

Information-structure driven word order variation in the history of English: a phase-based approach

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Roadmap

(re)Examination of Old English (OE) and early Middle English (eME) OV/VO Variation

New insights

- Old English (OE) and early Middle English (eME) OV word order (both AuxV and VAux) with referential objects is characterised by givenness of the object
- There is no evidence that quantified and negated objects are syntactically different from referential objects

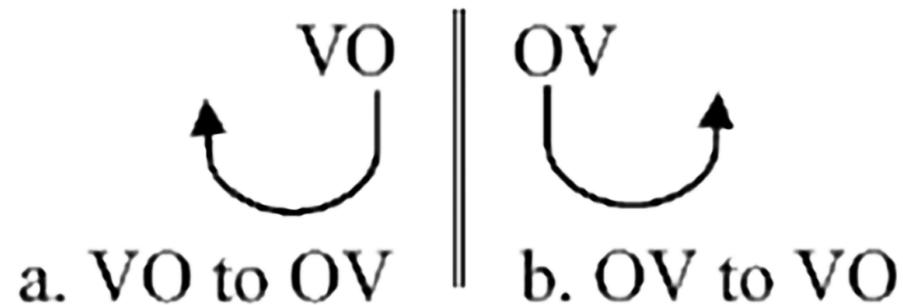
Unified syntactic analysis

- Phase-based approach → all preverbal objects are the result of movement to spec,v
- Some types of objects (referential/quantified/negated) have an extra feature layer which needs to be valued
- Movement is triggered by an Edge Feature (EF) on v causing movement to value that extra feature
- The feature layer for quantified and negated objects is different; this is what is responsible for the different rates of change in the change from OV to VO.

A long-standing debate: three analyses

- I. Basic OV with optional rightward movement (van Kemenade, 1987; Koopman, 1990; Lightfoot, 1991; Stockwell & Minkova, 1991)
- II. The Double Base Hypothesis; basic OV and basic VO, with rightward and leftward movement whenever relevant (Pintzuk, 1999; Pintzuk, 2005; Taylor & Pintzuk, 2012a, 2012b)
- III. Basic VO analysis with optional leftward movement (Fischer et. al, 2000; Biberauer & Roberts, 2005, 2006)

2 (movement) possibilities



If either one of these scenarios is true and if we assume that there is a factor which triggers movement, we can make the following predictions:

- a. A homogeneous set of OV objects (i.e. objects that are triggered)
- b. A homogeneous set of VO objects (i.e. objects that are triggered)

→ Information Structure (for referential objects)

Materials & Method

- OE: York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE) (Taylor et al. 2003)
 - Selection of texts from the O2 and O23 period (850-1050)
- eME: Penn-Helsinki Parsed Corpus of Middle English, 2nd edition (PPCME2) (Kroch & Taylor 2000)
 - Selection of texts from the M1 period (1150 – 1250)
- Non-translated texts; Cichosz et al., (2017) show that the Latin original text influences OV/VO behaviour. More especially, quantified and negated objects (cf. Gianollo 2016 on preverbal negative in Late Latin).
- Subclauses with a finite verb, a non-finite verb and a direct object
- Annotated for information structure (using a simplified version of the Pentaset (Komen 2013))

IS annotation

Given

- (1) Þæt anlipige **Godes tempel** wæs wundorlice gecræft. þurh gastlicum gerynum; Daid se mæra cyning hæfde gemynt þæt he wolde **þæt tempel** aræran ðam ælmihtigan Gode to wurdmynte.

‘that single temple of God was wondrously contrived through ghostly mysteries. David, the great king, had designed that he would rear that temple to the honour of the almighty God.’

[+ACHom_II,_45:335.10.7522-23]

- (2) We magan ongytan þæt he forþon us gesette þæt we hine biddan sceoldan, þy **we** sceolan þonne eac, in þa tid þæs gebedes, **ure heortan** geclænsian from oþrum gepohtum.

‘We may perceive that he has formed us that we should pray to him, so we must during our time of prayer cleanse our hearts from wayward desires.’

[HomS_8_[BIHom_2]:21106.266]

- (3) þæt se awergda gast ongan **Godes bec** trahtian

‘.... that the accursed spirit began to expound God’s books’

[HomS_10_[BIHom_3]:29.59.398]

IS annotation

New

- (4) Nu segð se wyrdwritere þæt seo wicce sceolde aræran þa of deape **þone Drihtnes witegan Samuhel gehaten, haliges lifes mann,**

'... now says the historian that the witch should then raise from the dead the Lord's prophet, named Samuel, a man of holy life.'

[+AHom_30:45.4103]

- (5) ... cwæð ðæt he wolde genealæcan **his hulce** gif he mihte.

'... [the leper] said that he wished to reach his hut, if he could'

[+ACHom_I,_23:369.136.4634]

A (re)examination of OE OV/VO variation

Struik & van Kemenade (in press):

	AUXOV	AUXVO	OAUXV	OVAUX	VAUXO	TOTAL
GIVEN	293 (97.7%)	125 (51.0%)	42 (97.7%)	143 (98.0%)	23 (67.7%)	626
NEW	7 (2.3%)	120 (49.0%)	1 (2.3%)	3 (2.1%)	11 (32.4%)	142
TOTAL	300	247	43	146	34	768

- OV word order is reserved for given objects; there are virtually no new preverbal objects
- VO word order is a mix of given and new objects

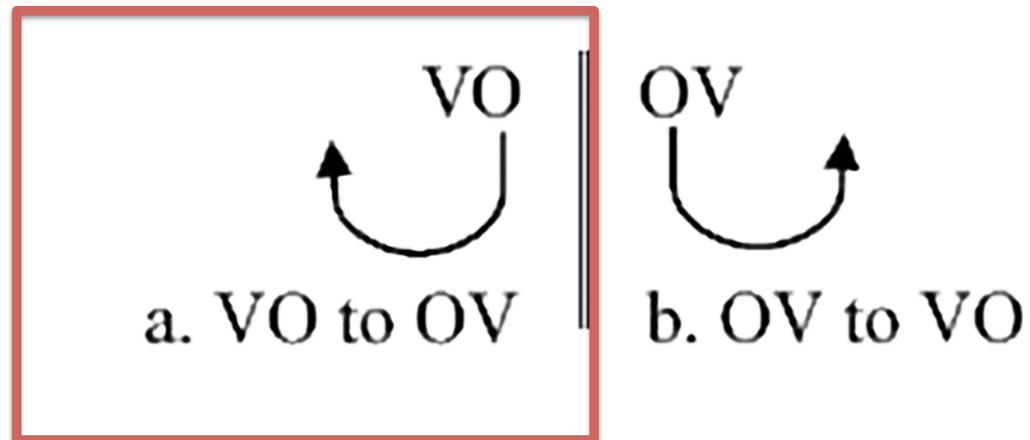
A (re)examination of eME OV/VO variation

	AUXOV	AUXVO	OAUXV	OVAUX	VAUXO	TOTAL
GIVEN	96 (100%)	100 (64.9%)	9 (100%)	4 (100%)	5 (62.5%)	214
NEW	0 (0%)	54 (35.1%)	0 (0%)	0 (0%)	3 (37.5%)	57
TOTAL	96	154	9	4	8	271

- VAux orders have largely disappeared
- OV orders have been reduced
- What OV that is left is reserved for given objects (confirming the data of Elenbaas & van Kemenade 2014)

From OE to eME

- Stripping the data of structural assumptions leads to new insights in the nature of OV/VO variation and the change to a strict VO language
- OV is reserved for given objects, and for quantified and negated objects
- There is a stepwise decline in the number of OV objects, but the trigger remains the same
- The VO orders are mixed in terms of IS (also when leaving aside the effect of weight)



Quantified and negated objects

The position of quantified and negated has been assumed, from a Double Base perspective, to be different (Pintzuk & Taylor 2004, 2006), but these objects occur in exactly the same positions as referential objects:

Quantified and negated objects

(6) a. AuxOV

for þan ðe he sceolde ærest **menine mann** mid his micclum wisdome Gode *gestrynan*
'for he had first to gain many a man to God by his great wisdom'

+ACHom_I,_27:403.94.5322

b. AuxVO

swa þæt eall þæt folc mihte *geseon* swyðe **mycel fyr** ofer ealne þone munt mid egeslicum lige,
'such that all the people could see a lot of fire over all the hill with awful flames'

+AHom_21:27.3091

c. OAuxV

and þu **mycelne wurdmynt** miht swa *begitan*.
'and thou mayest so obtain great honour'

+ALS_[George]:120.3145

d. OVAux

þæt hi **ealle eordlice ðing** sæmninga *forlætan* magon
'that they must suddenly leave all earthly things'

+ACHom_II,_29:232.78.5167

e. VAuxO

for ðan ðe he *habban* wile **micel werod** mid him
'because he wants to have many men with him'

+AHom_11:545.1770

Quantified and negated objects

- The position of quantified and negated has been assumed', from a Double Base perspective to be different (Pintzuk & Taylor 2004, 2006), but these objects occur in exactly the same positions as referential objects:
- Once a scenario in which OV is derived from VO has been established, we can extend this to quantified and negated objects

Quantified and negated objects in OE

	AUXOV	AUXVO	OAUXV	OVAUX	VAUXO	TOTAL
QUANTNP	46 (44.7%)	27 (26.2%)	6 (5.83%)	19 (18.45%)	5 (4.9%)	103
NEGP	12 (38.7%)	7 (22.6%)	2 (6.45%)	9 (29.03%)	1 (3.2%)	31
TOTAL	58 (43.3%)	34 (25.4%)	8 (6.0%)	28 (20.9%)	6 (4.5%)	134
REF	300 (39.1%)	247 (32.2%)	43 (5.6%)	146 (19.0%)	34 (4.2%)	768

- The distribution of quantified and negated objects closely parallels that of referential objects
- The number of AuxVO is higher with referential objects, but this is because new objects are allowed only in postverbal position

Quantified and negated objects in eME

	AUXOV	AUXVO	OAUXV	OVAUX	VAUXO	TOTAL
QUANTNP	22 (33.8%)	36 (55.4%)	5 (7.7%)	1 (1.5%)	1 (1.5%)	65
NEGP	3 (30.0%)	6 (60.0%)	0 (0%)	0 (0%)	1 (10.0%)	10
TOTAL	25 (33.3%)	42 (56.0%)	5 (6.7%)	1 (1.3%)	2 (2.7%)	75
REF	96 (35.2%)	154 (56.8%)	9 (3.3%)	4 (1.5%)	8 (3%)	271

- The distribution of quantified and negated objects closely parallels that of referential objects
- The number of AuxVO is higher with referential objects, but this is because new objects are allowed only in postverbal position

Quantified and negated objects

- The distribution of quantified and negated objects does not differ from the distribution of referential objects.
- Conclusion: a scenario in which OV is derived from VO is to be preferred for referential objects as well as quantified and negated objects.

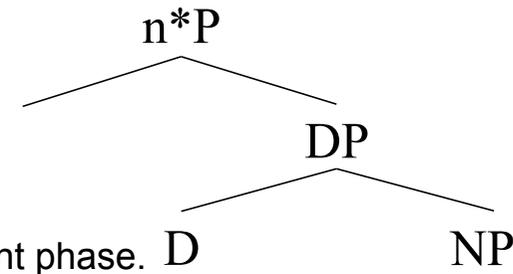
Fit the data to the theory

- Our data analysis highlights three elements that a syntactic theory needs to account for:
 - OV order as the result of givenness
 - OV order as the result of quantification/negation
 - The step-wise change from OV to VO from OE and eME, starting with VAux clauses

- We show that a phase-based analysis of OE/eME word order derivations (building on Biberauer and Roberts (2005, 2006 et seq.) can derive all word orders in a unified way

What triggers movement?

- Aboh (2010: 14): A numeration N pre-determines the Information Structure of a linguistic expression
- This predetermination comes in the form of an extra feature-layer on the object (cf. also Biberauer & van Kemenade 2011)
- This means that there is an extra feature that needs to be checked/valued before the derivation can converge
- This leads to an unbalanced phase (in the sense of Müller 2011); we are left with a feature that cannot be checked/valued in the current phase.
- We need something like an Edge Feature to complete the phase, which attracts the DP (which can have interpretive consequences) and which makes the feature visible to higher phases.



Edge Features

- Edge Feature Condition (EFC) (cf. Chomsky 2005):
The head X of phase XP may be assigned an edge feature after the phase XP is otherwise complete, but only if that has an effect on outcome.
- Müller (2011)
Edge Feature Condition (EFC, new version)(Müller 2011):
An edge feature [$\bullet X \bullet$] can be assigned to the head γ of a phase only if (a), (b), and (c) hold:
 - a. The phase headed by γ is not otherwise balanced.
 - b. γ has not yet discharged all its structure-building or probe features.
 - c. [$\bullet X \bullet$] ends up on top of γ 's list of structure-building features.

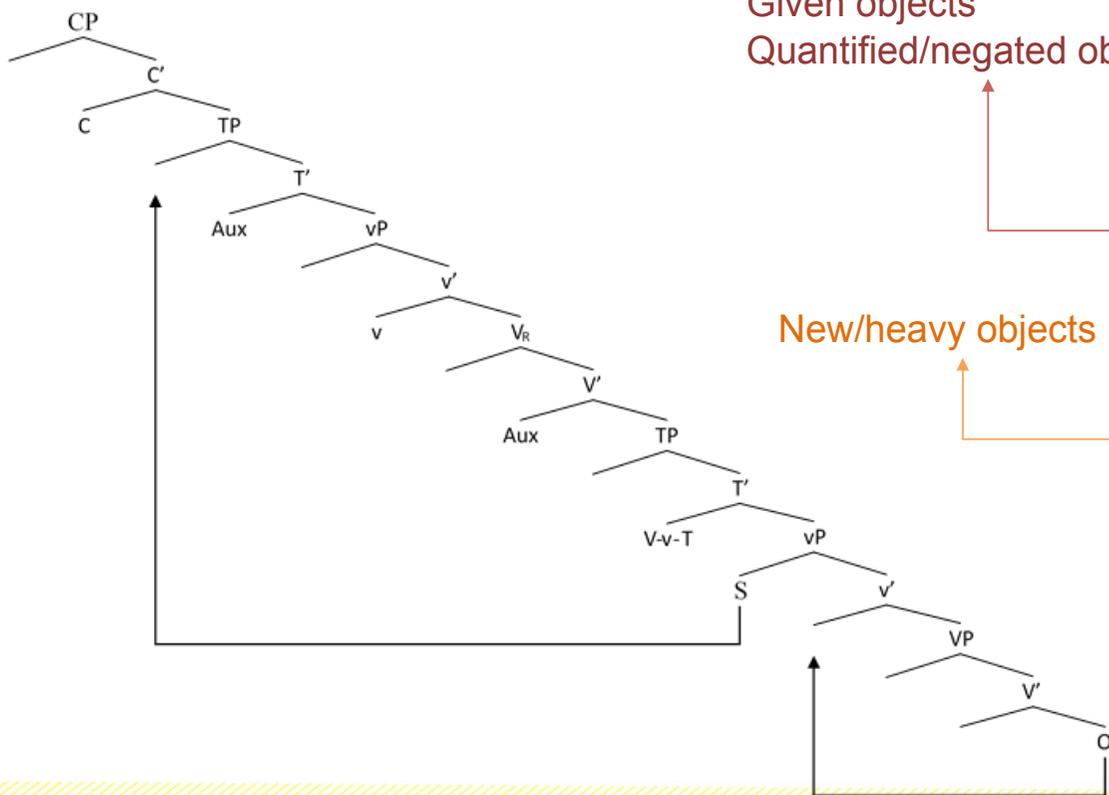
→ Spec, v is the place where interaction with PF and LF interfaces takes place and we assume that this is the location where IS is formally encoded (i.e. Chomsky (2005)'s D-effect; cf. López 2009 for a similar proposal)

→ This gives the object the opportunity to check its features in a higher phase; the phase edge thus serves as an escape hatch; this is especially relevant for quantifiers, negated objects, and pronouns

Quantified and negated objects

- We follow Christensen (2004)'s analysis of derivation of quantifiers by phase, assuming a [uQuant/Neg] feature on T (following the general assumption of QR as adjunction to IP in standard GB analysis).
- The quantified and negated objects have an extra feature layer marking them [Quant/Neg].
- The [uQuant/Neg] feature will not be able to see [Quant/Neg], as it is in the lower vP phase, which has already been sent to spell-out. The [Quant/Neg] object will thus have to make itself visible at the vP edge.
- The derivation will thus insert an Edge Feature, which allows movement to spec,v.

AuxVO: derived



Given objects
Quantified/negated objects

- Obligatory V-to-v-to-T movement

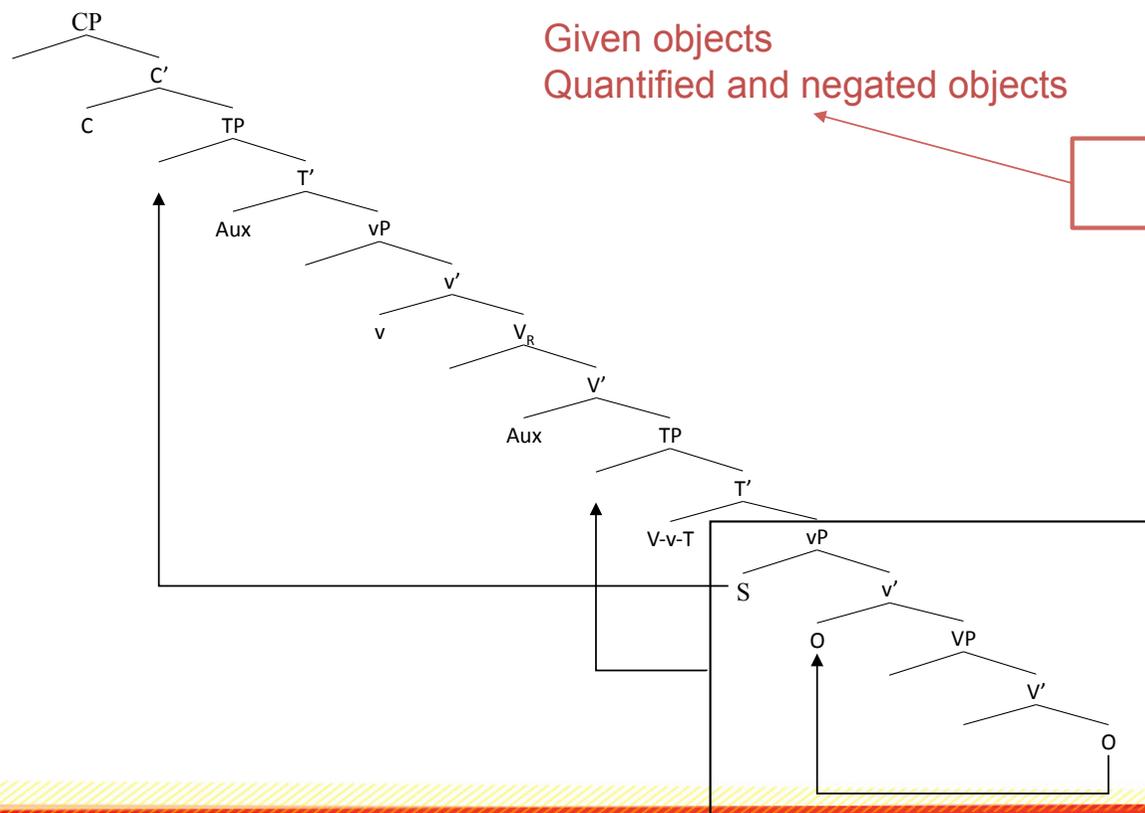
- Object has three options
 - It pied-pipes the VP to spec,v
 - It moves to Spec,v by itself

New/heavy objects

- It stays in its basic position and is sent to spell-out once vP is completed (as the result of PIC)

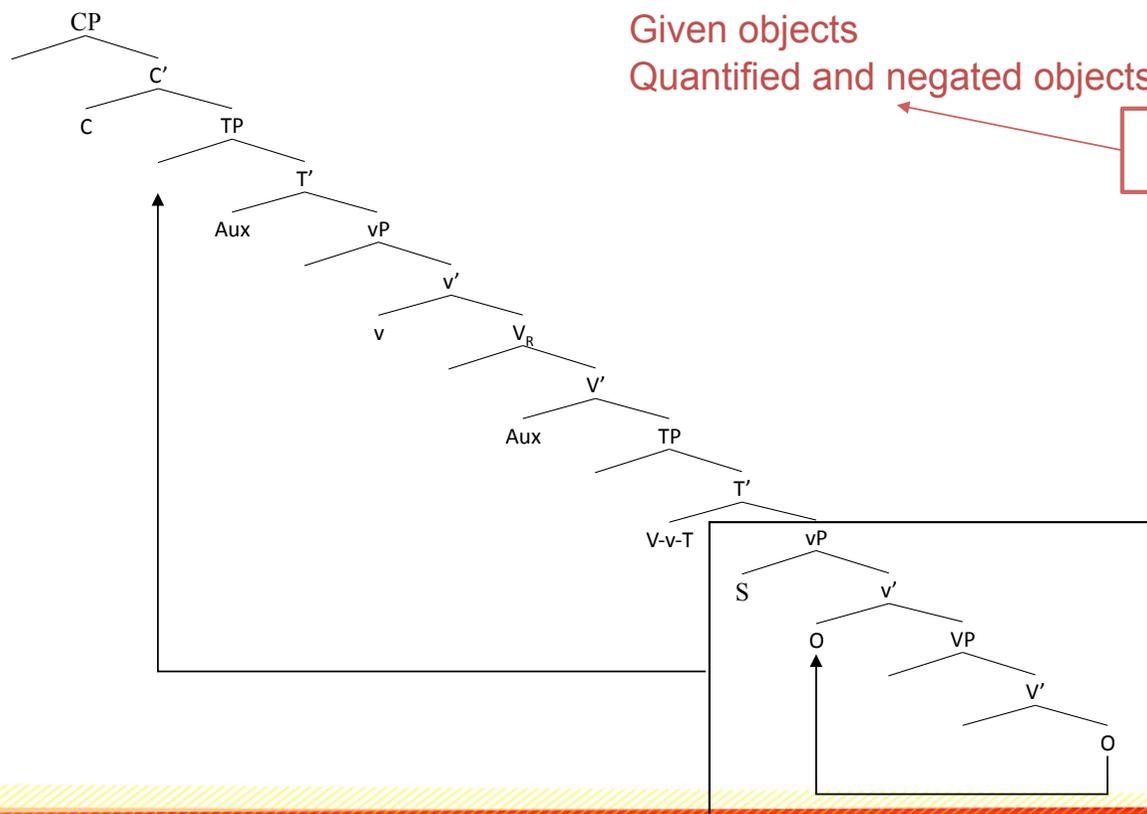
- The subject moves to the higher cycle (see Biberauer & van Kemenade (2011)) for a similar IS-driven account of subject positions)

AuxOV



- Obligatory V-to-v-to-T movement
- Object moves/pied-pipes to Spec,v
- No new objects because of the Phase Impenetrability Condition:
 - Once a phase is completed, material inside it becomes inaccessible for further syntactic operations. Only materials in the edge are available*
- If the object were to stay in the VP, it would be spelled out with VO as a result.

OAuxV

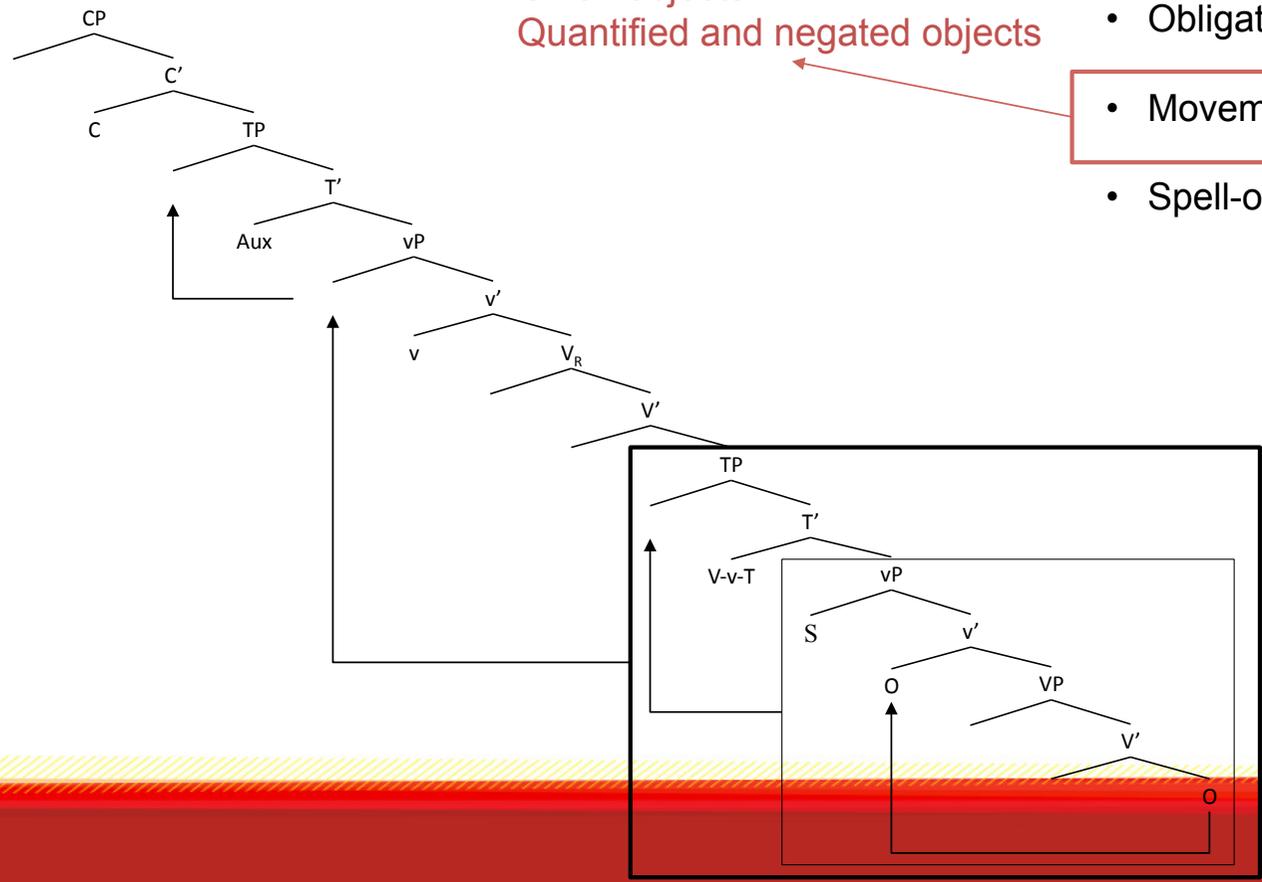


Given objects
Quantified and negated objects

- Obligatory V-to-v-to-V movement
- Movement of O to spec,v
- No movement of new objects
- vP is pied-piped to the higher clause as a result of features of S



OVAux + VAuxO



Given objects
Quantified and negated objects

- Obligatory V-to-v-to-T movement
- Movement of O to spec,v

- Spell-out of O in VP leads to VAuxO



A note on diachrony

There is step-wise disappearance of object checking

- a. Loss of pied-piping to value v's features; this was restricted to DP-movement with referential objects (including pronouns); pronouns can still move to higher positions
- b. Referential objects lose their extra feature layer (presumably as a result of the grammaticalization of the determiner); loss of DP-movement and loss of high object pronouns.
Retention of an Edge Features with quantified/negated objects
- c. Movement of quantified and negated objects becomes covert

A sketch of further changes (cf. Biberauer & Roberts 2008: 27); subject to further research

- d. Loss of pied-piping to value T's features
- e. (Matrix) C loses feature triggering T-movement
- f. Modal features of T realised by Merge
- g. v loses feature triggering V-movement
- h. T loses obligatory feature triggering v-movement

Conclusion

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Unified syntactic analysis

- Phase-based approach → all preverbal objects are the result of movement to spec,v
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- The feature layer for quantified and negated objects is different; this is what is responsible for the different rates of change in the change from OV to VO.

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