Old English conjoined main clauses revisited

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Outline

Clause type effects in Old English
- Observations
- Formal Analysis

Methodology
- Periodization
- Data collection

Hypothesis testing
- Regarding IP-headedness
- Regarding V-to-C movement
- Regarding pronominal scrambling

Conclusion

Main vs. conjoined clauses

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  2. **V-to-C movement**: MCs show higher rates of high verb placement than CCs.
  3. **Pronominal scrambling**: MCs and CCs differ in their behaviour regarding non-subject pronouns.

IP headedness

(1) a. Se engel **gehyrte** hi mid his wordum
the angel encouraged them with his words
'The angel encouraged them with his words'
(cocathom1,ÆCHom_I,_13:284.110.2451)

b. & þæt folc nugyt þæt tacn Iosepes
and that people now-yet that token Joseph
gesetnesse **æfterfylgeað**
law after-follows
'And the people still follow that aspect of Joseph's law'
(coorosiu,Or_1:5.24.13.472)

V-to-C movement

(2) a. **Ne wylle** we þeh her na mare scaðe awritan
not will we though here no more scathe write
'We will not here, however, record any more injury'
(cochronD,ChronD_[Classen-Harm]:1079.11.2519)

b. & heo him hyran **ne woldon**
and they him hear not would
'But they would not listen to him'
(cobede,Bede_2:2.98.19.917)

Pronominal scrambling

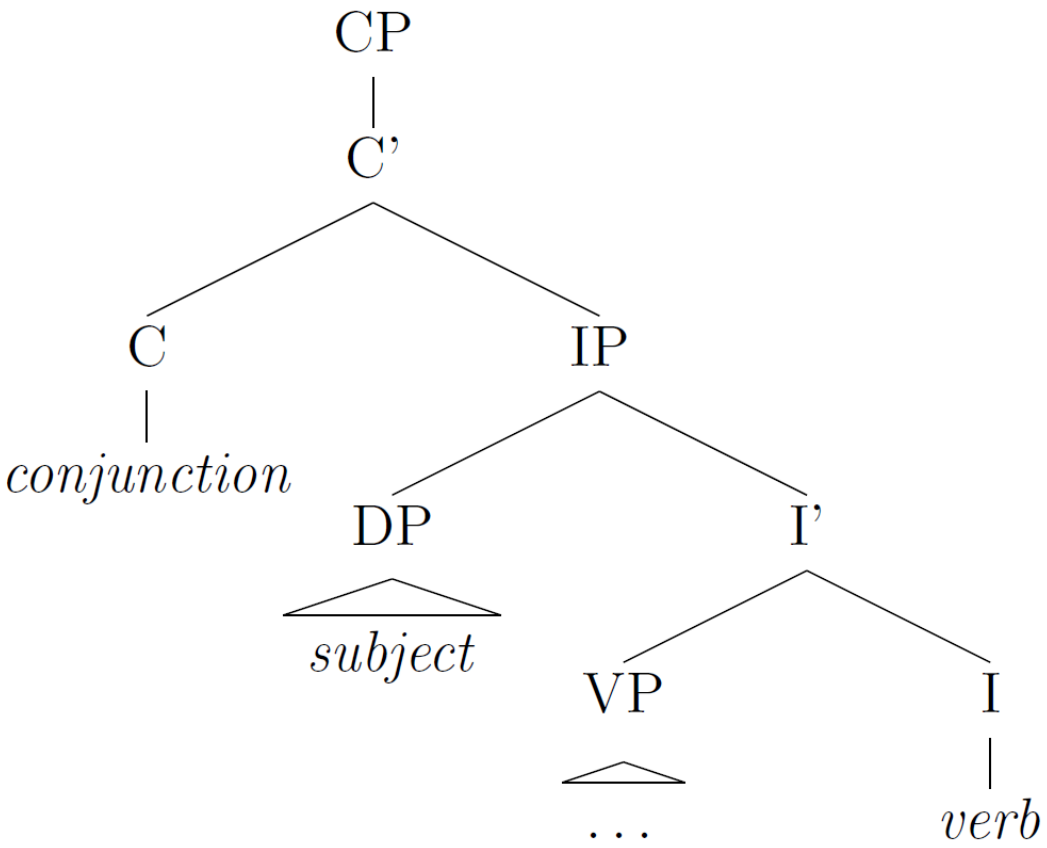
(3) a. & **God** hine ða genam of þisum life upp
and God him then took of this life up
'And God then lifted him up from this life'
(colsigewZ,ÆLet_4_[SigeweardZ]:182.64)

b. **Iosue** him ða feng on mid gefeohte
Joseph him then received with fighting
'Joseph then attacked him'
(cootest,Josh:10.9.5447)

c. & him **Scipia** sende sciphere æfter
and them Scipia sent ship-army after
'And Scipia sent a fleet after them'
(coorosiu,Or_4:10.106.31.2216)

d. ?* Him **Scipia** sende sciphere æfter

Conjunctions can be C heads



- Variation between C-head conjunctions and logical connectors

Clause typing

(4) a. *CPs can have various types*

$$\text{CP[\_type]} = \{\text{CP[TOPIC], CP[CONJ], ... CP[REL]}\}$$

b. *If a clause-initial topic is used, the type is* TOPIC

$$\begin{array}{lcc} \text{CP[\_type]} \rightarrow & \text{XP} & \text{C'[\_type]} \\ & (\uparrow\text{TOPIC})=\downarrow & \uparrow=\downarrow \\ & (\uparrow\text{TOPIC})=(\uparrow\text{GF* GF}) & \text{[\_type]=TOPIC} \end{array}$$

c. *Otherwise the type is left unspecified*

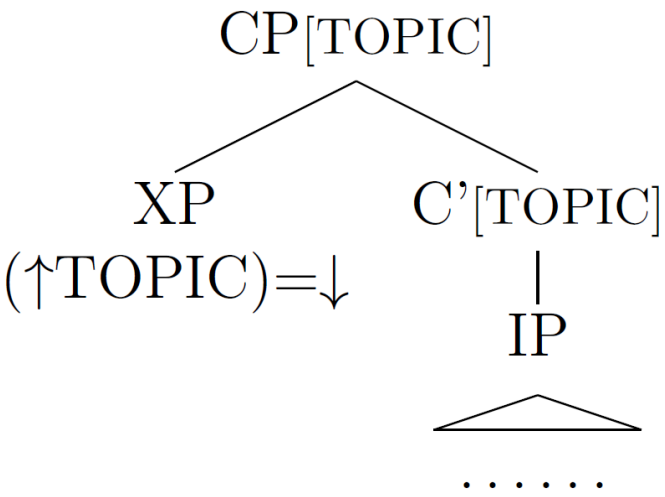
$$\begin{array}{l} \text{CP[\_type]} \rightarrow \text{C'[\_type]} \\ \qquad\qquad\qquad \uparrow=\downarrow \\ \text{C' [\_type]} \rightarrow \text{C[\_type]} \qquad \text{IP} \\ \qquad\qquad\qquad \uparrow=\downarrow \qquad \uparrow=\downarrow \end{array}$$

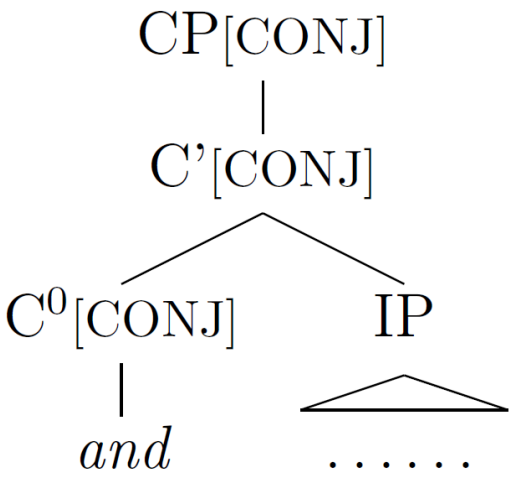
d. *C-head conjunctions in the lexicon type a CP as* CONJ

$$\begin{array}{ll} \textit{and} & \text{C[CONJ] } (\uparrow\text{COORD})= \text{conjunctive} \\ \textit{ac} & \text{C[CONJ] } (\uparrow\text{COORD})= \text{contrastive} \\ \ldots & \end{array}$$

No simultaneous topicalization and C-head conjunction

(5) a. [$_{CP}$ Mary [$_{IP}$ I like]].
b. *[$_{CP}$ Mary [$_{C'}$ and [$_{IP}$ I like]]].





Pronoun positions

(6) a. þeah ðe we hit eow nu secgan
though we it you now say
'although we say it now to you'
(coaelive,ÆLS[Ash_Wed]:11.2712)

b. *Ordered sequence of pronouns above SpecIP*

$$\begin{array}{lccc} \text{IP} \rightarrow & \text{DP}_{[\text{pro}]} & & \text{IP} \\ & (\uparrow \text{SUBJ}) & <f\ (\uparrow \text{OBJ}) & \uparrow = \downarrow \end{array}$$

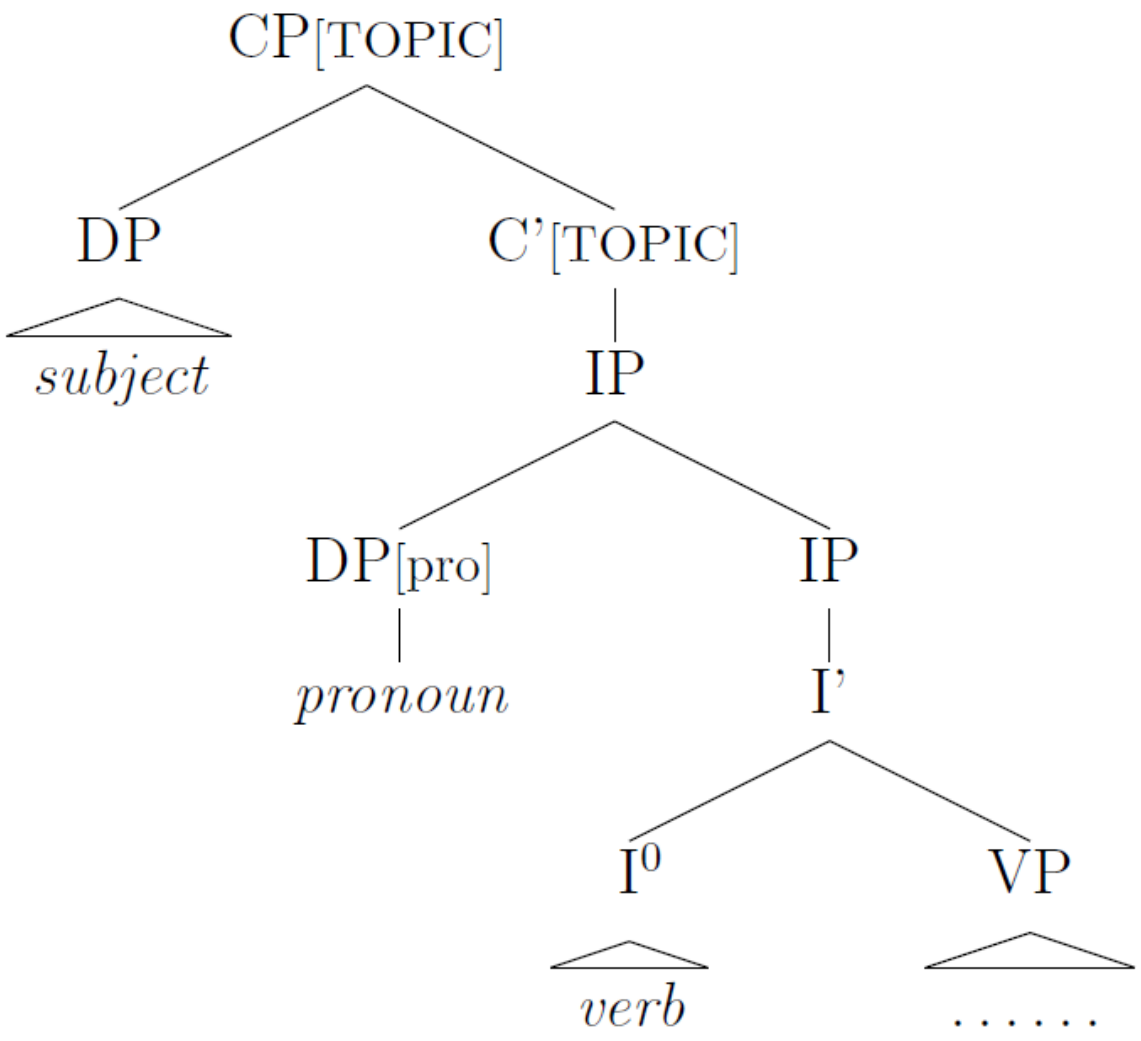
SpecIP - subject or topic position?

(7) a. Gif þu [wætan] dest <u>to</u>
if you fluid do to
'If you add some fluid'
(colaece,Lch_II_[1]:73.1.2.1980)

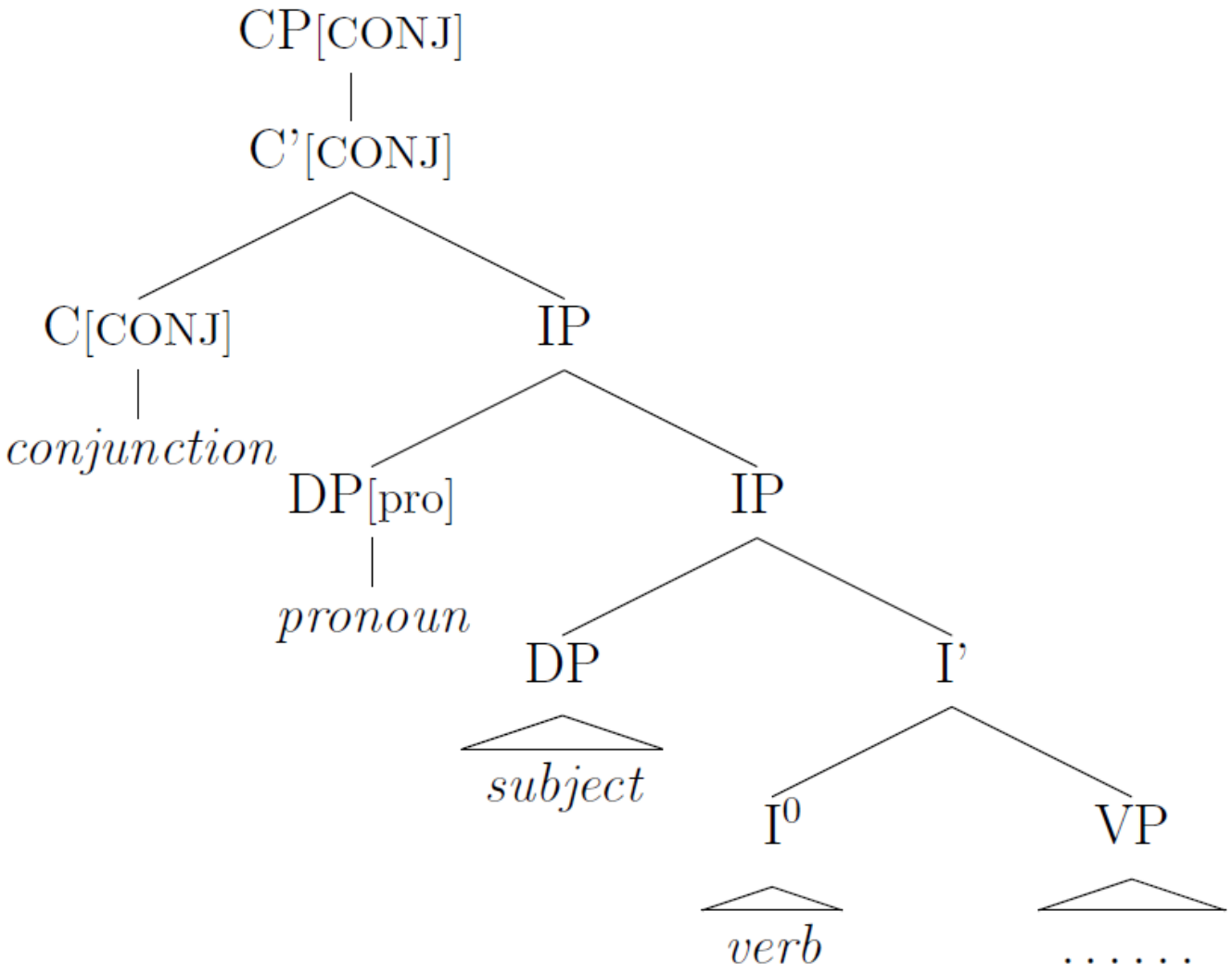
b. & þa oðre [ða dura] bræcon þær <u>adune</u>
and the others the doors broke there down
'And the others broke the doors'
(cochronE,ChronE_[Plummer]:1083.23.2787)

c. forþon þe [Gode] is his folc swyþe leof
because God is his people very dear
'because the people is very dear to God'
(coblick,HomS_14_[BlHom_4]:45.127.578)

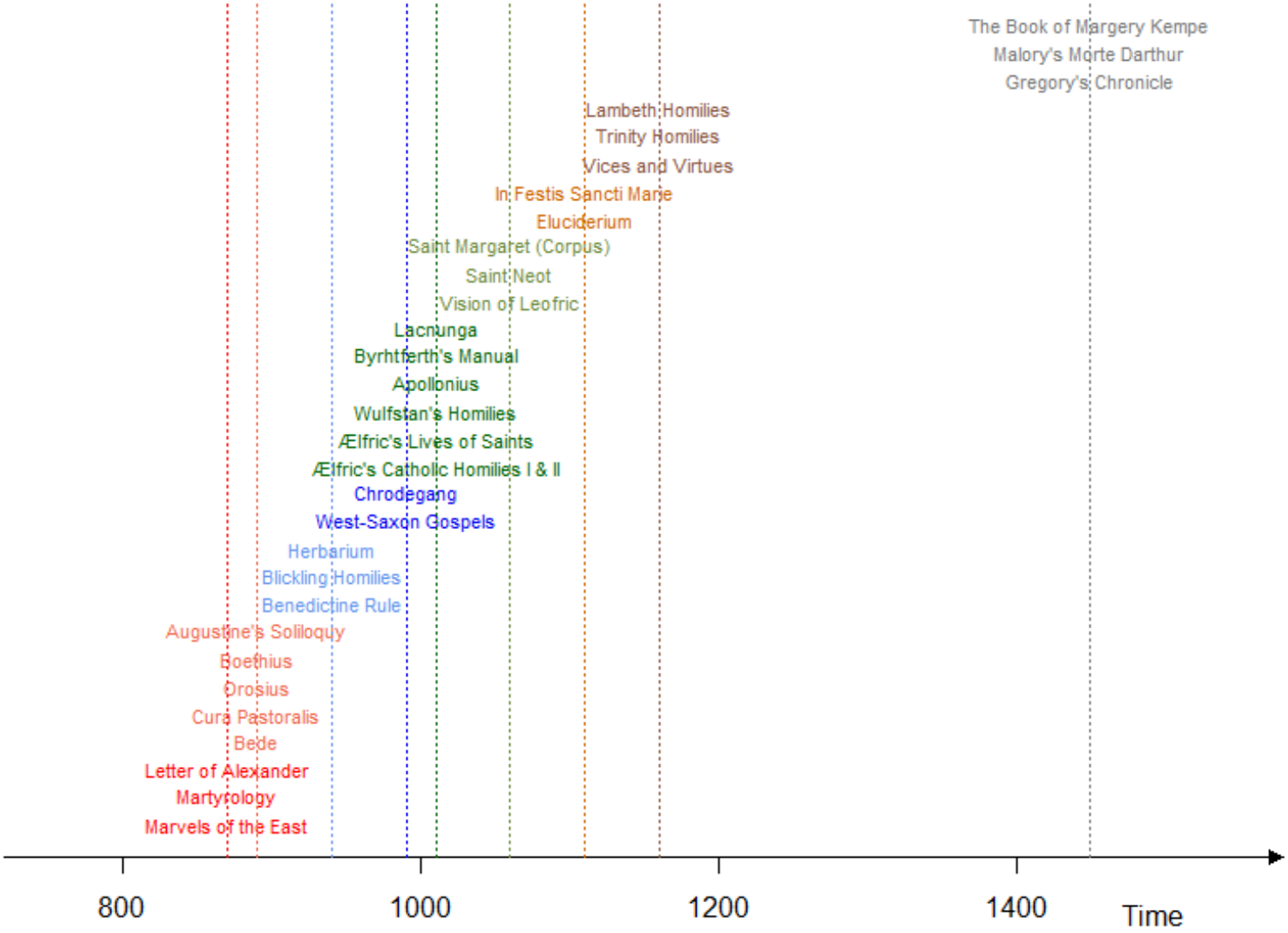
Full subjects normally topicalize



With C-head conjunctions full subjects occur low



Early English text chronology



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- Statistical evaluation in *R*
- Investigation of many specific hypotheses
- For time reasons, focus on only 5 of those hypotheses

Loss of I-final headedness

- **H1**: The loss of I-final structures should be faster in CCs than in MCs. As C-head conjunctions decrease, more verbs move to C^0 and fewer I-final structures manifest themselves. The loss of C-head conjunctions should speed up the loss of I-final headedness.

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3. independent variables: (i) period, (ii) clause type (MC, CC, subordinate clauses/SC)

IP headedness illustrated

(8) a. *Necessarily I-final*

ac Iudeas hine eft mið stanum **ofwurpon**
but Jews him again with stones off-threw

'But the Jews killed him afterwards with stones'
(comart1,Mart_1_[Herzfeld-Kotzor]:De26,A.4.71)

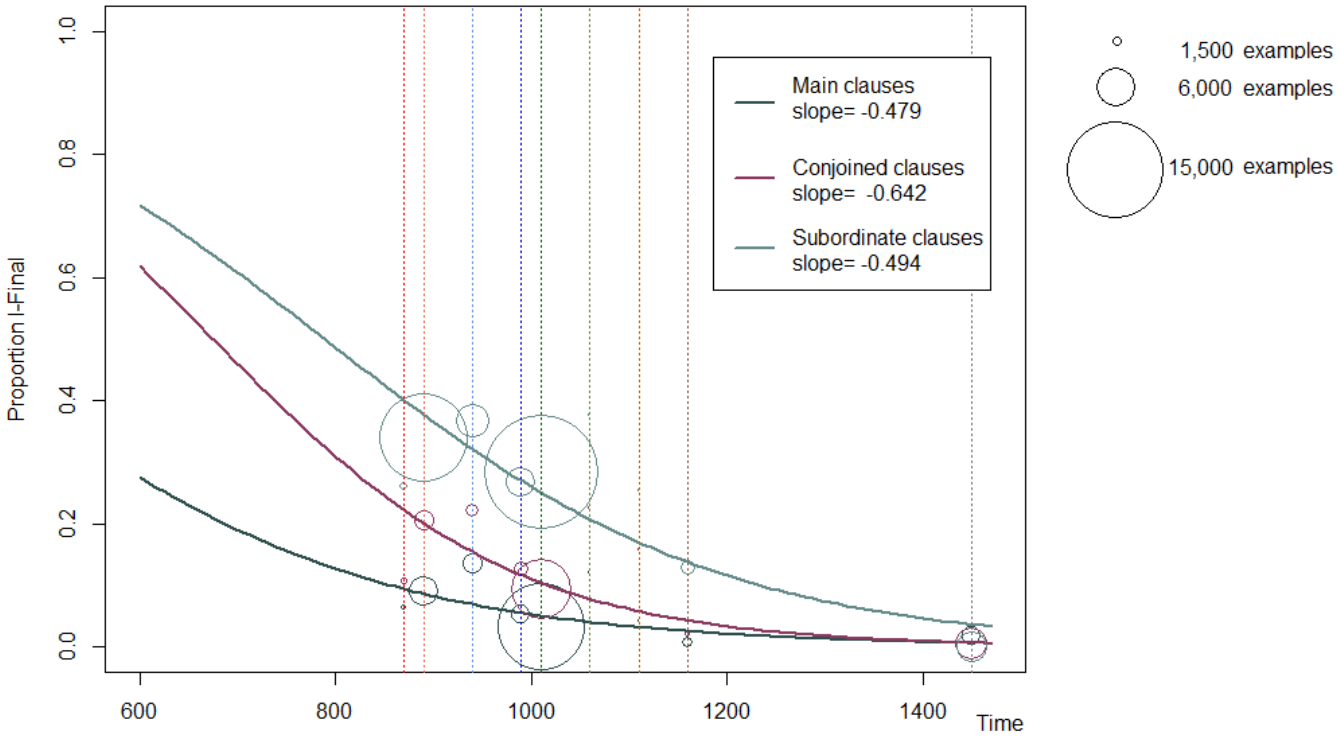
b. *Other IP-headedness*

Sancta Margareta him **andswerode**
Saint Margaret him answered

'St. Margaret answered him'
(comargaC,LS_14_[MargaretCCCC_303]:7.8.98)

Development of I-final headedness in three clause types

Factor	Estimate	Wald (z^2)	df	p
(Intercept)	1.903	38.33	1	<0.001***
Period	-0.479	231.77	1	<0.001***
Type(CC)	2.429	38.39	1	<0.001***
Type(SC)	1.998	37.37	1	<0.001***
Period:Type(CC)	-0.163	16.50	1	<0.001***
Period:Type(SC)	-0.016	0.22	1	0.6360



Separation effects in I-final structures

- **H2**: The frequency and development of I-final structures should be sensitive to the position of the conjunction. If the conjunction can be analyzed as a C-head, one would expect more I-final structures and a faster rate of change than in MCs. If the conjunction must be a logical connector, one would expect the same frequency of I-final structures and the same rate of change as in MCs. A conjunction must be a logical connector where it is separated from the IP.

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   - Necessarily I-final clauses
   - Other IP headedness: All other cases of V-to-I
5. independent variables: (i) period, (ii) clause type

Separated and adjacent CCs

(9) a. *CC-separated: necessarily logical connector*

& [$_{PP}$ on ðam seofoðan dæge] **he** geendode his
and on the seventh day he ended his
weorc.
work

'And on the seventh day, he finished his creation'
(cocathom1,ÆCHom_I,_1:182.95.90)

b. *CC-adjacent: potential C-head conjunction*

and **he** ða mid geleafan his lif geendode.
and he then with belief his life ended

'And he then ended his life with faith'
(coaelive,ÆLS_[Maccabees]:104.4880)

CC-adjacent show high frequency of I-final structures

Contingency table

Clause type	I-final	Other
MC	728	13119
CC-separated	318	4003
CC-adjacent	1393	7563

Proportion table

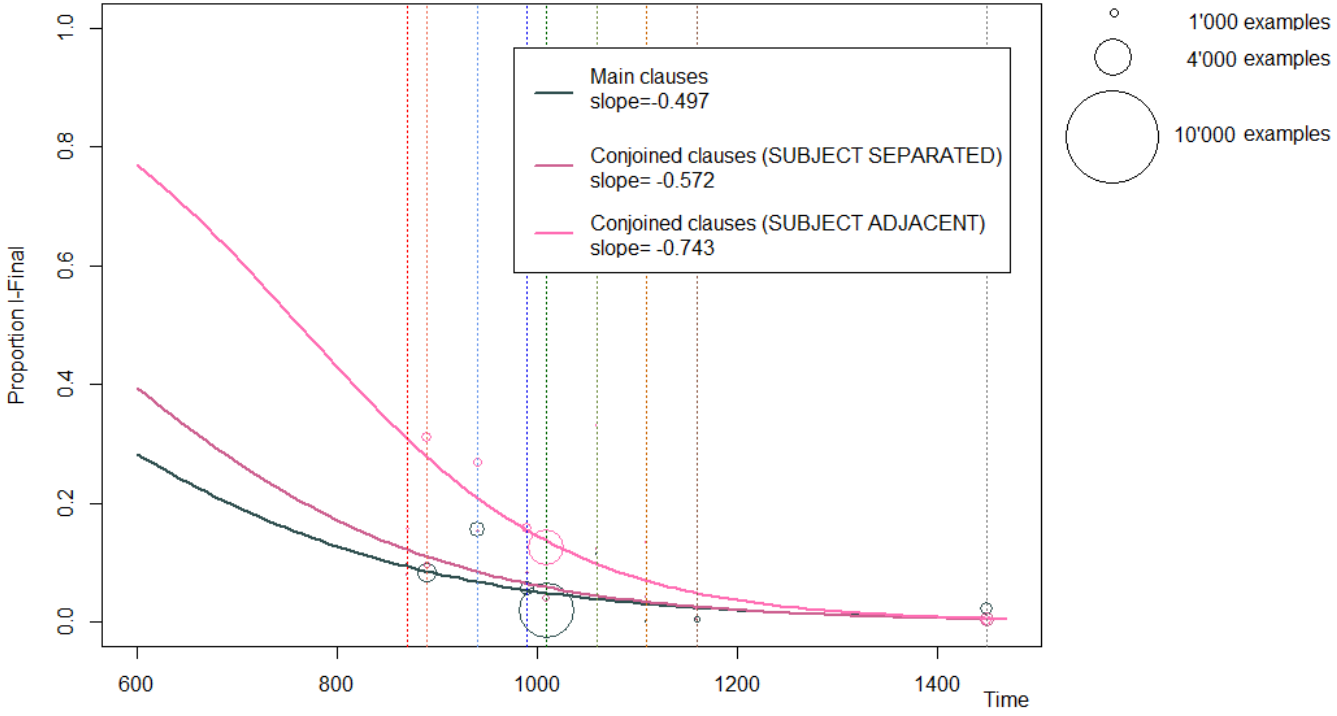
Clause type	I-final	Other
MC	5.26%	94.74%
CC-separated	5.16%	94.84%
CC-adjacent	15.55%	84.45%

Significance levels

	MC	CC-separated
CC-adjacent	χ^2=682.21, df = 1, p<0.001***	χ^2=287.59, df = 1, p<0.001***
CC-separated	χ^2=0.04 , df = 1, p=0.843	-

Development of I-final headedness with two CC-types

Factor	Estimate	Wald (z^2)	df	p
(Intercept)	2.051	19.47	1	<0.001***
Period	-0.496	108.58	1	<0.001***
Type(CC-Separate)	0.954	1.57	1	0.2100
Type(CC-Adjacent)	3.613	32.86	1	<0.001***
Period:Type(CC-Separate)	-0.075	0.94	1	0.3325
Period:Type(CC-Adjacent)	-0.247	14.51	1	<0.001***



Different rates of loss of V-to-C movement

- **H3**: MCs should lose V-to-C movement faster than CCs. As C-head conjunctions decrease, the C position becomes a potential verb position more frequently, compensating for the loss of V-to-C movement in CCs. This is the inverse pattern of the development of I-final headedness.

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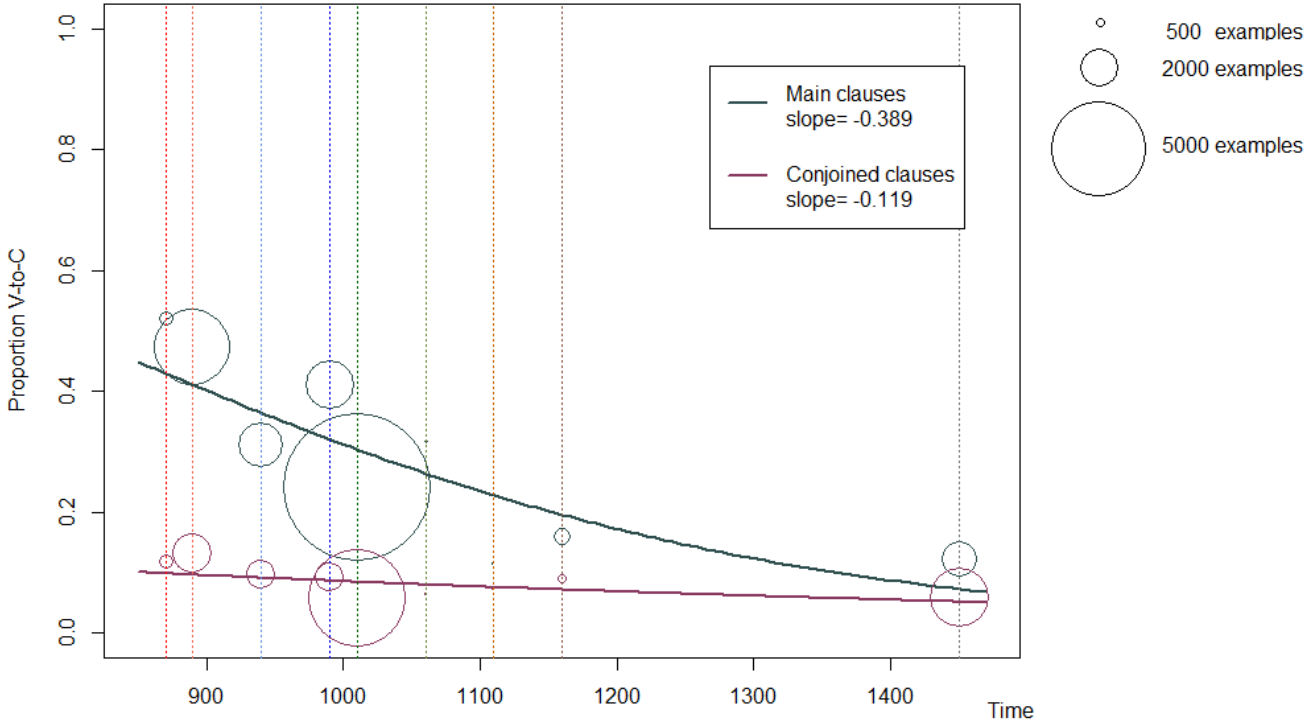
   - *subject* - *verb* indicates V-to-I
3. independent variables: (i) period, (ii) clause type (MC, CC), (iii) polarity (positive, negative), (iv) initial constituent (*þa/þonne*, Null, Other)

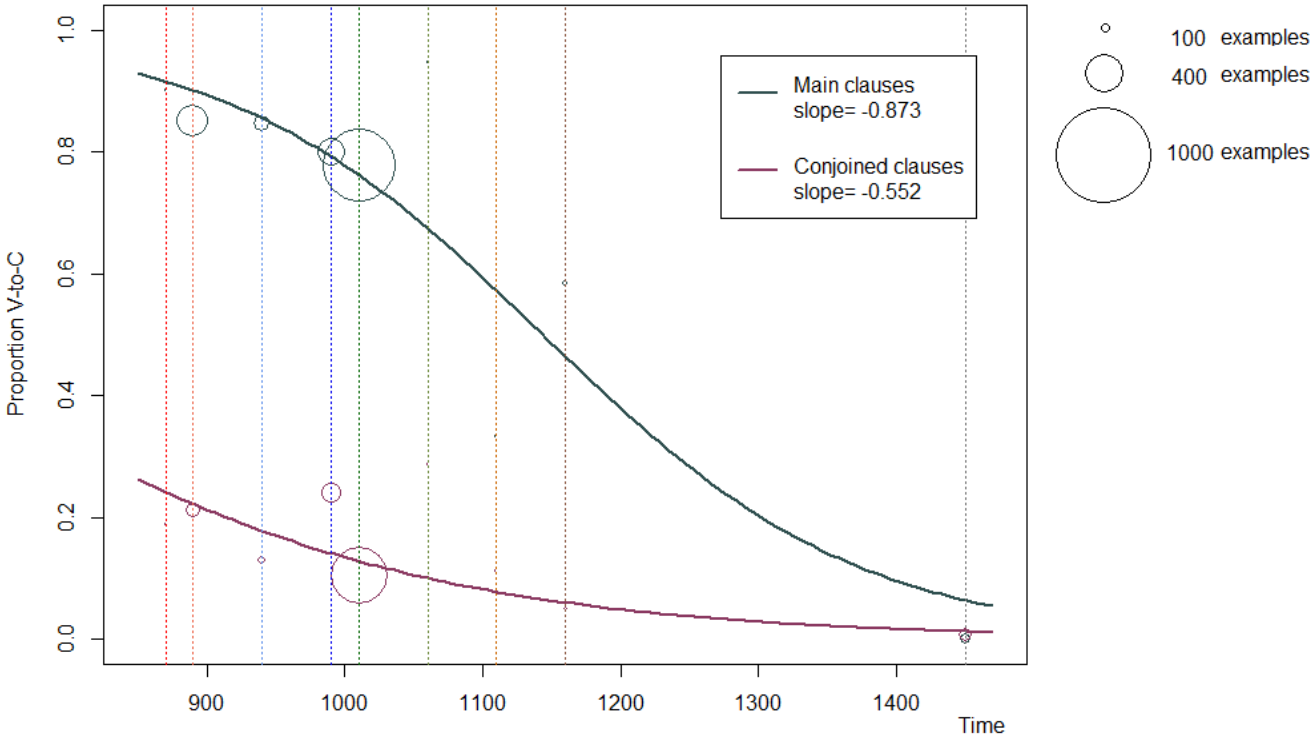
Development of V-to-C movement - All contexts

Factor	Estimate	Wald (z^2)	df	p
(Intercept)	3.105	448.59	1	<0.001***
Period	-0.389	690.11	1	<0.001***
Type(CC)	-4.281	3402.03	1	<0.001***
Period:Type(CC)	0.270	142.80	1	<0.001***



Development of V-to-C movement - Neg V1

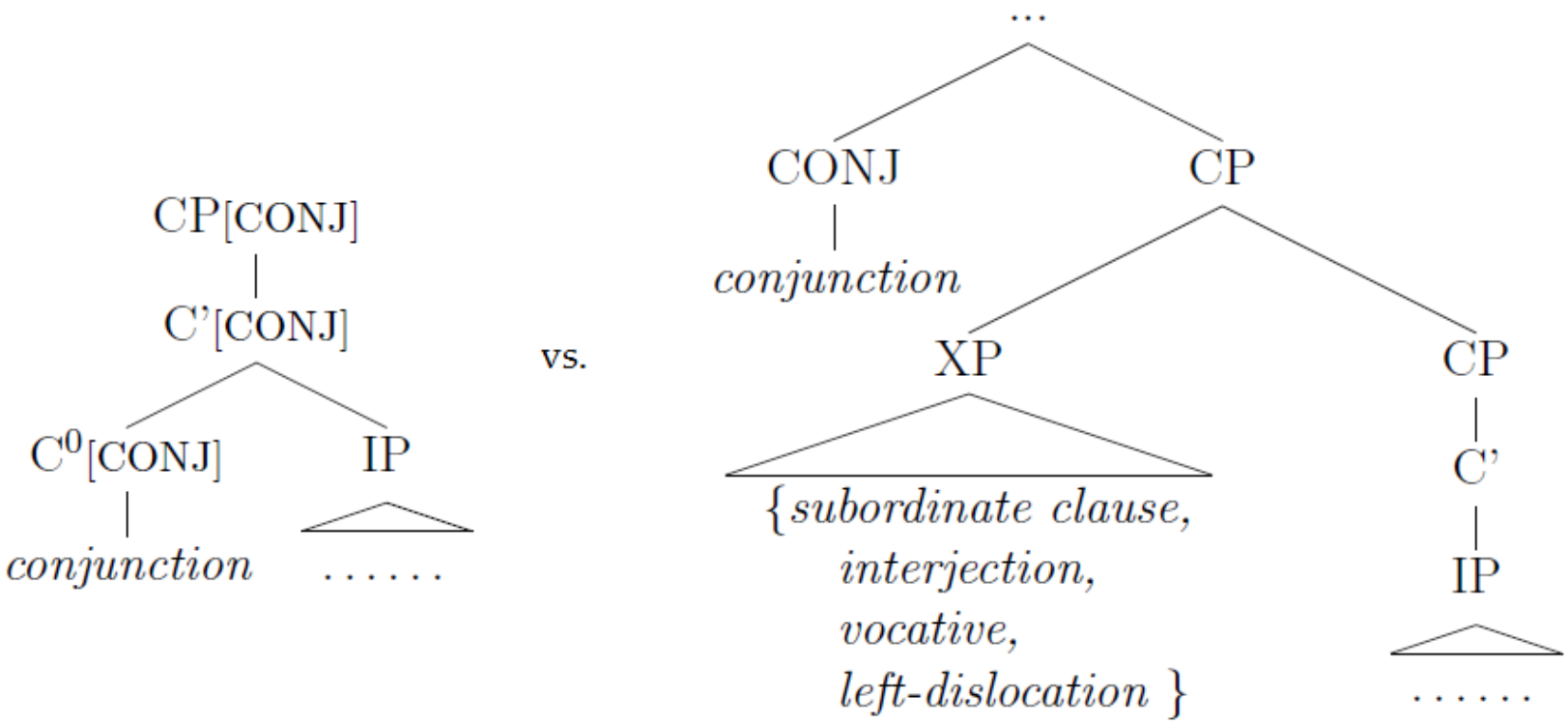
Factor	Estimate	Wald (z^2)	df	p
(Intercept)	9.976	215.91	1	<0.001***
Period	-0.873	168.74	1	<0.001***
Type(CC)	-6.313	25.06	1	<0.001***
Period:Type(CC)	0.320	6.33	1	0.012*



Separation effects

- **H4**: MCs should lose V-to-C movement at the same rate as CCs where C-head conjunctions are impossible. This is the case if a constituent separates the conjunction from the IP. In such separation contexts, the conjunction cannot possibly be in C^0 but must be an innovative logical connector instead.

Separation prevents C-head conjunctions



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5. independent variables: (i) period, (ii) clause type (MC, CC)

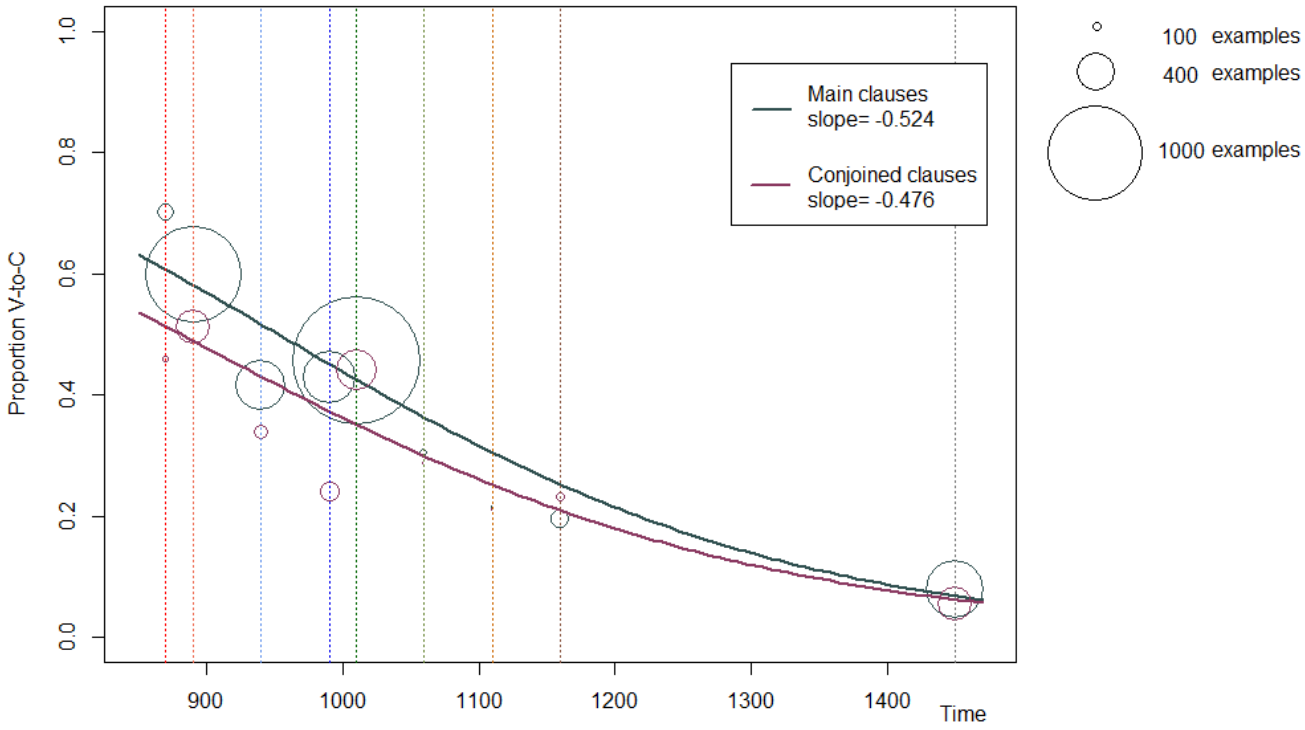
CCs with separation - Examples

(10) a. Ac [$_{CP}$ siðþan ic hyt þa ongyten hæfde], þa
But when I it then understood had, then
forlæt ic þa sceawunga mid þam eagum
abandoned I the looking with the eyes
'But when I had understood it, I stopped looking'
(cosolilo,Solil_1:22.7.284)

b. & [$_{DP}$ se ðe of ðam hlafe geet]$_i$. ne swylt he$_i$
and he who of the loaf eats, not dies he
on ecnysse.
in eternity
'He who eats of the bread will not die in eternity'
(cocathom1,ÆCHom_I,_2:192.82.362)

MCs and CCs with separating constituents

Factor	Estimate	Wald (z^2)	df	p
(Intercept)	4.992	329.46	1	<0.001***
Period	-0.524	357.85	1	<0.001***
Type(CC)	-0.799	2.73	1	0.0985
Period:Type(CC)	0.048	0.00	1	0.3191



Difference in *non-subject pronoun - full subject* orders

- **H5**: The word order *non-subject pronoun - full subject* should exist in CCs but not in MCs. Full subjects usually topicalize to SpecCP, thus preceding high non-subject pronouns. Where a C-head conjunctions blocks topicalization, a full subject may occur low, following high non-subject pronouns.

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2. three contexts for word order variable:
   - With a postverbal diagnostic element
     (conjunction) - pronoun - full subject ... verb ... diagnostic
     (conjunction) - full subject -pronoun ... verb ... diagnostic

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     (conjunction) - full subject -pronoun ... verb ... diagnostic
   - With a one-word element in postverbal position
     (conjunction) - pronoun - full subject ... verb ... 1W-element
     (conjunction) - full subject - pronoun ... verb ... 1W-element

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     (conjunction) - full subject -pronoun ... verb ... diagnostic
   - With a one-word element in postverbal position
     (conjunction) - pronoun - full subject ... verb ... 1W-element
     (conjunction) - full subject - pronoun ... verb ... 1W-element
   - All contexts
     (conjunction) - pronoun - full subject ... verb
     (conjunction) - full subject -pronoun ... verb

H5 Procedure

1. Comparison of *pronoun - Subject* vs. *Subject - pronoun* orders
2. three contexts for word order variable:
   - With a postverbal diagnostic element
     (conjunction) - pronoun - full subject ... verb ... diagnostic
     (conjunction) - full subject -pronoun ... verb ... diagnostic
   - With a one-word element in postverbal position
     (conjunction) - pronoun - full subject ... verb ... 1W-element
     (conjunction) - full subject - pronoun ... verb ... 1W-element
   - All contexts
     (conjunction) - pronoun - full subject ... verb
     (conjunction) - full subject -pronoun ... verb
3. clause type: MCs vs. CCs

CCs with *pro* - *SUBJ* and *SUBJ* - *pro* order

(11) a. *pro* - *SUBJ*

& mec **þas elreordegan** nu her bysmergeað.
and me these foreigners now here mock

'And these foreigners are now mocking me here' (coalex,Alex:33.1.416)

b. *SUBJ* - *pro*

ac **heora ingehyd** heo þræsteð heora
but their mind them torments their
wites to ecan.
punishment to increase

'But their mind torments them as an increase of their punishment' (coalcuin,Alc_[Warn_35]:340.246)

The order *pronoun - full subject* is common in CCs

- Diagnostic

Clause type	pro - S	S - pro
MC	0	86
CC	3	51

Fisher's Exact Test, $p = 0.055$

- 1W-element

Clause type	pro - S	S - pro
MC	3	235
CC	23	170

$\chi^2 = 19.5$, df = 1, $p < 0.001$***

- All contexts

Clause type	pro - S	S - pro
MC	22	889
CC	165	747

$\chi^2 = 119.98$, df = 1, $p < 0.001$***

Conclusion

- Extensions:

Conclusion

- Extensions:
  1. Etymology

Conclusion

- Extensions:
  1. Etymology
  2. Discourse factors

Conclusion

- Extensions:
  1. Etymology
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Conclusion

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Conclusion

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- Constituent structure and Constant Rate Effects

MCs and CCs: Similar surfers, different waters

Thank you for your attention!

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