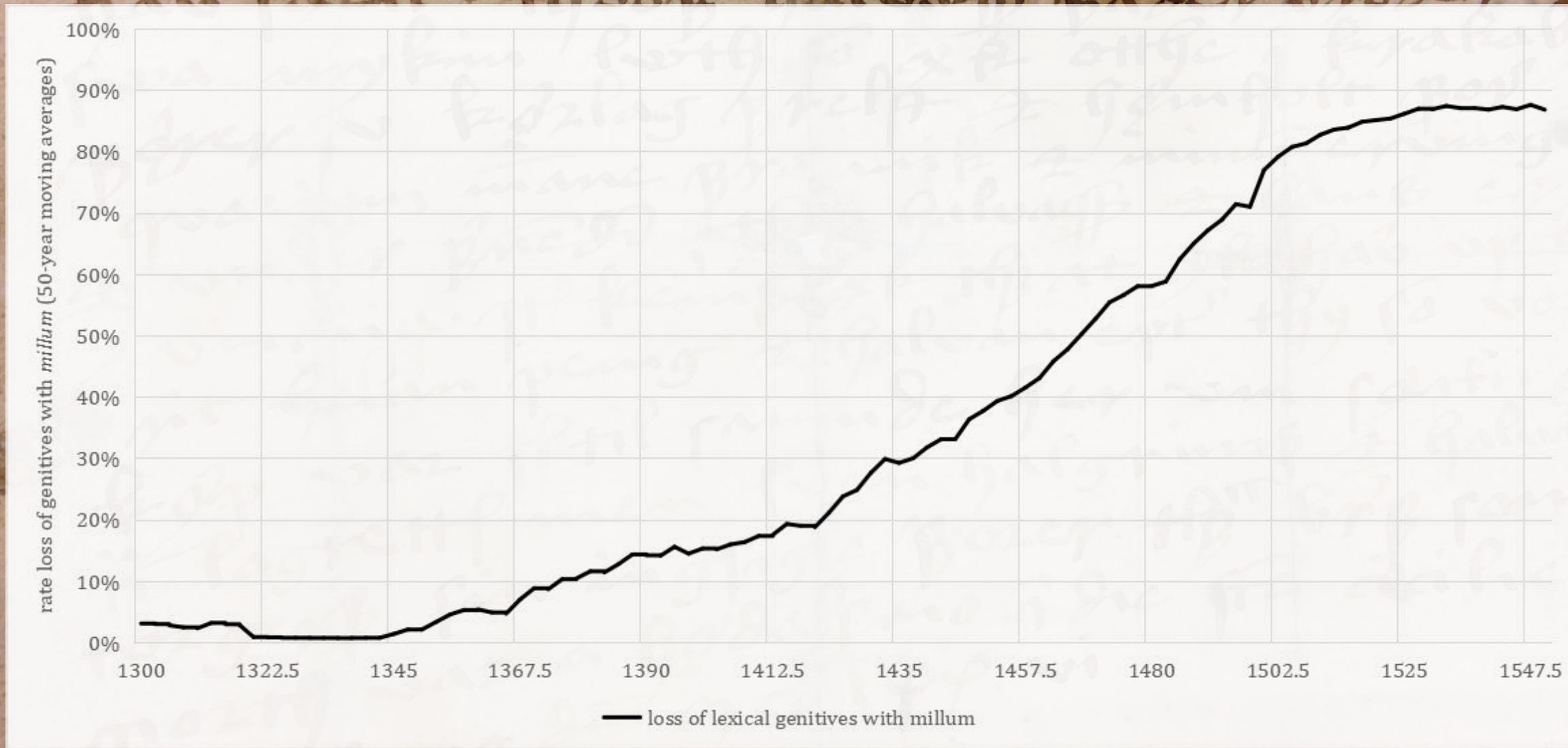
- *emellom* *kron-en* *oc* *kirck-en*
between crown-DEF.ACC and church-DEF.ACC

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

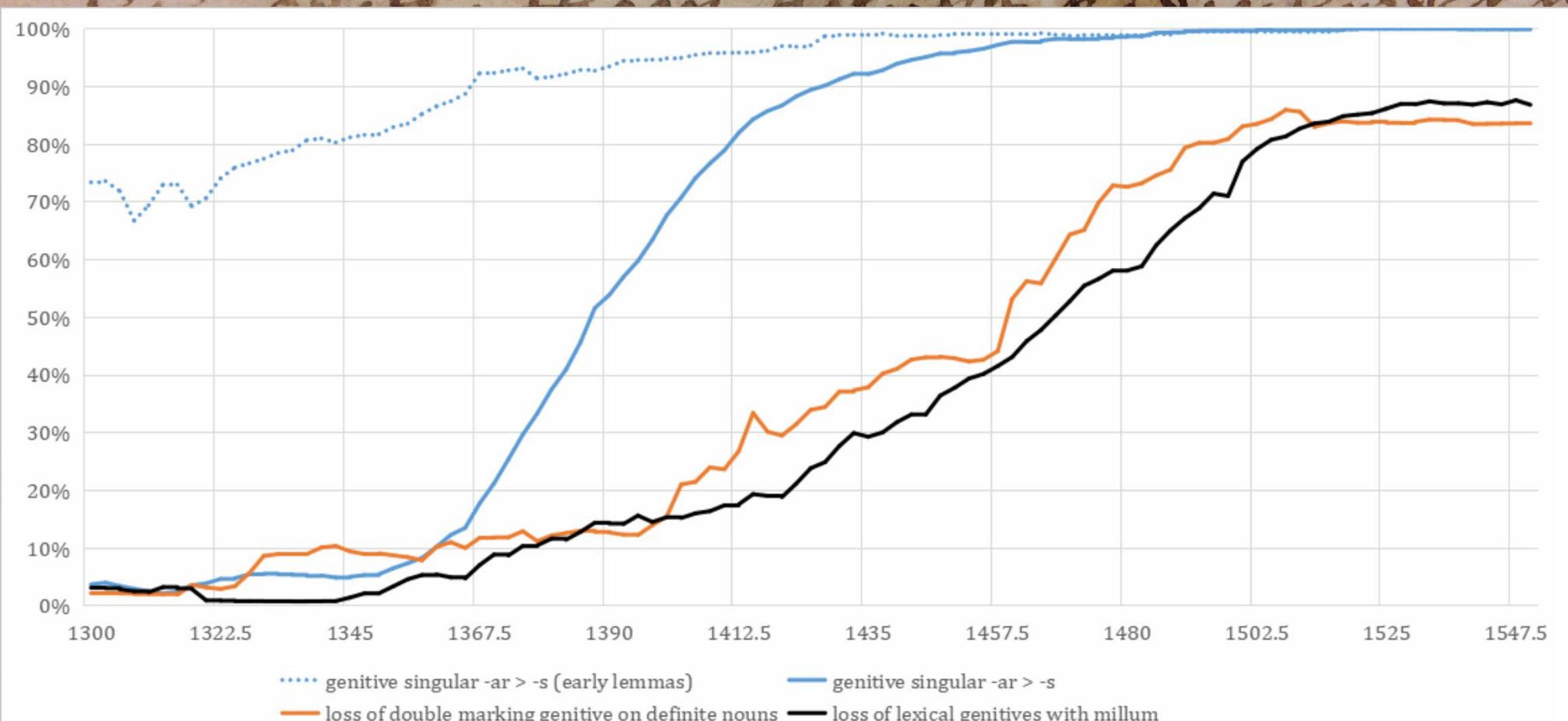
Loss of lexical genitives

- 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 *-Ø-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, L ödöse > 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)

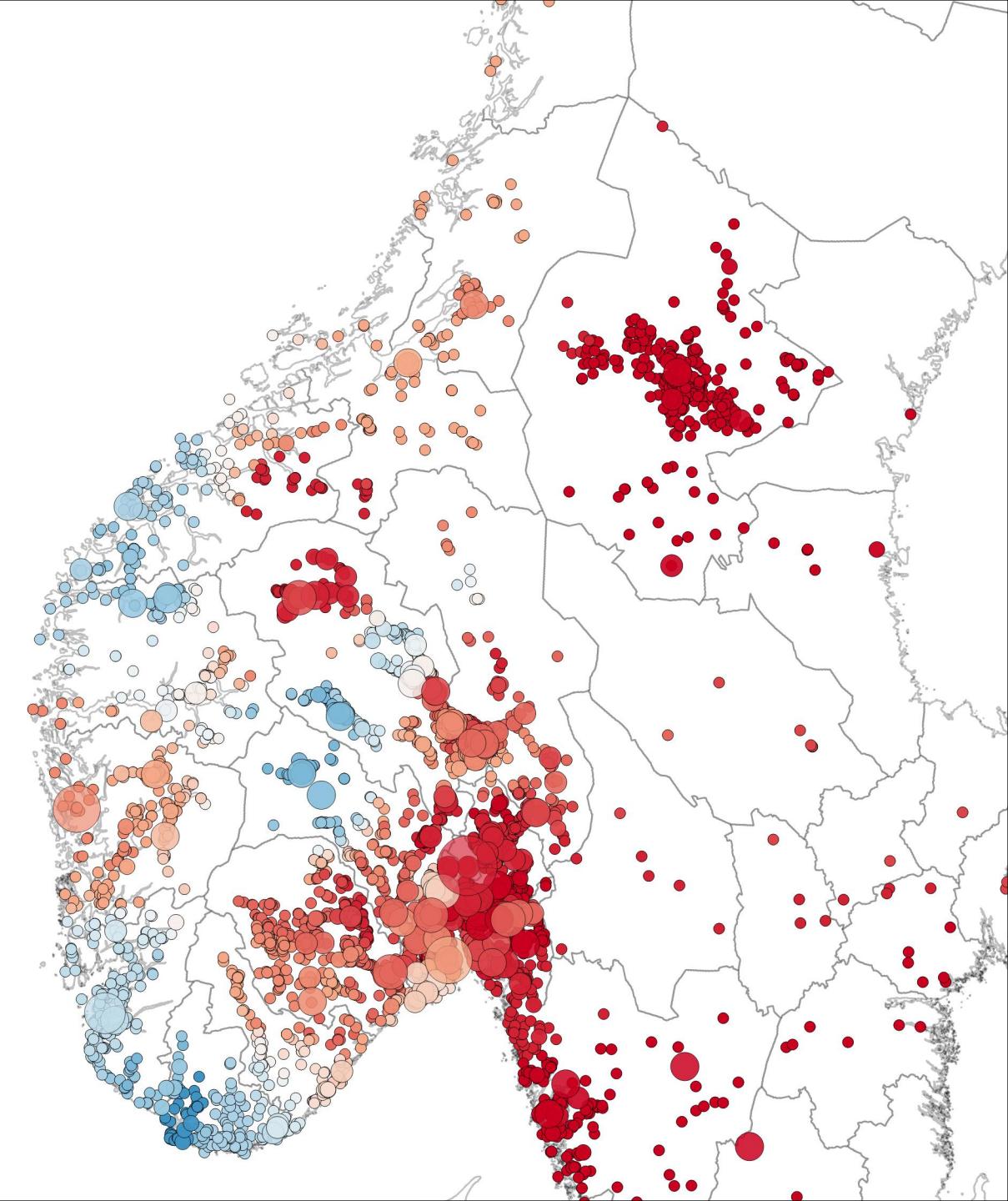
Loss of lexical genitives

- 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, Setesdal)

Legend

Rate of -s, 1410:

- 0-5%
- 5-10%
- 10-15%
- 15-20%
- 20-25%
- 25-30%
- 30-35%
- 35-40%
- 40-45%
- 45-50%
- 50-55%
- 55-60%
- 60-65%
- 65-70%
- 70-75%
- 75-80%
- 80-85%
- 85-90%
- 90-95%
- 95-100%



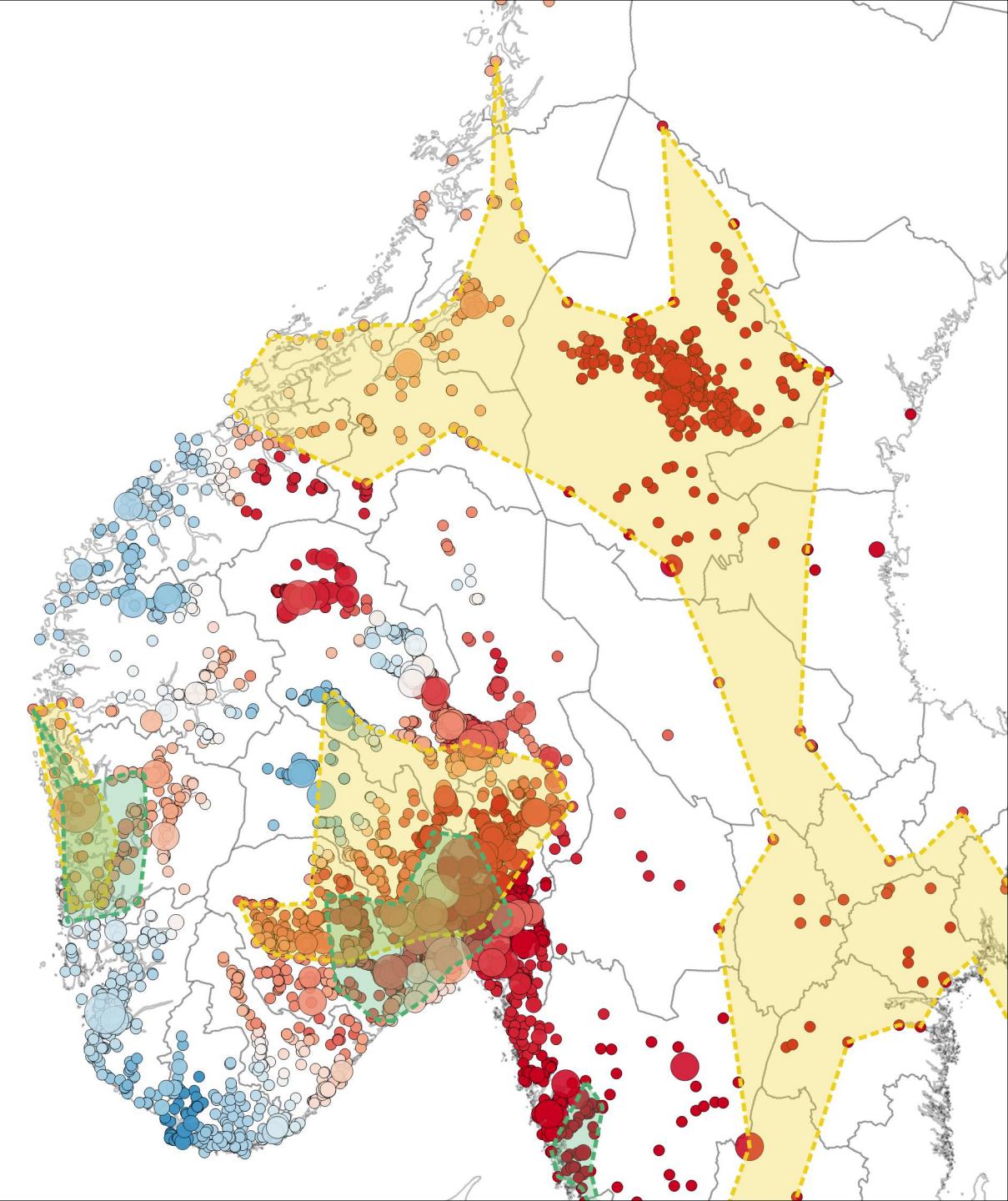
Legend

Rate of -s in 1410:

- 0-5%
- 5-10%
- 10-15%
- 15-20%
- 20-25%
- 25-30%
- 30-35%
- 35-40%
- 40-45%
- 45-50%
- 50-55%
- 55-60%
- 60-65%
- 65-70%
- 70-75%
- 75-80%
- 80-85%
- 85-90%
- 90-95%
- 95-100%

Yellow box: loss of lexical genitives past 50% in 1450

Green box: -s-ins>-Ø-ins past 50% in 1450



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

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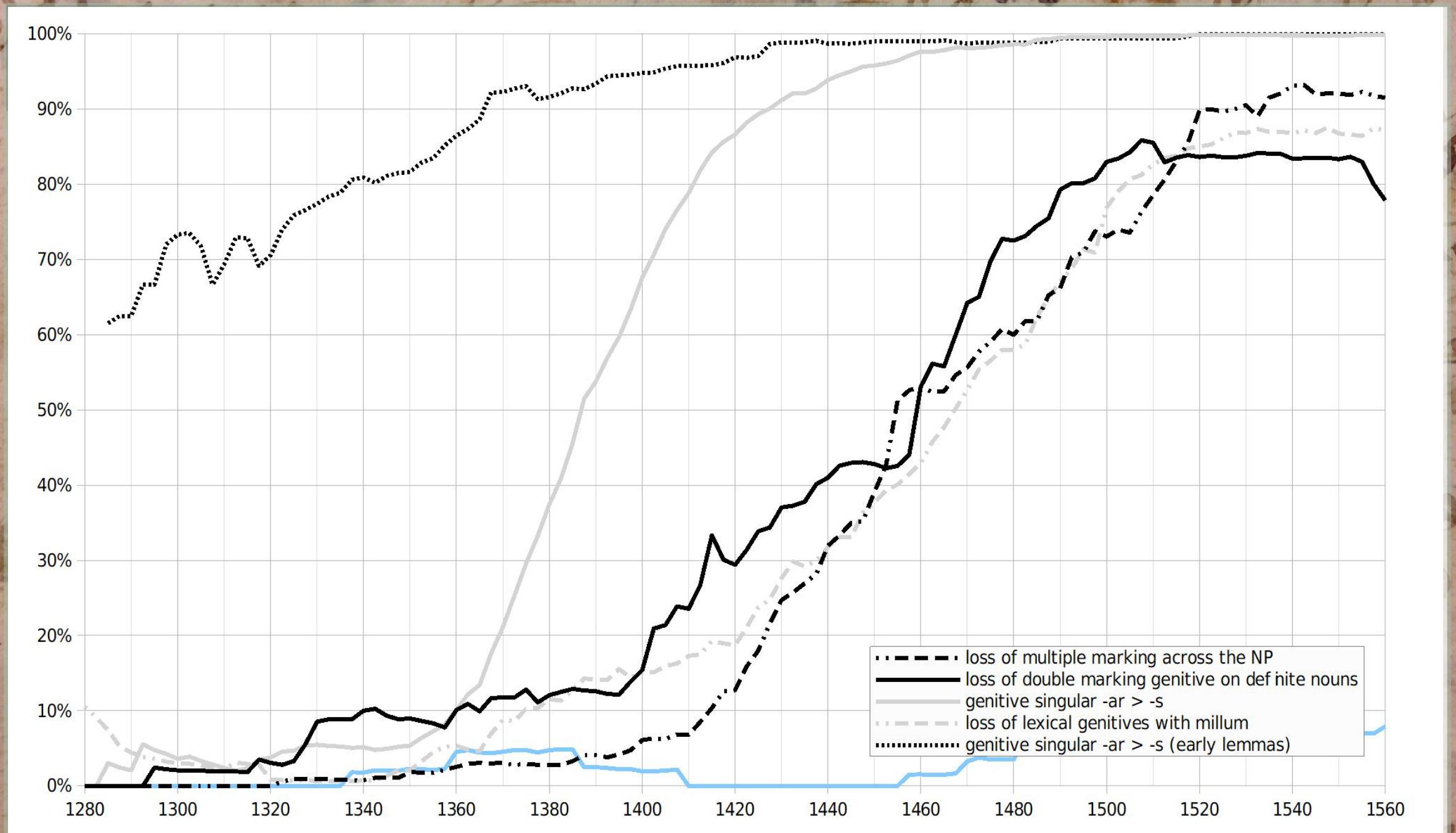
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þeimur jarðar gylfum. meint. at jarð
háð sœct. thooþ galvass báðer broðer minn
sæva mykini leith sœt a ongj. fyrakabó
broðer v. fæðlag frælt a gæmstolt boy

quærum manna gylfum. galvass a gæmst er
a vandr fræld. galvass a gæmst er
vindr. it kæm bæt til at gylfum er
rit fulan pening a galvan eftir thy so vor
aðr vor til gamundar her vori sartia
ek vil bacca yðr bo mykilegha fyrir athuga!

thanks very much for listening!



Multiple marking of genitive weighted text count:

on appositive nouns:

