

The Loss of Plural Concord in Quantifiers and Adjectives in Middle English

ICHL 25, Oxford

Raquel Montero Estebaranz

4th August, 2022



➤ The Middle English period was characterised by a general loss of inflectional morphology, and strong adjectives and quantifiers were no exception.

➤ The Middle English period was characterised by a general loss of inflectional morphology, and strong adjectives and quantifiers were no exception.

Old English

		${f M}$	N	\mathbf{F}
	N	-Ø	-Ø	-u
C.m	A	-ne	-Ø	-e
Sg	G	-es	-es	-re
	D	-um	-um	-re
	N	-е	-u	-a
Pl	A	-е	-u	-a
	G	-ra	-ra	-ra
	D	-um	-um	-um

➤ The Middle English period was characterised by a general loss of inflectional morphology, and strong adjectives and quantifiers were no exception.

Old English

		${f M}$	N	\mathbf{F}
	N	-Ø	-Ø	-u
Sa	A	-ne	-Ø	-e
Sg	G	-es	-es	-re
	D	-um	-um	-re
	N	-е	-u	-a
Pl	A	- е	-u	-a
11	G	-ra	-ra	-ra
	D	-um	-um	-um

Early Middle English

	v		0	
		\mathbf{M}	N	\mathbf{F}
	N	-Ø	-Ø	-Ø
C.m	A	-е	-Ø	-е
Sg	G	-es	-es	-re
	D	-e(n)	-e(n)	-er
	N		-е	
Pl	A		-е	
	G		-er	
	D		-e(n)	

> The Middle English period was characterised by a general loss of inflectional morphology, and strong adjectives and quantifiers were no exception.

	C	ld En	$_{ m glish}$		Early Middle English			Late Mid				
		${f M}$	N	\mathbf{F}				\mathbf{M}	\mathbf{N}	\mathbf{F}		
	N	-Ø	-Ø	-u			N	-Ø	-Ø	-Ø		N
C.m	A	-ne	-Ø	- е		C.m	A	-е	-Ø	-e	C.m	A
Sg	G	-es	-es	-re		Sg	G	-es	-es	-re	Sg	G
	D	-um	-um	-re			D	-e(n)	-e(n)	-er		D
	N	-е	-u	-a			N		-е			N
Pl	A	-е	-u	-a		Pl	A		-е		Pl	A
PI	G	-ra	-ra	-ra		PI	G		-er		PI	G
	D	-um	-um	-um			D		-e(n)			D

Late Middle English

		\mathbf{M}	\mathbf{N}	\mathbf{F}
	Ν			
Class	A	~		
Sg	G		-Ø	
	D			
	N			
Pl	A			
	G	-e		
	D			

(OE inflections table from Hogg and Fulk (1992), ME inflection table from Pyles & Algeo (1993))

GENERALISATIONS IN THE LITERATURE

- ➤ This loss was the result of phonological erosion and analogy (Pyles and Algeo, 1993).
- ➤ It was possibly accelerated due to the contact with Scandinavian speakers (Allen, 1996).

GENERALISATIONS IN THE LITERATURE

- ➤ This loss was the result of phonological erosion and analogy (Pyles and Algeo, 1993).
- ➤ It was possibly accelerated due to the contact with Scandinavian speakers (Allen, 1996).

Goals of this study

- 1. Study whether syntactic category (adjective vs quantifier) had any effect on the loss of number marking.
- 2. Test empirically the effect of Scandinavia contact on the loss of plural concord, and provide a more fine grained description of the effect of language contact.

Scandinavian Contact and Data Available

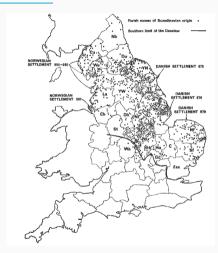


Image from Smith (1956).

Phases of English and Norse Contact (Pons-Sanz 2013; Walkden, in prep):

• 'Hit-and-run' phase: 8th c. -10th c.

• 'Settlement' phase: mid 10th c. - 1000

• 'Conquest' phase: 1016-1042

• 'Shift' phase: 1042-1100

Last phase was characterised by large numbers of L2 \longrightarrow relevant for Trudgill's (2011) Sociolinguistic typology.

Data from that period and area scarce, instead:

• After 1100: prose texts from PPCEME2

• Before 1042: annotation phase (with Sarah Einhaus)

Scandinavian Contact and Data Available

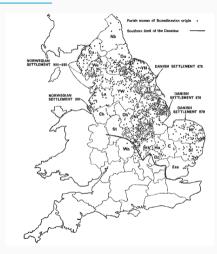


Image from Smith (1956).

Phases of English and Norse Contact (Pons-Sanz 2013; Walkden, in prep):

• 'Hit-and-run' phase: 8th c. -10th c.

• 'Settlement' phase: mid 10th c. - 1000

• 'Conquest' phase: 1016-1042

• 'Shift' phase: 1042-1100

Last phase was characterised by large numbers of L2 \longrightarrow relevant for Trudgill's (2011) Sociolinguistic typology.

Data from that period and area scarce, instead:

• After 1100: prose texts from PPCEME2

• Before 1042: annotation phase (with Sarah Einhaus)

Scandinavian Contact and Data Available

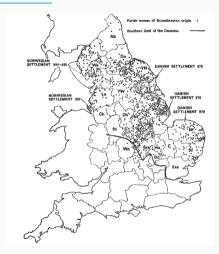


Image from Smith (1956).

Phases of English and Norse Contact (Pons-Sanz 2013; Walkden, in prep):

• 'Hit-and-run' phase: 8th c. -10th c.

- 'Settlement' phase: mid 10th c. - 1000

• 'Conquest' phase: 1016-1042

• 'Shift' phase: 1042-1100

Last phase was characterised by large numbers of L2 \longrightarrow relevant for Trudgill's (2011) Sociolinguistic typology.

Data from that period and area scarce, instead:

• After 1100: prose texts from PPCEME2

• Before 1042: annotation phase (with Sarah Einhaus)

Some Preliminaries: Nominal Structure

- ➤ In morphological terms adjectives and quantifiers are very similar. However, they differ in distributional terms, and thus belong to different syntactic categories (Fischer and van der Leek 1981).
 - (1) Floating Quantifiers in OE:

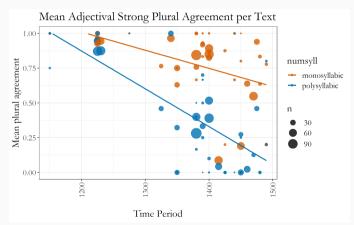
 Pa common **ba sacerdas** to bam cynincge **ealle**then came the priests to the king all

 'Then all the priests came to the king.' (coaelive ÆLS:374.3935, in Siyan (2020))
- > Nominal Structure:

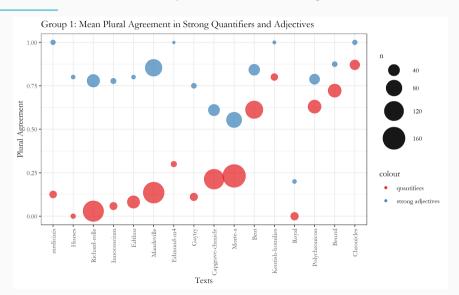


Some Preliminaries: Number of Syllables

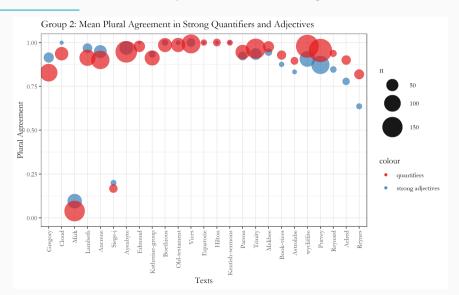
Number of syllables: by 1250, the plural -e ending was present only in strong adjectives and quantifiers which were monosyllabic and ended in a consonant in OE, polysyllabic ones were uninflected (Baugh and Cable, 2002: 146) → We only compared monosyllabic Adj and Q.



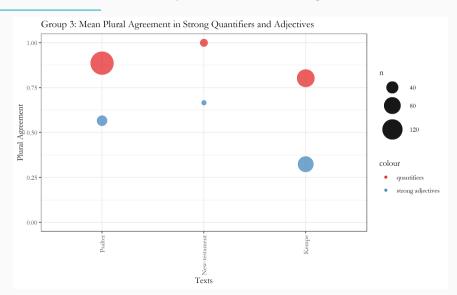
Results: Difference between Quantifiers and Adjectives



Results: Difference between Quantifiers and Adjectives



Results: Difference between Quantifiers and Adjectives

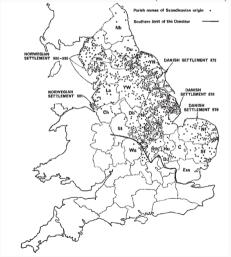


Examining the Difference between Q and Adj

- ➤ What are the factors influencing whether adjectives and quantifiers behave differently?
- ➤ Where and when did this split into groups emerge?

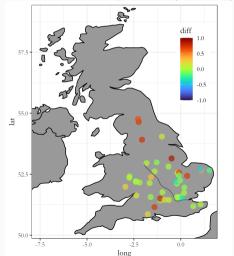
Results: Effect of Language Contact

Scandivanian Settlements (Smith 1956)

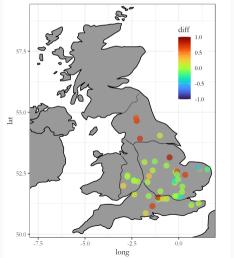


(Geographical Information taken from eLALME and LAEME)

Difference Plural Agreement (Q vs Adj)

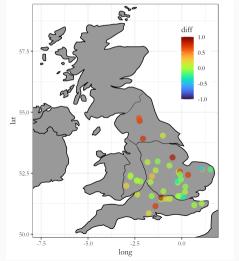


Difference Plural Agreement (Q vs Adj)

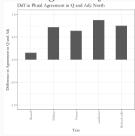


North significantly different, W = 17, p-value $<0.05\,$

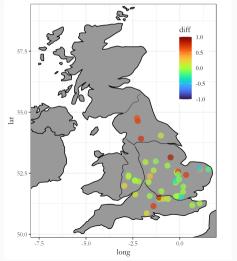
Difference Plural Agreement (Q vs Adj)



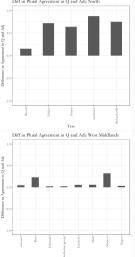
North significantly different, W = 17, p-value < 0.05



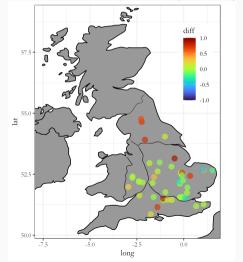
Difference Plural Agreement (Q vs Adj)



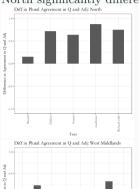
North significantly different, W=17, p-value <0.05

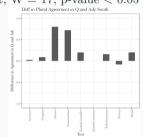


Difference Plural Agreement (Q vs Adj)

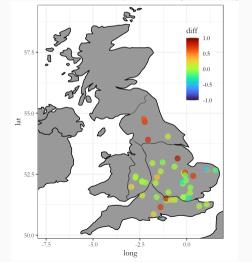


North significantly different, W = 17, p-value < 0.05

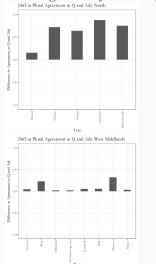


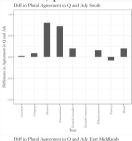


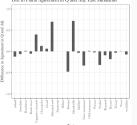




North significantly different, W = 17, p-value < 0.05

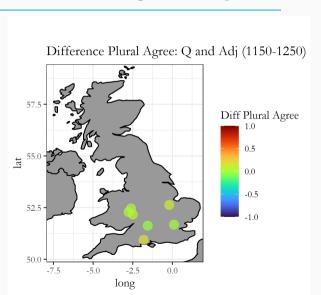


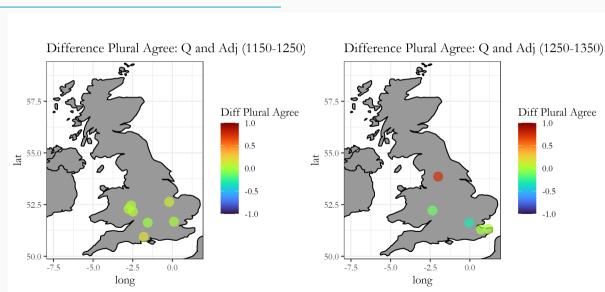


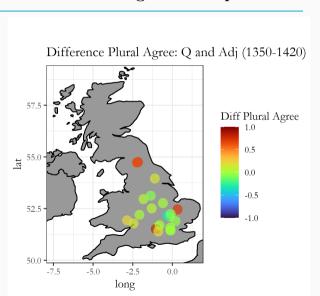


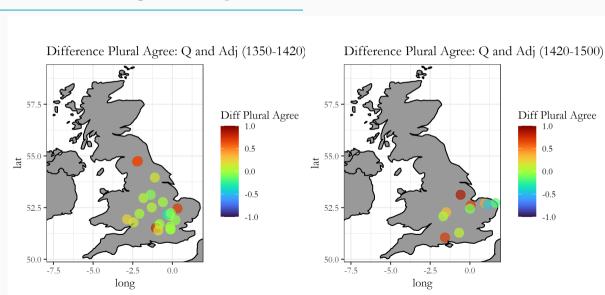
Examining the Difference between Q and Adj

- What are the factors influencing whether adjectives and quantifiers behave differently?
 - Dialect is a main factor, with Northern texts showing a higher difference between categories.
 - 'Northern Middle English (NME) is quite clearly the most Norse-influenced of the ME dialects.'
 (Thomason and Kaufman, 1992: 282)
 - Contact is a possible trigger.
- ➤ Where and when did this split into groups emerge?









Examining the Difference between Q and Adj

- > What are the factors influencing whether adjectives and quantifiers behave differently?
 - Dialect is a main factor, with Northern texts showing a higher difference between categories.
 - 'Northern Middle English (NME) is quite clearly the most Norse-influenced of the ME dialects.'
 (Thomason and Kaufman, 1992: 282)
 - Contact is a possible trigger.
- ➤ Where and when did this split into groups emerge?
 - The first text in which Q show less agreement than adjectives is a Northern text from the M2 period.
 - The first text in which adjective show less agreement than quantifiers, is a south EM text.
 - Before these, agreement was equal for both categories in all dialects for which we have evidence.

Explaining the Pattern

- > Why did the Northern dialects behave differently?
 - 1. Exogenous explanations:
 - Transfer from Old Norse
 - L2 Difficulty
 - 2. Endogenous explanations:
 - The dialectal difference was present already in Old English

Discussion: Transfer

➤ Transfer: In Old Norse Qs, Adjs and Ds followed a similar inflectional pattern (Faarlund 2014)

Strong Adjectives(Faarlund 2014: 37)

		\mathbf{M}	\mathbf{F}	N
	N	-r	Ø	-t
Sg	A	-an	-a	$-t/\varnothing$
bg	D	um	-ri	-u
	G	-S	-rar	-s
	N	-ir	-ar	Ø
Pl	A	-a	-ar	Ø
	D	-um	-um	-um
	G	-ra	-ra	-ra

- ➤ In ME, determiners followed a different paradigm and loss inflection earlier than Q and Adjs.
- ➤ If transfer, we would have predicted an homogenization (either all three categories show agreement or they don't).

Discussion: L2 Difficulty

- ➤ Interpretability Hypothesis (Tsimpli & Dimitrakopoulou 2007): uninterpretble features are hard to acquire by L2 learners.
- > Agreement and uninterpretable features:
 - Chomsky (2001): Agree is one of the core syntactic operations and it is triggered by the need of uninterpretable features to get deleted before LF.
 - Bobaljik (2008): agreement is a postsyntactic operation.
 - Is plural concord postsyntactic or syntactic?
- > Proposal: Difference between Qs and Adjs in terms of agreement.
 - Qs are heads \longrightarrow syntactic agreement.
 - Adjs are adjuncts (which are introduced late in the derivation/merge countercyclically (Lebeaux 1991) \longrightarrow postsynatic agreement.

Discussion: L2 Difficulty

- ➤ Adjunction and intervention: (Ochi 1999)
- (2) Ana does not leave \longrightarrow negation as a head intervenes
- (3) Ana always leaves \longrightarrow adjuncts do not intervene
- > Analysis:
 - (4) Ana Infl [VP] Ana leave \longrightarrow Spell-Out and PF merger of Infl and leave
 - (5) Ana always leaves \longrightarrow late merge and Spell-Out
- ➤ If the adjunct is inserted later in the derivation, after (4) has been sent to the interfaces, how can Agreement in adjuncts (if syntactic) happen?
- > Agreement in adjuncts in postsyntactic
- ➤ Is there evidence from the L2 acquisition corroborating this claim?

Discussion: dialectal differences present in Old English

- ➤ RESULTS: the Northern texts which were written after the shift phase (1041-1100), show differences between Q and Adj.
- ➤ QUESTION: How did quantifiers behave before the shift phase? If they followed the same distributional and agreement patterns, then a contact explanation can be ruled out.
- ➤ FUTURE WORK: Look at the behaviour (distributional and morphological) of quantifiers in earlier texts from different dialectal regions Lindisfarne Gospels annotation with Sarah Einhaus.

Conclusion

- 1. Study whether syntactic category (adjective vs quantifier) had any effect on the loss of number marking.
 - There is a diff between Q and adjectives in some texts.
 - This difference is not determined by period, but there is an effect of dialect (Northern texts show a higher tendency to show a difference).
- 2. Test empirically the effect of Scandinavian contact on the loss of plural concord, and provide a more fine grained description of the effect of language contact.
 - We explored three explanations to account for the pattern (2 exogenous and 1 endogenous):
 - i. Transfer $\longrightarrow X$
 - ii. L2 difficulty \longrightarrow ?
 - iii. Dialectal difference present before contact \longrightarrow ?

Further research is needed to tease these last two apart.

Acknowledgements









ERC-funded project, (2020-2025)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 851423

STARFISH Members:

George Walkden, Henri Kauhanen, Gemma McCarley, Molly Rolf and Sarah Einhaus

I would like to also thank Gema Chocano for discussions about this work.

University of Konstanz

Thank you!

References

Allen, Cynthia. 'Middle English case loss and the 'creolization' hypothesis1.' English Language & Linguistics 1.1 (1997): 63-89.

Baugh, Albert, and Thomas Cable. A history of the English language. Routledge, 2002.

Benskin, M. (Author), Laing, M. (Author), Karaiskos, V. (Developer), & Williamson, K. (Developer). (2013). A

Linguistic Atlas of Late Mediaeval English: e-LALME. Web publication/site, University of Edinburgh.

http://www.lel.ed.ac.uk/ihd/elalme/elalme.html

Bobaljik, Jonathan David. 'Where's phi? Agreement as a post-syntactic operation.' *Phi-Theory: Phi features across interfaces and modules 4410* (2008): 295-328.

Chomsky, Noam. "Derivation by phase. Ken Hale: A life in language, ed. by Michael Kenstowicz, 1-52." (2001). Faarlund, Jan Terje. The syntax of Old Norse: With a survey of the inflectional morphology and a complete

bibliography. Oxford University Press on Demand, 2004.

Fischer, Olga, and Frederike van der Leek. 'Optional vs radical re-analysis: mechanisms of syntactic change.' Lingua 55.4 (1981): 301-350.

Hogg, Richard M., and Robert Dennis Fulk. A grammar of old English, volume 2: Morphology. John Wiley & Sons, 2011.

Kroch, Anthony, Ann Taylor, and Beatrice Santorini. 2000-. The Penn-Helsinki Parsed Corpus of Middle English (PPCME2). Department of Linguistics, University of Pennsylvania. CD-ROM, second edition, release 4 (http://www.ling.upenn.edu/ppche/ppche-release-2016/PPCME2-RELEASE-4).

References

Laing, Margaret. (2013). A Linguistic Atlas of Early Middle English 1150–1325 (LAEME, Version 3.2).

Lebeaux, David. 'Relative clauses, licensing, and the nature of the derivation.' Perspectives on phrase structure: Heads and licensing. Brill. 1991. 209-239.

Ochi, Masao. 'Multiple spell-out and PF adjacency.' North East Linguistics Society. Vol. 29. No. 1. 1999.

Pons-Sanz, Sara M. The lexical effects of Anglo-Scandinavian linguistic contact on Old English. Brepols, 2013.

Pyles, Thomas and John Algeo. The Origins and the Development of the English Language. Fort Worth:

Harcourt Brace Jovanivich. 1993

Smith, A. H. 'English Place-Name Elements Parts 1 and 2, with addenda and corrigenda.' (1956).

Thomason, Sarah Grey, and Terrence Kaufman. Language contact, creolization, and genetic linguistics. Univ of California Press, 1992.

Tsimpli, Ianthi Maria, and Maria Dimitrakopoulou. 'The interpretability hypothesis: Evidence from wh-interrogatives in second language acquisition.' Second Language Research 23.2 (2007): 215-242.

Trudgill, Peter. Sociolinguistic typology: Social determinants of linguistic complexity. Oxford University Press, 2011.

Walkden, George. 'Scandinavians and verb-second in Northumbrian Old English.' Manuscript in Preparation. Draft online publication: http://46.32.240.35/walkden.space/Walkden_2020_Northumbrian.pdf 夏思洋. "The Development of Floating Quantifiers in the History of English." 愛知淑臣大学論集. 文学部·文学研究科篇 = Bulletin of Aichi Shukutoku University. 愛知淑臣大学論集編集委員会編 45 (2020): 23-38.

Appendix: Annotation

- Strong Adjective + Plural Noun
- Quantifier + Plural Noun

EXCLUDED FROM THE ANALYSIS:

- Nouns beginning with a vowel.
- Adjectives that were inflected with the French plural -s morphology.
- Adjectives whose stem ends in an -e. For example *treowe* is inflected *treowe* for both nominative singular and plural.

Appendix: Manuscripts Information

- > Annotation
 - 1. Dialectal Region
 - The LAEME and eLALME provide the specific locations of the manuscripts

```
Oxford, Bodleian Library, Rawlinson B 171. ca. 1400. Ed. F.W.D. Brie, The Brut i, EETS os 131 (1906, repr. 1981), p. 14 seq.; whence analysed. LP 7370. Grid 336 236. Herefordshire. LP number: 7370

Manuscript: Oxford, Bodleian Library, Rawlinson B 171.

Date: ca. 1400.
```

Area: England

County: HRF (Herefordshire)

Grid reference: 336 236

Bibliographic information: Ed. F.W.D. Brie, *The Brut* i, EETS os 131 (1906, repr. 1981), p. 14 seq.; whence analysed.

- 2. Year of composition: the PPCME2 gives information about the period of the texts.
 - M1: 1150-1250
 - M2: 1250-1350
 - M3: 1350-1420
 - M4: 1420-1500

Appendix: manuscripts information

➤ There were some few texts with no grid reference in eLALME and LAEME —> Used a central point in the dialectal area.



➤ There was one text in the PPCME2 which do not specify the manuscript used, and there are several in manuscripts in the LAEME → calculated the midpoint.

