

# Structural Integration of Norse-derived verbs in the *Ormulum*

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# Outline



## Loan word accommodation

Lexical copying

Loan verb accommodation

Accommodation biases



## Case study

The Ormulum

Norse-derived verbs in the Ormulum

RQ & hypothesis

Data & Method

Results

Discussion



## Ideas & challenges

## ‘Loans’ as outcomes of copying

English language shows many **loans** from Old Norse (cf. Durkin 2014; Grant 2009)

- Including basic vocabulary e.g., *to take, to give, to hit*

(1) *Marie Magdeleyne **tooke** [ON: taka] an alabaustre box of precious oynement*  
‘Mary Magdalene took an alabaster box of precious ointment’  
(*Aelred of Rievaulx's De Institutione Inclusarum*)

# A loan is a loan is a loan?

Contact between closely related languages like OE and ON is characterized by

- Typological closeness
- sufficient phonological, morphological and structural overlap
- High number of cognates

To investigate the outcomes of copying in **language contact situations between closely related languages** we need to differentiate between

- **Non-cognate copies (*casten* < ON *kasta*)** = gersum A & B1
- **Copies with a surviving/contrasting OE/WG cognate (*reisen* < ON *reisa*)** = gersum A\* (& B2)
- **Cognates in contact (*missen* < OE *missan* & ON *missa*)** = gersum C

# Integrational outcome of copying

factors affecting number and nature of copies

- e.g. **intensity** of contact (Campbell 1998; Thomason & Kaufman 1988)
- e.g. **morphological complexity** of borrowable categories (Matras 2009: 175f.)
- ...

⇒ linguistic closeness facilitates copying, esp. of complexer categories  
(Winford 2003: 51ff.; cf. Johanson 2002)

# loan word accommodation

## loan word accommodation

- grammatical **integration** into recipient-language system (Muysken 2000; Poplack, Sankoff & Miller 1988)

## loan **verb** accommodation

- still understudied
- often operationalised as a constraint on lexical copying (cf. Winford 2003)
- seminal work by Wohlgemuth (2009) on morphosyntactic accommodation strategies

## loan verb accommodation

loan verb accommodation **strategies** (Wichmann & Wohlgemuth 2008;  
Wohlgemuth 2009)



<b>Direct insertion</b>	Recipient-language inflections are added directly onto word stems of copies
<b>Indirect insertion</b>	An additional affix is added to the word stem of the copy before it can be inflected
<b>Light verb strategy</b>	A copied verb is nominalised and inflections are carried by a dedicated light verb
<b>Paradigm insertion</b>	A copied verb continues to carry its source language inflections in the recipient language



## loan verb accommodation

**loan verbs** can often be inflected like **native verbs** (cf. Wohlgemuth 2009, Poplack et al. 2020)

- Norse-derived verbs are treated like native verbs under direct insertion (cf. Wohlgemuth 2009, appendix)

### ME:

- |   |              |                      |
|---|--------------|----------------------|
| • <i>finden</i> ‘to find’                 | <i>find</i>  | <i>-en</i>           |
|   | English stem | ME infinitive marker |
| • <i>reisen</i> ‘to raise’ (Norse origin) | <i>reis</i>  | <i>-en</i>           |
|   | Norse stem   | ME infinitive marker |



## constraints on loan verb accommodation

**loan verbs** can often be inflected like **native verbs**  
(Wohlgemuth 2009; Poplack et al. 2020)



loan verbs are **disproportionately** more **frequent**  
in **specific** grammatical **structures**  
(De Smet 2014, Shaw & De Smet 2022, Elter & Shaw (in prep))

## loan word accommodation biases

(1, rep.) *Marie Magdeleyne **tooke** [ON: taka] an alabaustre box of precious oynement*  
'Mary Magdalene took an alabaster box of precious ointment'



*(Aelred of Rievaulx's De Institutione Inclusarum)*

(2) *and þou shalt **cast** [ON: kasta] hem in-to dampnacioun*  
'And you shall cast them into damnation.'

*(The Earliest Complete English Prose Psalter)*

(3) *To **kinndlenn** hemm soþ lufess fir; Inn hannd. & ec inn herrte.*  
'To kindle (in) them true loves fire; in hand and also in heart'

*(Ormulum 13442-13443)*

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# The Ormulum – text and relevance (Cooper, 2022)

- An invaluable and essential source of key changes in the English language in the 12th century
- The only text in its dialect for this time = East Midlands,  
transitional OE > ME
- Due to the location & dialect of composition an invaluable testimony to the Norse element in East Midland English at the end of the OE period

# Norse-derived verbs in the Ormulum

- Ormulum (Johannesson & Cooper 2023) complete glossary with etymologies, variant spellings and all attested inflectional forms
- New work by Pons-Sanz: Re-assessment of Norse-derived lexis in Ormulum following *GERSUM* typology
  - 30 additional verbal lexemes classified
- **82 verbs** with some degree of evidence for Norse-derivation are attested in the full Ormulum
- **only 25** of those also occur in the PPCME2 sample from the text as lemmatized in *BASICS* project (cf. Trips & Percillier 2020)

# Norse-derived verbs in the Ormulum— the role of cognates

82 lexical verbs showing (some) evidence for Norse derivation

- **Non-cognate copies** (*casten* < ON *kasta*) = A & B1 = 8 lemmas
- **Copies with a surviving contrasting OE/WG cognate** (*reisen* < ON *reisa*)  
= A\* ( & B2) = 16 lemmas
- **Cognates in contact** (*missen* < OE *missan* & ON *missa*)  
= C = 40 lemmas
- **Lemmas with uncertain source forms, minor or contested evidence of Norse derivation**  
= D = 17 lemmas
- **Other e.g., *primmsezznenn* classified as CCC4 with Latinate model** = 1 lemma

# The idea

High number of Norse-derived verbs in *Orrms* language is a valuable basis for

- Investigation of **accommodation biases** of cognate and non-cognate verbs in comparison to non-cognate English verbs



# Research question

**Do accommodation biases shown by Norse-derived verb copies in the Ormulum differ in strength depending on the existence and closeness of a native cognate in English?**

## **Hypothesis:**

Accommodation biases are stronger for copies of non-cognate verbs than for copies of non-contrasting cognate verbs copied into Middle English from Old Norse

- due to their closer etymological relation and resulting identifiability and higher formal and structural compatibility with the basic code

# Methodology for Johannesson & Cooper (2023) edition

- Making Johannesson & Cooper (2023) edition preprint searchable using RegEx in AntConc (Anthony, 2023, version 4.2.0)
- Set of Norse-derived verbs
  - Previous work using dictionaries & GERSUM database = list used for PPCME2 prestudy
  - New work by Pons-Sanz on Norse lexis in Ormulum
  - Ormulum glossary
- Creating queries for verb lemmas in AntConc:
  - Formulating RegEx using the Ormulum glossary
  - Making note of homograph forms for data cleaning protocol
- Querying all Norse-derived lemmas using RegEx and extracting all hits per lemma into a dataframe

# Methodology for Johannesson & Cooper (2023) edition

- Data cleaning
  - Identification and exclusion of homographs across lexemes (conversions & accidental) using the Ormulum glossary
  - Manual disambiguation and exclusion of homograph nouns, adjectives, etc.
- Manual annotation of all instances for category of verb (finiteness)
  - finite (present, past, imperative)
  - non-finite (infinitive, present participle, perfect participle, passive participle)

# Methodology for Johannesson & Cooper (2023) edition

- Calculating the proportion of non-finite uses for all three subgroups
  - Non-cognate copies
    - n (lemmas) = 8; 5 are first attested in Ormulum
    - High frequency lemma *takenn* is attested earliest (OE) according to OED
  - Contrasting cognate copies
    - n (lemmas) = 16
    - High frequency lemma: *gifenn*
  - Cognates in contact (i.e., Non-contrasting cognate copies)
    - n (lemmas) = 40; hits = 609
    - partially disambiguated for usage of Norse-derived senses and forms (C2 and C3 categories only)
    - High(er) frequency lemmas (26 hits < *fasstenn*, *frazznenn*, *mæleenn*, *þennkenn*, *arrn*, *þinnkenn*, *sekenn* > 69 hits)

# Methodology for Johannesson & Cooper (2023) edition

- Evaluating difference in proportion of non-finite usages as the measure for accommodation bias
  - Between Norse-derived verb sets and the baseline for native English verbs
    - **Baseline: English origin verbs in the PPCME2 Ormulum sample**, excluding OE-ON cognates, (cf. BASICS etymologies and lemmatization (Trips & Percillier 2020) Dance, Pons-Sanz & Schorn 2019; OED; MED)
- Comparison of accommodation biases between subgroups of Norse-derived copies
  - Evaluating difference in proportion of non-finite usages as the measure for accommodation bias using **Fisher's exact probability test**

# Results – finiteness proportions

etymological verb set	non-finite	finite	NF/F	total
<b>Cognates in contact</b>	<b>44.83%</b>	55.17%	273/336	609
<b>Copy with contrasting OE cognate</b>	<b>63.87%</b>	36.13%	76/43	119
Non-cognate (including <i>taken</i> )	21.53%	78.47%	79/288	367
<b>Non-cognate (excluding <i>taken</i>)</b>	<b>60.00%</b>	40.00%	12/8	20
Norse_all	39.09%	60.91%	428/667	1095
<b>English baseline (PPCME2 Orm sample )</b>	<b>54.66%</b>	45.34%	2715/2252	4967
All cognates (contrasting & non-contrasting)	54.53%	45.47%	349/379	728

- **non-cognate copies show non-finiteness bias** i.e., higher non-finite usage proportions than baseline of English verbs
- Effect of highly frequent lemma *takenn* (347/367) instances in non-cognate set

# Results

Hypothesised:

Non-cognate copies show higher non-finite usage proportions than native English verbs

- There is a **non-significant difference** in finiteness proportions between native English verbs and Norse-derived non-cognate copies in the Ormulum
  - Fisher exact test statistic value is  $p = 0.661$  (not significant)
  - Likely due to (very) small data set in relation to English baseline
- **No significant accommodation bias for Norse-derived non-cognate copies**



# Results

Comparison of accommodation biases between subgroups of Norse-derived copies

- **Non-cognate** copies show **non-significant** accommodation bias
- **Contrasting cognate** copies have the highest proportion of non-finite usage across subgroups & in comparison to native verbs (**not significant**)
- Non-finite proportions are **lower** than for native English verbs for **cognates in contact**

contrasting cognate copies > **non-cognate copies** > **English** > cognates in contact



## Results

When controlling for half verse and verse final position and only comparing accommodation biases for non-final instances

- **Non-cognate copies** have the highest proportion of non-finite usage across subgroups & in comparison to native verbs
- **significant** accommodation bias for non-finiteness ( $p < .01$ )

**non-cognate copies > contrasting cognate copies > English > cognates in contact**

For instances of Norse-derived verbs in final position

- both sets of cognate copies show higher non-finite usage proportions than English verbs (non-significant,  $p = 0.0773$ )
- non-cognate copies predominantly occur in finite forms (60%).

**contrasting cognate copies > cognates in contact > English > non-cognate copies**

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## Ideas & challenges

# Ideas & challenges

- Improving on the operationalisation of metre influencing inflection/finiteness
- Investigation of **variation**/ idiosyncrasies of *Orrms* use of non-cognate Norse-derived verbs concerning **argument structure patterns** in comparison to non-cognate English verbs
- Lemma specific constructions & formations
  - Collocations of OE & Norse-derived copied near synonyms e.g., *flittenn* & *farenn*
  - ?
- Frequency effects for high & low frequency lemmas (Shaw 2022, Elter & Shaw, in prep.)
  - High frequency: *takenn*, *gifenn*, *fasstnenn*, *sekenn*, ...
  - Low frequency: any lemma occurring  $\leq 2$  ?

# Thank you!





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