

A Clash of Methods?

Comparing quantitative and qualitative studies of word order flexibility in historical German

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Quantitative analysis

- statistical
- needs large amount of data
- automated

VS.

Qualitative analysis

- in-depth analysis
- small amount of data
- manual

QuantQual@CEDIFOR (pilot project, 02/17-11/17)

Goal: Quantitative diachronic analysis of the order of dative and accusative nouns in a middle field and linguistic interpretation of the result

Data: Reference Corpus Middle High German (1050-1350) (ReM)

Variation of Dative and Accusative Cases in the Middle Field

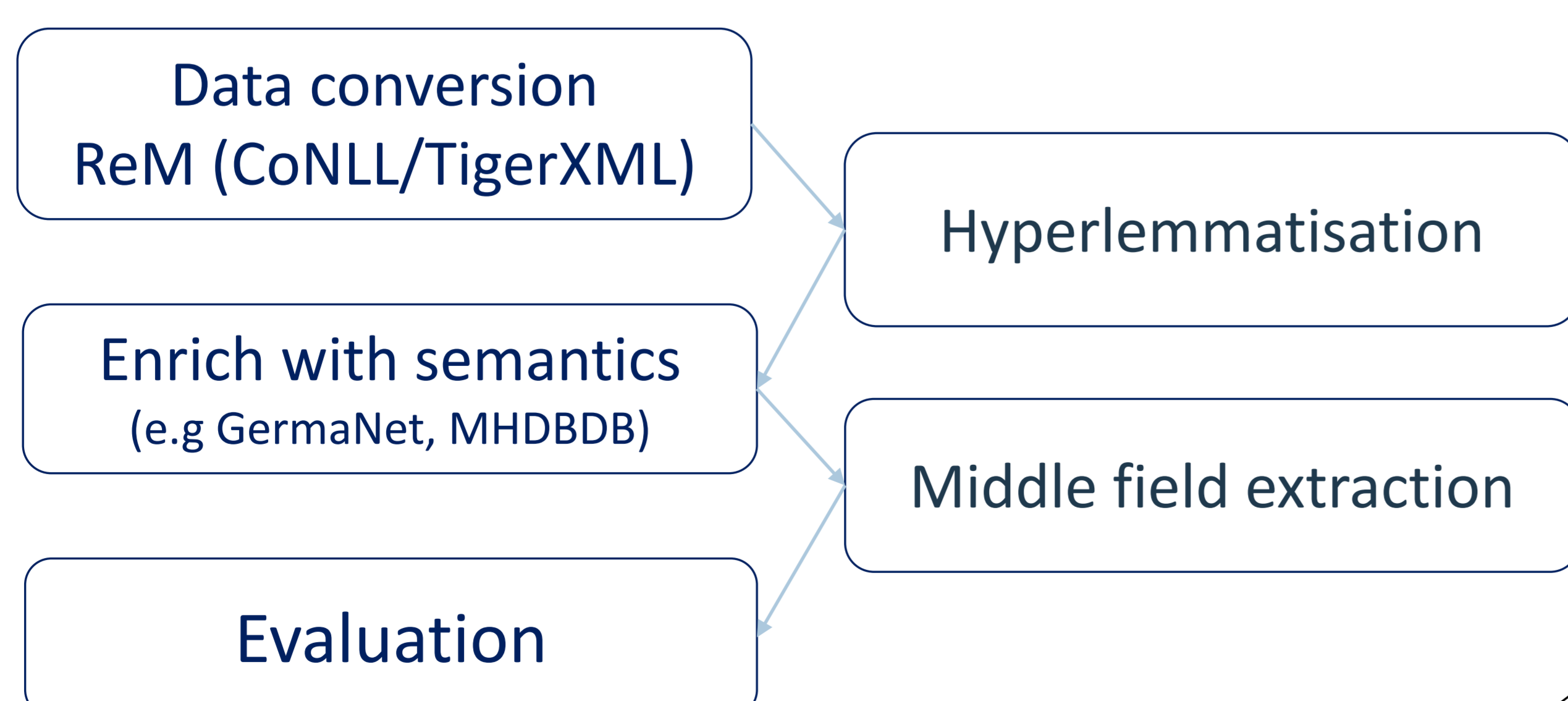
Ptolomeus schreib die tat dem kunig
Polomeus write.PST the.F.Acc deed.F.Acc the.M.Dat king.M.Dat

(Ptolomeus wrote the deed to the king.)

si zeigt dem kunig den mandel und ir gewant
She show.PST the.M.Dat king.M.Dat the.M.Acc coat.M.Acc and her.Acc garment.N.Acc
(She showed her coat and garment to the king)

Methodology

1. Convert Reference Corpus Middle High German (ReM) in TigerXML and CoNLL formats
2. Dictionary-based linking of MHG lemmata to German lemmata (hyperlemmatisation).
3. Link semantic resources (GermaNet, MHDBDB)
4. Extract middle field constituents
5. Evaluate results and effect of different factors:
 - dialectal factors (region)
 - stylistic factors (genre)
 - diachronic development (time)
 - discourse factors (word importance, ...)
 - semantic factors (animacy, ...)



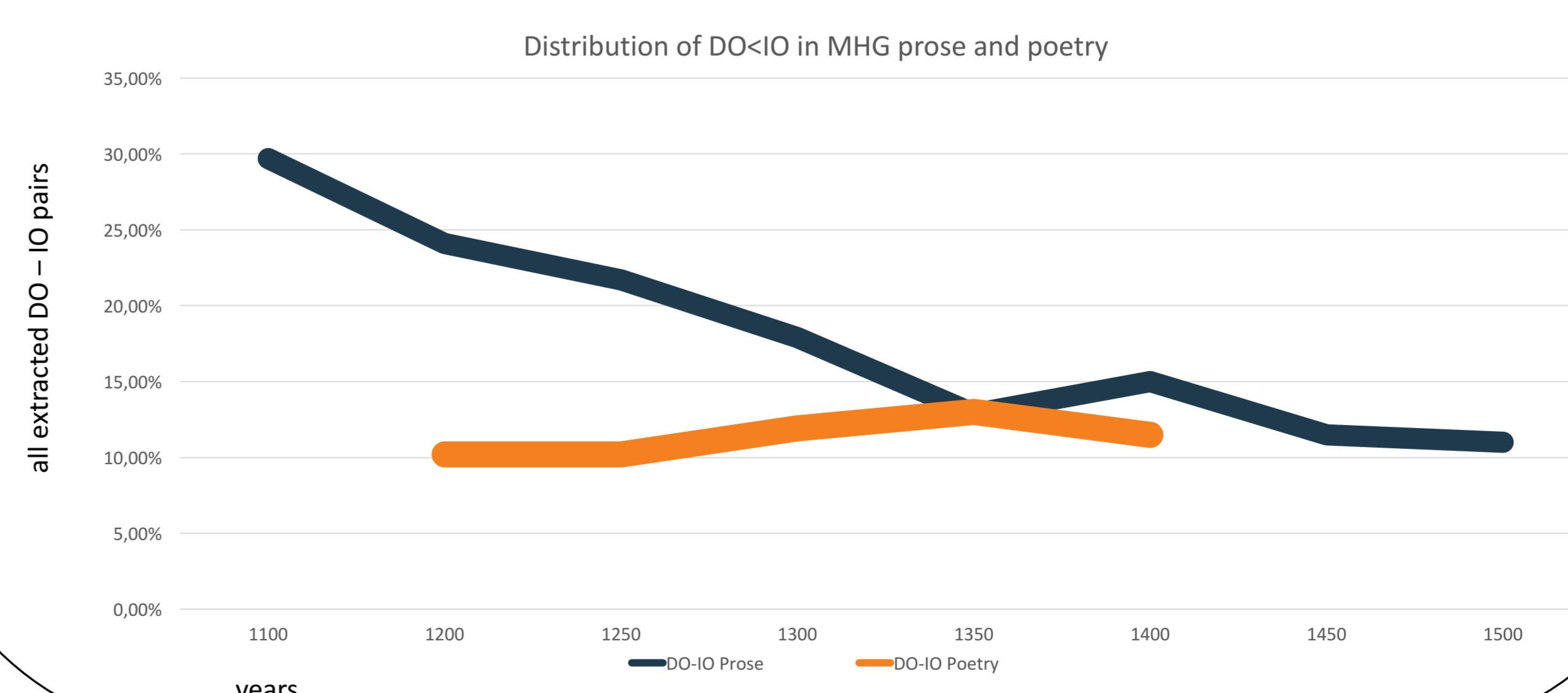
Pilot Study

Qualitative hypothesis

Word order flexibility in the middle field has been relatively stable in older German, it increased only since the 16th century. (cf. Speyer, 2011)

Preliminary quantitative results

1. Word-order flexibility in prose *drops* from the 12th c.
2. It slightly increases in the 14th c.
3. It continues to drop in the 15th c.
4. The difference in flexibility is not statistically significant between the 15th and 16th centuries.
5. Ask us for preliminary results on (Early) Modern German



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