# The evolution of word order frequencies in medieval English and French 

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## Sources

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$\approx 1$ million words
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$\approx 150,000$ words


## The loss of verb-second word order and the decline of topicalization

## Topicalized object sentences with V2 word order in English and French

(I) These thinges shuld a mayde bisely kepe with gret drede....
(CMAELR4-M4, I0.259)
(2) Alle sal man comunlike recaiue
(CMBENRUL-M3,35.II3I)
(3) messe e matines ad li reis escultet mass and matins has the king heard
(Roland II.I39)
(4) I'estreu li tint sun uncle Guinemer the stirrup him held his uncle Guinemer
(Roland 27.329)

## Topicalized object sentences with V3 word order in English and French

(I) Thes same wordys God schall say to you at +te day of dome (CMMIRK-M34,7I.I908)
(2) pat Octa scal ifinden
(LAYAMON-MI, 508.466)
(3) ceste franchise il tient de Deiu this privilege he has from God
(Somme, 80.268)
(4) aultre remyde je n'y voy other remedy I not there see
(XV Joies, I I Iv.I209)

## Adverb initial sentences with V2 word order in English and French

(I) and panne schulde by talkyngge be sauery and swete (CMAELR3-M23, 49.734)
(2) and elles mi3t neuer man in pis liff abide it ne bere it.
(CMCLOUD-M3, 84.453)
(3) or est ele bien venue now is she welcome
(Yvain 43.1440)
(4) ben l'entendit il arcevesques Turpin
well it understands the archebishop Turpin
(Roland 96.I237)

## Adverb initial sentences with V3 word order in English and French

(I) eftir pe dede sal pe not mis-like
(CMBENRUL-M3, 8.238))
(2) And pan pe swan shal bene slayne wip sorwe
(CMBRUT3-M3, 74.2230)
(3) unkes nuls hom ne vit tel ajustee. never no man not saw such joust
(Roland 238.3299)
(4) premierement il devient taverniers first he becomes innkeeper

English

## Decline of direct object topicalization in English




## Frequency of direct object topicalization in modern spoken Dutch (Bouma 2008)

Table 4.2: Summary of Vorfeld occupation of arguments.

|  | Vorfeld |  |  |
| :--- | ---: | ---: | :---: |
| Argument | yes | no |  |
| subject | 43523 | 18597 |  |
| direct object | 3418 | 20432 | $\mathbf{7 0 . 1}$ |
| indirect object | 38 | 815 | $\mathbf{1 4 . 3}$ |

## Evolution of PP preposing in English

50



## Evolution of adverb fronting in English



## The history of topicalization in English (Speyer 2008)

- Why does topicalization decline in Middle English but not disappear? If the change is parametric, it should go to completion. Otherwise, topicalization, a clear case of stylistic variation, might be expected to be stable in frequency over time.
- This question finds an answer in the specific interaction between parametric settings and stylistic variation in the history of English.


# An illustrative case in the New Testament Matthew 13.28 

(I) Pā cwæp hē, Pæt dyde unhold mann.

West Saxon Gospels ca. 1000
(2) And he seide to hem, An enemy hath do this thing. Wycliffe Bible ca. 1380

## Decline of direct object topicalization in English




Correlation between frequencies of object topicalization and of V2 in Middle English texts (Wallenberg 2007)


## Distribution of subject types in a corpus of topicalized and non-topicalized sentences in natural speech

| personal pronoun | demonstrative pronoun | full noun phrase |
| :--- | :--- | :--- |
| 140 | 20 | 142 |
| $\mathbf{4 6 . 4}$ | $\mathbf{6 . 6}$ | $\mathbf{4 7 . 0}$ |

Subject type in sentences with in situ objects

| personal pronoun | demonstrative pronoun | full noun phrase |
| :--- | :--- | :--- |
| 181 | 2 | 17 |
| $\mathbf{9 0 . 5 \%}$ | $\mathbf{1 \%}$ | $\mathbf{8 . 5} \%$ |

Subject type in sentences with topicalized objects

## Clash avoidance

- The type of topicalization that declines:
(1) The nèwspaper Jóhn read; the nòvel Máry did. (Compare:The nèwspaper read Jóhn.)
- The type of topicalization that doesn't:
(2) The nèwspaper I réad; the nòvel I dídn’t.


## Translating German topicalized arguments into

 English in three modern German novels
## (Speyer 2008)

Topicalized to topicalized:
G: Mahlkes Haupt bedeckte dieser Hut besonders peinlich.
E: On Mahlke's head this hat made a particularly painful impression.

Topicalized to non-topicalized:
$\mathrm{G}: \mathrm{Zu}$ den sechs kamen noch drei weitere.
E :Three others joined these six in the afternoon.

Accent placement and topicalization frequencies in translating German topicalized arguments into English

|  | focus accent on <br> the German <br> subject | accent elsewhere |
| :---: | :---: | :---: |
| topicalization in <br> the English <br> translation | 0 | 31 |
| no topicalization <br> in the English | 25 | 100 |

Distribution of contrastive topicalization by focus (second accent) placement in Middle English
(Speyer 2008)

| focus <br> disrribution position <br> of cases | focus on <br> subject | focus on <br> tensed verb | focus <br> elsewhere |
| :---: | :---: | :---: | :---: |
| $N$ (total= 207) | 113 | 29 | 65 |
| $\%$ inversion | 89 | 14 | 71 |
| $\%$ of cases | 55 | 14 | 31 |

## Frequency of matrix clause topicalization and V2 in Middle and Early Modern English

| sentence type <br> pimed | mel | me2 | me3 | me4 | emel | eme2 | eme3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# sent. with DO | 2855 | 1300 | 4615 | 2271 | 3229 | 3584 | 2544 |
| \# topicalized | 219 | 69 | 145 | 66 | 67 | 82 | 28 |
| \% topicalized | 7.7 | 5.3 | 3.1 | 2.9 | 2.1 | 2.3 | 1.1 |
| \#V2 | 162 | 34 | 89 | 46 | 35 | 27 | 4 |
| \%V2 | 74 | 49.3 | 61.4 | 70.2 | 52.2 | 32.9 | 14.3 |

## Rate of V2 loss in English with topicalized objects and PPs



## Corrected frequency of matrix clause topicalization andV2 in Middle and Early Modern English

| time period <br> sentence type | mel | me2 | me3 | me4 | emel | eme2 | eme3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \# sent. with DO | 2855 | 1300 | 4615 | 2271 | 3229 | 3584 | 2544 |
| \# topicalized | 219 | 69 | 145 | 66 | 67 | 82 | 28 |
| would have been <br> topicalized | 219 | 100 | 354 | 174 | 248 | 275 | 195 |
| actual rate ofV2 | 74 | 49.3 | 61.4 | 70.2 | 52.2 | 32.9 | 14.3 |
| corrected rateV2 | 74.0 | 34.0 | 25.1 | 26.4 | 14.1 | 9.8 | 2.1 |

## Rate of V2 loss in English corrected for clash avoidance



## French

## V2 in Old and Middle French

(1) l'estreu li tint sun uncle Guinemer the stirrup him held his uncle Guinemer Roland 27.329
(2) Espaigne vus durat il en fiet Spain you will-give he in fief Roland, 36.446
(3) or est ele bien venue now is she welcome Yvain 43.1440

# Decline of XP fronting in French in sentences with overt subjects 


_ Old French $\quad$ _ Middle French __ Modern French

## V2 frequency: sentences with full NP subjects


_ Old French $\quad$ _ Middle French __ Modern French

V2 frequency: sentences with overt pronoun subjects

_ Old French $\quad$ _ Middle French __ Modern French

## Corrected evolution of V2 word order in French in sentences with full DP subjects



## Germanic and Romance inversion in Old and Middle French

"Germanic" inversion in Old and Middle French
(1) messe e matines ad li reis escultet mass and matins has the king heard Roland 11.139
(2) chars avoient ils assés meat had they enough $\quad \begin{gathered}\text { Froissart, } 135.569\end{gathered}$
(3) une chose ont-ilz asez honneste one thing have-they enough honest Commynes, 120.1634

## "Romance" inversion in Old French

(1) ... puis si chevalchet od sa grant ost li ber then so rides with his great army the baron

Roland, 179.2438
(2) ... ço ad tut fait Rollant that has all done Roland

Roland, 24.301
(3) ceste parole ot escoutee li seneschax this speech has heard the seneschal Yvain 134.4663

## Ambiguous cases

(1) Après parlat ses filz envers Marsilies then spoke his son to Marsilies

Roland 37.466
(2) Bien fiert nostre guarent well fights our guardian

Roland 124.1665
(3) Mult fierement chevalchet li emperere very proudly rides the emperor Roland 23.3296

## Temporal evolution of V2 with full DP subjects for all types of preposed XP

|  | sentences with <br> an auxiliary verb | sentences with <br> a single verb |
| :---: | :---: | :---: |
| Old French | $0.86[218]$ | $0.83[2163]$ |
| Middle French | $0.69[402]$ | $0.70[3633]$ |
| Modern French | $0.27[33]$ | $0.22[160]$ |

Temporal evolution of Germanic and Romance inversion in V2 sentences with auxiliary verbs (sentences with topicalized XPs and full DP subjects)

|  | frequency of <br> Germanic <br> inversion | frequency <br> of Romance <br> inversion | Romance $\boldsymbol{+}$ <br> Germanic <br> inversion |
| :---: | :---: | :---: | :---: |
| Old French | 0.50 | 0.36 | 0.86 |
| Middle French | 0.32 | 0.37 | 0.69 |
| Modern | 0.03 | 0.24 | 0.27 |

## An independence result

|  | Romance + <br> Germanic <br> inversion | sentences with <br> a single verb |
| :---: | :---: | :---: |
| Old French | 0.86 | 0.83 |
| Middle French | 0.69 | 0.70 |
| Modern French | 0.27 | 0.22 |

Why does French completely lose object topicalization?

# Rise of clitic left-dislocation and loss of topicalization (Priestley 1955) 



## Modern French clitic left dislocation

(1) Le Figaroi, Jean *( $\mathrm{le}_{\mathrm{i}}$ ) lit tous les jours.

The Figaro John it reads every day
(2) Ma femme ${ }_{i}$, elle $e_{i}$ travaille à la Bibliothèque Nationale. My wife she works at the library national

Temporal evolution of subject and object left dislocation frequencies per thousand sentences

|  | frequency of <br> subject left <br> dislocation | frequency of <br> object left <br> dislocation | number of <br> matrix <br> clauses |
| :---: | :---: | :---: | :---: |
| Old French | 2.6 | 2.2 | 12022 |
| Middle French | 3.8 | 1.8 | 24634 |
| Early Modern | 28 | 4.3 | 3514 |

## Cleft sentences in Modern French

(1) C'est Le Figaroi que Jean lit $t_{i}$ tous les jours. It's The Figaro that John reads every day
(2) C'est ma femme ${ }_{i}$ qui $t_{i}$ travaille à la BN . It's my wife that works at the BN
(3) Il y a un $\mathrm{an}_{\mathrm{i}}$ qu'elle travaille à la $\mathrm{BN} \mathrm{t}_{\mathrm{i}}$. It's one year that-she works at the BN

## Temporal evolution of cleft sentence frequencies per thousand sentences

|  | frequency of <br> temporal <br> clefts | frequency of <br> subject and <br> object clefts | number of <br> matrix <br> clauses |
| :---: | :---: | :---: | :---: |
| Old French | 1.2 | 0.25 | 12022 |
| Middle French | 0.41 | 0.61 | 24634 |
| Early Modern | 0.56 | 5.4 | 3514 |

Finis

The decline of OV word order

## AuxOV word order in early Middle English

(I) for pa twelf kunreden sculden per mide heore purst kelen. for the twelve kinfolk should therewith their thirst cool.
(CMLAMBI,I4I.27I)
(2) Herode king ma33 swipe wel Pe lape gast bitacnenn; Herod king may very well The Evil Spirit betoken;
(CMORM, I, 280.2285)
(3) for no man ne mai his sinnes bete; er he habbe nume shrift perof. for no man may his sins atone; before he has taken shrift thereof.
(CMTRINIT, 59.796)
(4) ... pat Frolle wolde mid faehte France bitellen.
... that Frolle would with violence France defend.
(LAYAMON, 6I8.2I5I)

## $\mathrm{OV}_{\text {fin }}$ word order in early Middle English

for æuric rice man his castles makede for every rich man his castles made
(CMPETERB, 55.425)
and eft sone ech at shrifte pat ilke bihoteð. and repeatedly each at shrift that same promises.
(CMTRINIT, 6I.837)
and fele here lif fulliche lateð.
and many their life fully surrender.
(CMTRINIT, I8I.2470)

His cun i pisse londe ure aelderne a-qualden. His kin in this land our elders killed.
(LAYAMON, 522.706)
Cador his sweord an-hof
Cador his sword up-lifted

## AuxOV word order in early Old French

(I) Li reis Marsilies ad la culur muee; (II00-ROLAND, 34.4I9) the king Marsilies has the color changed
(2) Quant la dame ad la messe oïe,Ariere vait, when the lady has the mass heard back goes
(II6X-M-D-F, I9.352)
(3) Li sire en ad Deu mercié; the lord for-it has God thanked
(II6X-M-D-F, 45.886)
(4) Chaucuns ha la seue espousee
(II90-BORON-V, I03.1639) each has the his married

## AuxOV word order in later Old French

(I) Quant li rois ot ceste parole dite si se tot, when the king had this word said, SI REFL was-silent
(I225-QUESTE, 3 I.726)
(2) La parole que cis dist a moult les autres meüs, the word that this-one said has much the others moved
(I27X-CASSIDORUS, 6.85)
(3) Quant les jouvenceaulx eurent leur ante emprisonnee.... when the young-men had their aunt imprisoned
(I33X-PERCEFOREST, 99.656)
(3) Li honme de la ville avoient le pont desfait. the men of the city had the bridge destroyed
(I373-FROISSART, 385.7693)

## $\mathrm{OV}_{\text {fin }}$ word order in early Old French

(I) Sainz Alexis la sue li alascet:

Saint Alexis the his him gave
(IOXX-ALEXIS, 75.69I)
(2) Et Engelers li Guascuinz de Burdele Sun cheval brochet, and Engelers the Gascon of Burdele his horse spurred
(II00-ROLAND, I00.I292)
(3) Pois li prophetes Samuel une pierre leva, Then the prophet Samuel a stone lifted
(II50-QUATRELIVRE, I5.473)

## $\mathrm{OV}_{\text {fin }}$ word order in later Old French

(I) se ele cheval li done bon et bel ....
if she horse him gives good and beautiful
(I225-QUESTE, I 22.3246 )
(2) ...entendra que qui eglise edifie lo regna daus ceus s'aparellia. ...means that who church builds the reign of heaven acquires
(I22X-PS-TURPIN, 332.2055)
(3) ...dist ... que qui peche encontre le Saint Esperit ja merci n'en aura, ...says ... that who sins against the HS so mercy not EN will-have
(I279-SOMME I, 25.675)

## The problem of poetry

(I) Li reis Marsilies ad la culur muee;

De sun algeir ad la hanste crollee.
(IIO0-ROLAND, 34.4I9-20))
(2) It failleth nat whils it is in youre hoold And whan this knyght hath thus his tale toold
(I390-CHAUCER-SQT, 58-59)
(3) They told her to return at once to Steve, But she her child would never ever leave.
(Modern English doggerel)

Frequency of AuxOV word order in English


## Frequency of $\mathrm{OV}_{\text {fin }}$ word order in English



Frequency of AuxOV compared to $\mathrm{OV}_{\text {fin }}$ in English


## Frequency of $\mathrm{OV}_{\text {fin }}$ word order in French



## Frequency of $\mathrm{OV}_{\text {fin }}$ word order in French, subject pronouns removed



## Frequency of AuxOV word order in French



Frequency of $A u x O V$ compared to $\mathrm{OV}_{\text {fin }}$ in French


