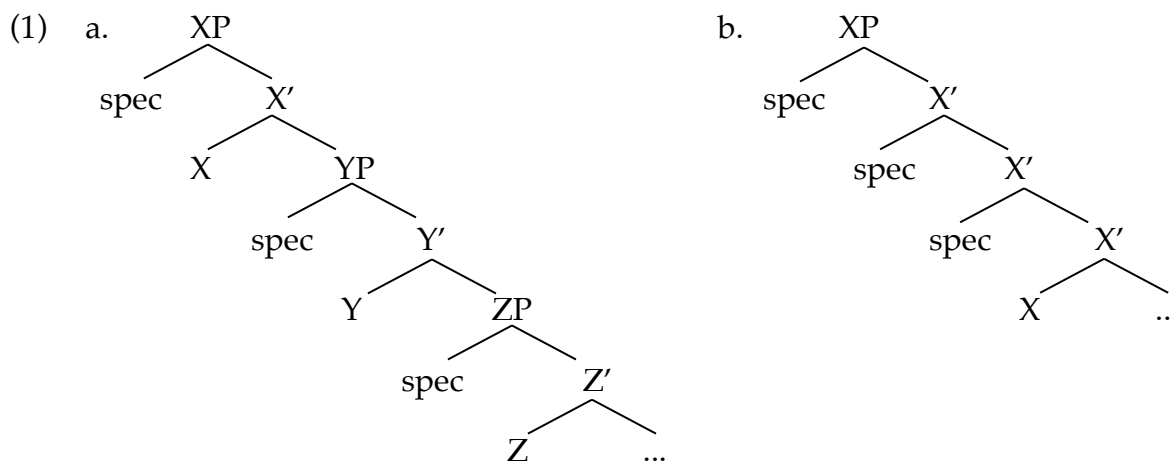


# V2/V3 in Old High German: multiple projections vs. multiple specifiers

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## 1 Introduction

- Cartographic approach (cf. e.g. Rizzi 1997, Cinque 1999): (i) (ideally) one-to-one relation between functional heads and morphosyntactic/semantic/pragmatic features; (ii) each head licenses only a single specifier (Kayne 1994); outcome: massive growth of the number of functional projections.
- Alternative analysis (in many cases): (i) single functional head + multiple specifiers (cf. Chomsky 1995, 2000, Richards 2001, Bobaljik 1999, and most recently Lahne 2007); (ii) one-to-many relation between functional heads and features; (iii) features of a single head are hierarchally ordered to account for ordering effects (see Richards 2001, Grewendorf & Sabel 1999, Grewendorf 2002, and Lahne 2007).



- Note: Overt head positions (hosting e.g. verbs or complementizers) are the only clear-cut evidence for additional functional projections.
- This paper: Analysis of multiple fronting/V3 in (early) OHG in terms of multiple specifiers of C.

## 2 Background: Matrix V1/V2/V3 in OHG

- Well-known fact: Early OHG is more V2ish than other early Germanic languages such as Old English or Gothic (Lippert 1974, Robinson 1997, Dittmer & Dittmer 1998, Axel 2007):
  - (i) systematic verb fronting (see Dittmer & Dittmer 1998, Petrova & Solf 2007 on the OHG *Tatian*; Axel 2007);
  - (ii) fronting of indefinites/adjuncts suggests grammaticalization of semantically/pragmatically neutral XP-fronting (Axel 2007: EPP-feature in C):

- (2) a. [Neoman] **niuuirdit** fona gote festi [...]  
 nobody NEG-becomes by God strengthened  
 Lt. *Nemo erit a deo nisi firmus* [...]  
 'Nobody will become strengthened by God [...]'  
 (Monsee Fragments, XL,19; St. Augustini sermo; Axel 2007: 120)
- b. [Neo] **nist** zi chilaubanne dhazs fona dhemu salomone  
 never NEG-is to believe that of the Salomon  
 sii dhiz chiforabodot  
 is this prophesied  
 Lt. *Numquid de illo salomone creditur prophetatum? minime*  
 'It can never be believed that this was prophesied by Salomon.'  
 (Isidor, 638; Axel 2007: 120)
- c. endi [chiiuissio] **ist** christus in dheru selbun salbidhu chimeinit  
 and certainly is Christ in that same salve meant  
 Lt. *et utique christus ipsa unctione monstratur*  
 'And certainly is Christ meant in that same salve.'  
 (Isidor, 144; Axel 2007: 120)

- Deviations from V2: (i) V1 declaratives; (ii) V3 orders.

- (3) **uuarun** thô hirta In thero lantskeffi uuahante [...]  
 were then/there shepherds in that country abiding  
 Lt. *Et pastores erant In regione eadem. uigilantes* [...]  
 'And there were shepherds in that country abiding [...]'  
 (Tatian, 85,29; Axel 2007: 113)

- Topics may intervene between clausal particles and the finite verb:

- (4) Inu ni [angil] **nist** anaebanchiliih gote?  
 INU NEG angel-NOM NEG-is identical God-DAT  
 Lt. *Num angelus equalem cum deo habet imaginem?*  
 'Is an angel not identical to God?'  
 (Isidor 184; Axel 2007: 206)

- Topics may occur to the left of fronted *wh*-phrases:

- (5) a. [ir uuarlichio]/ uuen mih **quedet** uuesen/  
 you-NOM in-fact who me-ACC say be  
 Lt. */[...] uos autem / quem me esse dicitis/*  
 'But you in fact, who do you say who I am?'  
 (Tatian, 299,32; Axel 2007: 209)
- b. [Uuexsal dhes nemin] huuazs **bauhnida?**  
 changing-NOM of-the name what meant  
 Lt. *Mutatio nominis quid significabat?*  
 'The changing of the name, what did it mean?'  
 (Isidor, 532; Axel 2007: 209)

- Multiple topics/multiple XP-fronting (most frequent in the OHG *Isidor*, cf. Robinson 1997, Axel 2007):

- (6) a. [Dhea uuehhun] [aur] [in heilegim quhidim] **arfullant** sibun iaar.  
the weeks however in sacred language fulfil seven years  
Lt. *Ebdomada namque in sacris eloquiis septem annis terminatur.*  
'The weeks, however, take seven years in sacred language.'  
(Isidor, 457; Robinson 1997: 26)
- b. [So] [auh in andreru stedi] [dhurah dhen selbun heilegun forasagun]  
so also in other places through the same holy prophet  
**uuard** dhera dhrinissa bauhunc sus araughit: [...]  
became the-GEN Trinitiy-GEN meaning in this way demonstrated  
Lt. *Item alibi per eundem prophetam trinitatis sic demonstratur significantia: [...]*  
'In this way, also elsewhere the meaning of the Trinity was demonstrated by  
the same holy prophet: [...]'  
(Isidor, 328; Robinson 1997: 27)
- V3 with pronouns (see Fourquet 1938, Lippert 1974, Eythórsson 1995, Tomaselli 1995, Robinson 1997, and Axel 2007):
- (7) a. [Erino portun] *ih* **firchnissu**, iisnine grindila firbrihu  
bronze portals I destroy-1SG iron locks break-1SG  
endi [dhiu chiborgonun hort] *dhir* **ghibu**  
and the hidden treasures you give-1SG  
Lt. *Portas aereas conteram et uectes ferreos confringam et dabo tibi thesauros absconditos*  
'I destroy bronze portals, break iron locks and give you the hidden  
treasures.'  
(Isidor, 157; Robinson 1997: 17)
- b. [Dhes martyruna endi dodh] *uuir* **findemes** mit urchundin  
of-his martyrdom and death we prove with testimony  
dhes heilegin chiscribes  
of-the holy scripture  
Lt. *Cuius passionem et mortem in suo loco scripturarum testimoniis  
adprobabimus*  
(Isidor, 516; Robinson 1997: 17)
- c. [Fona hreue] [aer lucifere] *ih* *dhih* **chibar**  
from womb before Lucifer I you-ACC bore  
Lt. *Ex utero ante luciferum genui te*  
'I bore you out of the womb before Lucifer.'  
(Isidor, 409; Robinson 1997: 17)
- V3 with pronouns soon disappeared in the course of OHG. In the *Tatian* (around 850), the order XP-pron.-V<sub>fin</sub> is already much less frequent (cf. Dittmer & Dittmer 1998); the pattern is very rare in late OHG records (cf. Axel 2007).<sup>1</sup>

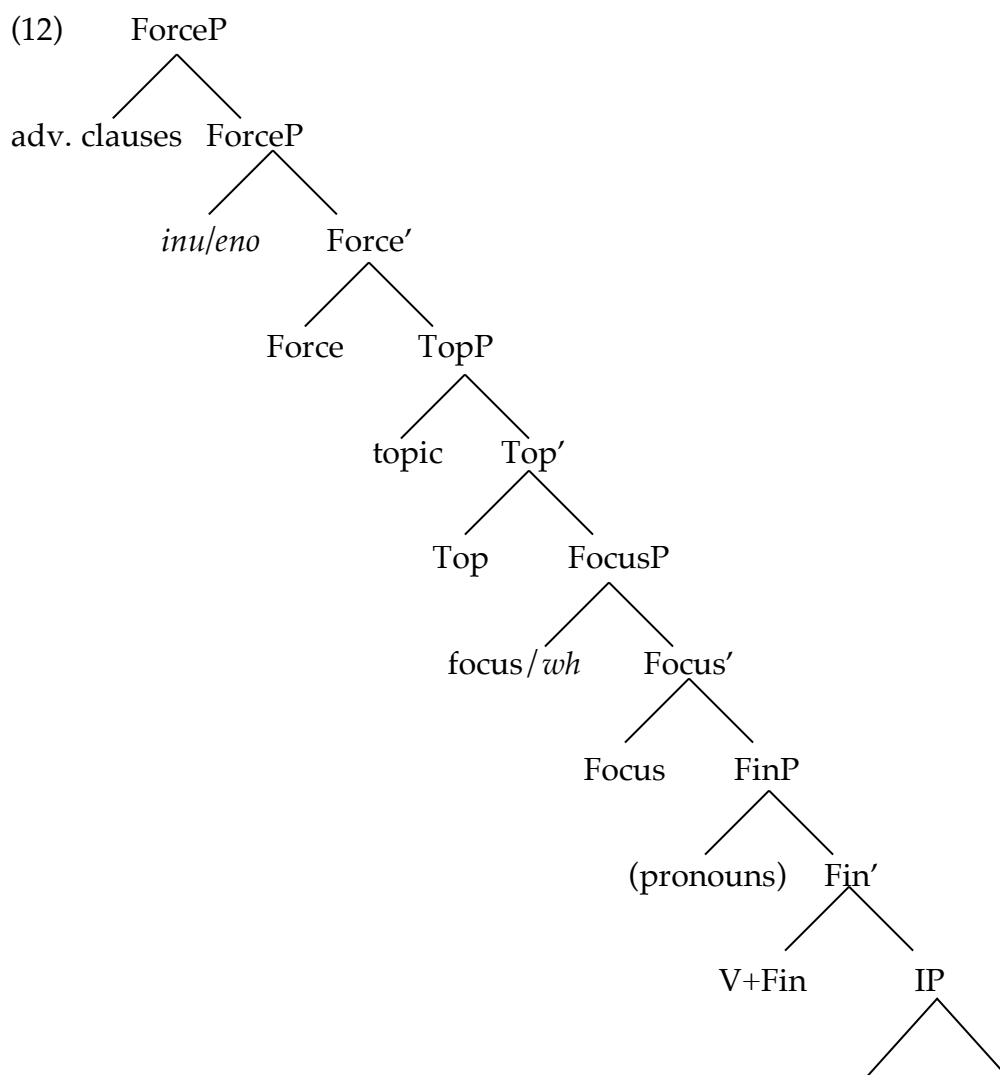
<sup>1</sup> Fuß (2008) argues that it is questionable whether early OHG exhibits a designated structural position for pronouns in the left clausal periphery. First, we can observe inversion with pronouns in the earliest records available (in contrast to OE). Second, in the majority of relevant V3 orders, the finite verb appears in absolute clause-final position (17 examples, according to Eythórsson 1995: 327), as in (7a, c). **Possible conclusions:** (i) The order XP-pron.-V<sub>fin</sub> is to be analyzed in terms of matrix SOV order, a residue of an earlier (Pan-Germanic) grammatical system (Lenerz 1984); (ii) the pattern XP-pron.-V<sub>fin</sub> was triggered for (archaic) metrical reasons (Behaghel 1932, Eythórsson 1995) "to avoid an unstressed element in absolute clause-final position." (Eythórsson 1995: 327f.). Under these assumptions, orders such as (7b), in which another XP appears to the right of the finite verb, can be attributed to extraposition/exbraciation of material to the right edge of the clause. See Axel (2007), Fuß (2008) for discussion.

- Adverbial clauses always occur at the outermost left edge of the clause:
    - (i) To the left of the interrogative particle *inu/eno* in main clauses, cf. (8);
    - (ii) To the left of the complementizer in embedded clauses, cf. (9):
- (8)   /[ thanne ih iuuuih santa/ uzzan seckil] /[...]/ eno uuas  
           when I you sent without bag PRT was  
           iu iouuiht thes uuan  
           you anything of-that need  
           Lt. */quando misi uos / sine saccolo / [...]/ numquid aliquid defuit uobis*  
           ‘When I sent you without a bag [...], did you lack anything?’  
           (*Tatian*, 575,1; Axel 2007: 210)
- (9)   [...] neist tés nîomannen vuúnder. [[ sô der uuínt uuáhet]  
           neg-is that-gen nobody-acc wonder when the wind blows  
           táz tiu uuélla án den stád sláhet]  
           that the wave at the shore crashes  
           Lt. *Nemo miratur flamina chori. túndere litus frementi fluto*  
           ‘Nobody is surprised that the wave crashes at the shore when the wind is  
           blowing.’  
           (Notker BCon IV 211,2; Axel 2007: 230)
- Axel (2007: 210) formulates the following set of generalizations concerning possible orderings in the left periphery of OHG main clauses:
- (10) a. adverbial clause > *inu/eno* > disloc. topic > *wh* > (pron.) >  $V_{fin}$  ... (interrogatives)  
        b. adverbial clause > disloc. topic > XP > (pron.) >  $V_{fin}$  ... (declaratives)

### 3 Multiple projections: Axel (2007)

- Axel (2007): fronted XP and finite verb do not enter into a spec-head relation in early OHG; verb movement targets a low head in the C-domain (Fin), while XPs can be fronted to a number of specifiers in a split CP:
- (11) [<sub>CP</sub> XP<sub>i</sub> [<sub>C</sub> C [<sub>FinP</sub> ... [<sub>Fin'</sub> V<sub>j</sub>+Fin [ ... t<sub>i</sub> ... t<sub>j</sub> ]]]]
- That opens up the possibility that further material intervenes between fronted XP and finite verb, giving rise to V3 orders.
  - More fine-grained structure proposed by Axel:<sup>2</sup>

<sup>2</sup> Axel (2007: 234) notes that “In the OHG sources there is no evidence that topics and *wh*-phrases occupied different positions.” However, this claim is at odds with the word order generalizations she proposes on page 210 (my (10)), where (dislocated) topics appear to the right of *inu/eno* and to the left of *wh*-phrases. In particular, in contrast to what seems to be implied by Axel on page 234, dislocated topics cannot be analyzed in terms of adjunction to the root node, since they should otherwise appear to the left of the interrogative particle. Accordingly, I opted for the structure in (12) with different positions for topics and foci, even if that slightly misrepresents Axel’s original proposals.



- Movement to Spec positions triggered by:
  - (i) semantic/pragmatic factors such as topic, focus, *wh*
  - (ii) a semantically vacuous EPP-feature (fronting of indefinites)
- Special position for (subject) pronouns (SpecFinP).
- Special status of adverbial clauses: adjuncts to ForceP (an archaic trait of Proto-Germanic/Indo-European).
- Loss of V3: At some point, the formerly split CP was conflated into a structure with only two positions in the CP:

(13)  $[_{FinP} XP_i [_{Fin'} V_j + Fin [ \dots t_i \dots t_j ] ]]$

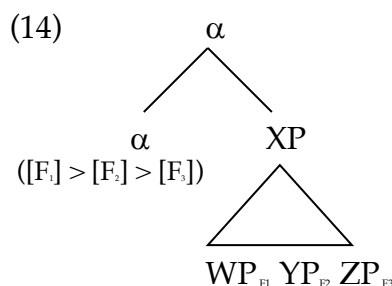
### 3.1 Discussion

- Open questions:
  - (i) Conceptual: adjunction of adverbial clauses is incompatible with idea of a split CP structure;
  - (ii) no clear evidence for more than a single head position in the C-domain of OHG;
  - (iii) unclear: reasons for conflation of the formerly split CP in the course of OHG.

- Ad (i): Cartographic approaches (e.g., Rizzi 1997, Cinque 1999) usually allow only a single specifier per projection, ruling out adjunction to phrasal categories (basically following Kayne 1994).<sup>3</sup>
- Ad (ii): In OHG, complementizers uniformly occupy a (single) head position directly above IP/TP; there is no clear evidence for further projecting heads in the left periphery of the clause.<sup>4</sup>
- Ad (iii): To account for the development of a rigid V2 syntax, it must be assumed (a) that either the previously split CP has been conflated into a simplex CP or (b) that modern Germanic V2 languages still have a split CP, but have developed some special restrictions that rule out multiple XP fronting (for concrete proposals cf. e.g. Grewendorf 2002, Frey 2004, 2006; see Fanselow 2002, 2004, 2006 for some discussion).
- Problems: (a) Trigger of conflation process remains unclear (but see Axel 2007 for some speculations); (b) it is not clear how restrictions ruling out V3 orders in a split CP may have evolved historically. Most of the relevant proposals for present-day German involve some sort of hard-wired locality restriction in the spirit of Relativized Minimality or the Minimal Link Condition (see Grewendorf 2002, Fanselow 2002, 2004, Frey 2006).

#### 4 An alternative analysis: multiple specifiers

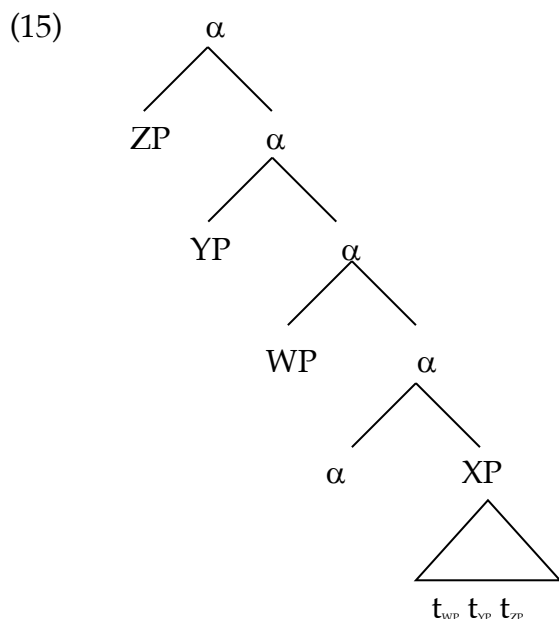
- Proposal: The C-domain of OHG is made up by only a single functional head (C), which may project multiple specifiers hosting fronted XPs, or particles directly merged in the left clausal periphery.<sup>5</sup>
- Features in C are hierarchically ordered (cf. e.g. Grewendorf & Sabel 1999, Lahne 2007), ensuring that they must be checked off in a certain order.
- Higher specifiers correspond to features lower in the hierarchy: If a functional head  $\alpha$  comes with the feature hierarchy  $[F_1] > [F_2] > \dots > [F_n]$ ,  $[F_1]$  first triggers an operation creating the closest specifier of  $\alpha$ . Subsequently,  $[F_2]$  triggers an operation creating an outer specifier etc.:



<sup>3</sup> Note that if multiple specifiers or XP-adjunction were allowed in the cartographic approach, most arguments put forward by Rizzi (1997) in support of a split CP would not go through. Furthermore, assuming both multiple projections and multiple specifiers/adjunction positions would give rise to an inflated theory of phrase structure that combines otherwise complementary theoretical assumptions, see e.g. Lahne (2007) for some discussion.

<sup>4</sup> See Axel (2007) for arguments that affirmative *jā*, interrogative *inu/eno*, and the narrative marker *thō* occupy specifier positions in the C-domain.

<sup>5</sup> See Lahne (2007) for a number of conceptual advantages of an approach to the left clausal periphery in terms of multiple specifiers.



- In more formal terms, this can be expressed by the following condition (Lahne 2007: 10):

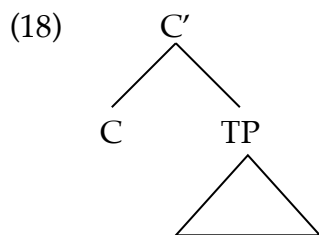
(16) *Condition on hierarchy-driven derivation*

- A feature [F] of a head  $\alpha$  is to be satisfied at a point P of the derivation iff (i) and (ii):
  - $\alpha$  is the active head.
  - [F] is the active feature.
- Active head**  
A head is active at a point P of the derivation iff it is a probe at P.
- Active feature**  
A feature is active at a point P of the derivation iff it is the highest unsatisfied (unchecked/unvalued) feature in the feature hierarchy of an active head at P.

- At any point during the syntactic derivation, syntactic operations may only be triggered by the active feature of an active head.
- Notational convention: Features assigned a diacritic \* \_\* require overt movement/PF realization (cf. Roberts and Roussou 2003, Sternefeld 2007).
- The ordering restrictions that determine the make-up of the left periphery of OHG can then be derived as follows.

- (17) [Uuexsal dhes nemin] huuazs **bauhnida**?  
 changing-NOM of-the name what meant  
 Lt. *Mutatio nominis quid significabat?*  
 'The changing of the name, what did it mean?'  
 (Isidor, 532; Axel 2007: 209)

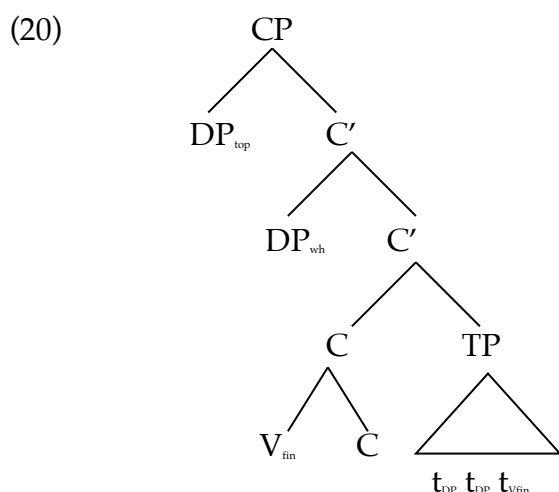
- Merge of C with TP creates the structure in (18):



- Derivation of (17): C hosts the features [*\*fin/\_V\**] (which requires attraction of a finite element of the category V, cf. Lahne 2007), [*\*wh\**], and [*\*top\**], ranked according to the following hierarchy:<sup>6</sup>

(19) [*\*fin/\_V\**] > [*\*wh\**] > [*\*top\**]

- C must first attract the finite verb. Subsequently, a *wh*-specifier and a topic specifier are added by recursive applications of Merge:



- XP-fronting in early OHG: triggered by
  - (i) 'strong' (i.e., starred) semantic/pragmatic features, or
  - (ii) a semantically vacuous EPP-feature optionally added to C (leading to generalized V2 effects, Axel 2007).
- Question: How do EPP-features and starred features interact in cases of multiple XP-fronting, i.e., what's the position of the EPP in the feature hierarchy?
- Conceptual consideration: The checking/valuation of purely formal morphosyntactic features is imperative, since if unvalued, these constitute genuine uninterpretable features that cause a derivation to crash at both interfaces (see also fn. 6):

<sup>6</sup> The relevant feature hierarchy for a given functional head is presumably determined by (semantic) conditions holding at the interfaces, in the sense that a 'wrong' hierarchy of specifiers hosting the relevant elements could not be interpreted at the interface to C-I. Furthermore, note that the ranking of semantic/pragmatic features in functional heads represents the reverse of what presumably holds at the interface to C-I, with 'lower' functional features giving rise to higher specifiers (see also Müller 2007). In addition, morphosyntactic features seem to have primacy over 'peripheral' semantic/pragmatic features (i.e., must be satisfied first). This might have to do with the fact that unvalued/unchecked morphosyntactic features lead to a crashing derivation, while unvalued/unchecked semantic/pragmatic features probably merely give rise to deviant interpretations.



(21)  $[\ast\text{fin}/\_V\ast] > [\text{EPP}] > [\ast\text{wh}\ast] > [\ast\text{top}\ast]$

- Observation: Certain elements appear closer to the finite verb, while others occupy outer specifiers of CP:<sup>7</sup>

(22) a. adverbial clause > *inu/eno* > disloc. topic > *wh* >  $V_{\text{fin}}$  ... (interrogatives)  
 b. adverbial clause > disloc. topic >  $\text{XP}/\textit{thô}$  >  $V_{\text{fin}}$  ... (declaratives)

- Observations (declaratives): (i) Preverbal position often occupied by the discourse-continuative marker *thô* 'then'; (ii) *thô* appears directly to the right of the finite verb in V1-declaratives.
- Analysis: *thô* is base-generated in SpecTP and moves to prefinite position if C is endowed with an EPP feature (for reasons of locality,  $C_{[+EPP]}$  attracts the closest (i.e., highest) element of the IP/TP domain, cf. e.g. Fanselow 2004, Frey 2006):<sup>8</sup>

(23) a.  $[V+C_{[-EPP]} [_{\text{TP}} \textit{thô} \dots t_v]] \rightarrow \text{V1 declarative}$   
 b.  $[_{\text{CP}} \textit{thô} [V+C_{[+EPP]} [_{\text{TP}} t_{\textit{thô}} \dots t_v]] \rightarrow \text{V2 declarative}$

- In the absence of *thô*, another XP occupying the highest position in the midfield may be fronted to satisfy C's EPP feature.
- wh-questions: *wh*-phrases systematically appear directly to the left of the finite verb in main clauses (Petrova & Solf 2007):

(24)  $\ast \dots \textit{wh} > \textit{thô} > V_{\text{fin}}$

- Question: Why does EPP-checking by an element such as *thô* not preempt *wh*-movement to the closest specifier of C (if [EPP] is ranked higher than [ $\ast\text{wh}\ast$ ])?
- Possible answer: The distribution of *wh*-phrases can be attributed to the following principle (Chomsky 2001: 15):

(25) Maximize matching effects.

- If there are two elements that may in principle check/value features of C, C will attract only the element that checks/values the greatest subset of features contained in C:  
 (i) Fronting of *wh*-phrases serves to check/value both (i) C's EPP feature and (ii) C's [ $\ast\text{wh}\ast$ ] feature.  
 (ii) Purely EPP-driven fronting merely checks a single feature (EPP).
- Accordingly, C will attract the *wh*-phrase, leaving *thô* in a lower, postfinite position.

<sup>7</sup> Note that the following statements are slightly modified. In contrast to Axel (2007), they do not include a special position for pronouns, but explicitly mention the narrative discourse marker *thô*.

<sup>8</sup> As argued in Trips & Fuß (2008), Fuß (2008), discourse-continuative 'then' (*thô* in OHG) was originally inserted in SpecTP in early Germanic. I assume that in early OHG, the particular meaning of *thô* was still associated with SpecTP, similar to OE (and presumably Gothic). V1 order with postfinite *thô* is then the result of generalized V-to-C movement innovated by the (Western) Continental branch of Germanic (a development which did not take place in OE). Furthermore, the additional innovation of a semantically vacuous EPP feature in C led to V2 orders with prefinite *thô*. Due to the fact that C's EPP feature is not linked to any peripheral semantic/pragmatic feature (such as [top] or [foc]), the original meaning of *thô* linked to SpecTP is preserved after movement to SpecCP.

- *thô* cannot occupy a second/outer specifier: (i) *thô* does not constitute a possible topic/focus and therefore cannot be attracted by features other than the EPP; (ii) the relevant EPP feature has already been eliminated by *wh*-movement.
- This prediction is borne out by the facts: There are apparently no cases where a fronted *wh*-phrase is preceded by a non-topic such as *thô* (cf. Petrova & Solf 2007):

(26) \*... *thô* > *wh* >  $V_{fin}$

- OHG *Isidor*: Multiple fronting of the type XP-XP- $V_{fin}$  is more productive than in other OHG texts (cf. Robinson 1997):

- (27) a. [Dhea uuehhun] [auur] [in heilegim quhidim] **arfullant** sibun iaar.  
           the weeks however in sacred language fulfil seven years  
       Lt. *Ebdomada namque in sacris eloquiis septem annis terminatur.*  
           ‘The weeks, however, take seven years in sacred language.’  
           (*Isidor*, 457; Robinson 1997: 26)
- b. [So] [auh in andreru stedi] [dhurah dhen selbun heilegun forasagun]  
       so also in other places through the same holy prophet  
       **uuard** dhera dhrinissa bauhunc sus araughit: [...]  
       became the-GEN Trinitiy-GEN meaning in this way demonstrated  
       Lt. *Item alibi per eundem prophetam trinitatis sic demonstratur significantia: [...]*  
           ‘In this way, also elsewhere the meaning of the Trinity was demonstrated by  
           the same holy prophet: [...]’  
           (*Isidor*, 328; Robinson 1997: 27)

- In (27a), the fronted XPs have a different information-structural status: (i) *dhea uuehhun* is a topic (which refers back to given information); (ii) *in heilegim quhidim* is most likely a contrastive focus.<sup>9</sup>
- Analysis in a mult-spec setting: slight modification of the feature hierarchy in (21), replacing the feature [*\*wh\**] by the more general feature [*\*foc\**] (see e.g. Sabel 1998 for the idea that *wh*-movement is triggered by a focus feature):

(28) [*\*fin/\_V\**] > [EPP] > [*\*foc\**] > [*\*top\**]

- (27b) most likely involves multiple fronting of topics.
- Analysis: feature hierarchy may include more than a single [*\*top\**] feature each instance of which triggers a separate move operation.<sup>10</sup>

<sup>9</sup> Compare the relevant passage from the OHG *Isidor*:

Chiuuissu nu, ibu dhea sibunzo uuehhono fona daniheles zide uuerdhant chizelido, buuzssan einigan zuuiiun ist dhanne archennit, dhazs dher allero heilegono heilego druhtin nerrendeo christ iu ist langhe quhoman. Dhea uuehhun auur in heilegim quhidim arfullant sibun iaar.

Lt. *Quę scilicet LXX ebdomadę, si a tempore danielis numerentur, procul dubio sanctus sanctorum dominus iesus christus olim uenisse cognoscitur. Ebdomada namque in sacris eloquiis septem annis terminatur.*

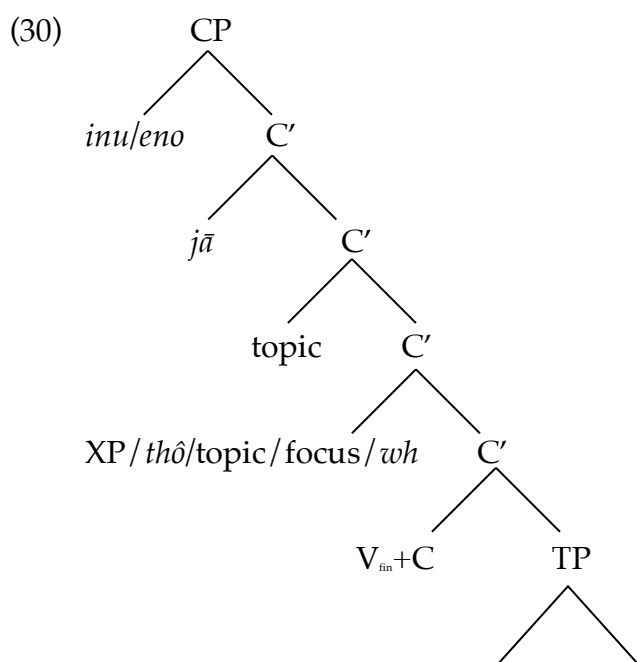
‘Certainly now, if the 70 weeks are counted from Daniel’s time on, it is without doubt that the holiest of the holy, Christ the Lord has already come. The weeks, however, take seven years in sacred language.’

(*Isidor*, 453-457; TITUS)

<sup>10</sup> Thus, it must be ruled out that *Maximize matching effects* leads to multiple checking of both [*\*top\**] features. This can be achieved either by a uniqueness principle ensuring that a single element can maximally satisfy a single substantial semantic/pragmatic feature, or by a more fine-grained

- Fronted adverbial clauses: countercyclic late Merge, which applies (optionally) to a given syntactic object at the point of Spell-Out/Transfer (Nissenbaum 2000, Chomsky 2004).
- This captures the fact that OHG adverbial clauses (i) can only appear at the leftmost edge of a Spell-Out Domain (ii) are apparently not fully integrated in their matrix clause.
- Clausal particles (*inu/eno* etc.): correspond to two more features linked to the coding of affirmativity and the typing of all kinds of interrogatives:

(29)  $[\ast\text{fin}/\_V\ast] > [\text{EPP}] > [\ast\text{foc}\ast] > [\ast\text{top}\ast]/[\text{top}] > [\ast\text{affirm}\ast] > [\ast\text{interrog}\ast]$



- Multiple projections vs. multiple specifiers – major differences:
  - (i) absence/presence of multiple head positions in the left periphery;
  - (ii) nature of the specifier closest to the position of the finite verb:
    - (a) SpecFinP in a multiple projections analysis (reserved for pronouns and non-topic/non-focus elements attracted by C's EPP feature, cf. Axel 2007);
    - (b) multi-purpose position in a structure like (30); content is determined by various factors including:
      - (i) the feature hierarchy in (29),
      - (ii) the actual feature content of C in each individual sentence;
      - (iii) the interaction between C's EPP feature and other substantial semantic/pragmatic features in terms of *Maximize matching effects*.
- The multi-purpose character of this position carries over to present-day German (cf. e.g. Fanselow 2004, 2006), the only difference being that in present-day German, C has apparently lost its ability to project more than a single specifier.

#### 4.1 The loss of V3-orders and the role of *thô*

- Recall: V2 order was generalized in the course of OHG; late OHG texts exhibit consistent V2 and inversion with fronted non-subjects, cf. Behaghel (1932), Näf (1979), Lenerz (1984), and more recently Schrodtt (2004: 204f.) and Axel (2007: 200f.) (see Petrova & Solf 2007 for V2 in interrogatives).
- Axel (2007): generalized V2 evolved when the previously split CP turned into a simplex CP in the course of OHG.
- Alternative analysis based on structure (30): rise of rigid V2 order results from a simple parametric change, namely the loss of the availability of multiple specifiers in the CP.
- Claim: this change was triggered by two factors:
  - (i) Fossilization: when the original semantic/pragmatic function of XP-fronting became opaque (possibly due to the multi-purpose character of the lowest SpecCP), learners posited a semantically vacuous EPP-feature in C to mimic the relevant patterns (instead of discarding the relevant input data, cf. Simpson 2004).<sup>11</sup> cf. also Givón (1976): Reanalysis as “neutral syntax”!
  - (ii) Reanalysis of clause-initial *thô* as an expletive: Overuse of *thô* as clause-initial element led to a reanalysis in which learners took clause-initial *thô* to be base-generated in SpecCP, discarding the movement operation that accomplished *thô*-fronting in the target grammar:

- (31) a.  $[_{CP} \dots \textit{thô} [_C V_{fin} + C_{[+EPP]} [_{TP} \textit{t}_{thô} T [_{VP} \dots]]]] \rightarrow$   
 b.  $[_{CP} \textit{thô} [_C V_{fin} + C_{[+EPP]} [_{TP} \dots T [_{VP} \dots]]]]$

- Factors that promoted this reanalysis: (i) least effort strategies that favor the least costly derivation in case the input is ambiguous (cf. Roberts and Roussou 2003); (ii) part of a more general change ((partial) loss of discourse-configurationality, rise of SpecTP as a structural subject position, cf. Fuß 2008 for details).
- As a result of (31), *thô* turned into an expletive inserted in SpecCP to satisfy C's EPP-feature.
- The expletive use of clause-initial *da* can still be observed in present-day German dialects, which make only sparse use of the *Vorfeld-es*:

- (32) Do is a *Unglück* bassierd.  
 there is an accident happened  
 'An accident has happened.'  
 (Weiß 1998: 102)

- Question: How did this change affect C's capability of projecting multiple specifiers?
- Claim: Presence of expletives signals to the learner that a functional head may project only a single specifier.
- Expletives in Germanic:

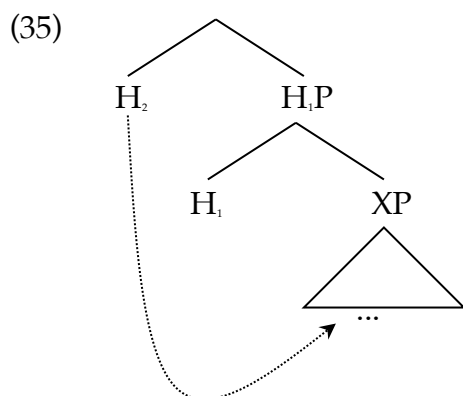
<sup>11</sup> This possibility can be attributed to a mechanism devised by Chomsky (2000) to the effect that semantically vacuous, structure-building EPP features may be optionally added to phase heads, possibly in the course of the syntactic derivation (Chomsky 2000, 2001; cf. Müller 2007 for discussion):  
 (i) The head H of phase Ph may be assigned an EPP-feature (Chomsky 2000: 109)

- (i) subject-type (occurring in SpecTP, as e.g. in English, Scandinavian, and, to some extent, Dutch);
  - (ii) V2-type (occupying SpecCP in all Germanic V2 languages).
  - In both cases, the existence of an expletive correlates with the following facts:
    - (i) The relevant syntactic position must be obligatorily filled in a certain context (e.g., the subject position of tensed clauses in English or the *Vorfeld* of main declaratives in the Germanic V2 languages);
    - (ii) The relevant syntactic position is unique, in the sense that the relevant functional head (T and C, respectively) may not project more than a single specifier (cf. the non-availability of scrambling to pre-subject position in English and Scandinavian, and the absence of V3 effects in V2 languages).
- PROBLEM: DUTCH! (limited scrambling)**

(33) *Generalization: Expletives and multiple specifiers*

A functional head F can project multiple specifiers only if the grammar does not contain an expletive related to F.

- The fact that expletives ‘close off’ the projection of a functional head follows from:
    - (i) strict cyclicity;
    - (ii) the assumption that the expletive itself acts as a probe, initiating an Agree relation with a functional head F after the expletive has been merged as specifier of F (Chomsky 2000, 2004).
  - Strict cyclicity: A lower head  $H_1$  may not any longer trigger syntactic operations after a higher head  $H_2$  has been merged, acting as a probe (Chomsky 2000: 132):
- (34) Properties of the probe/selector  $\alpha$  must be satisfied before new elements of the lexical subarray are accessed to drive further operations.
- In a structure like (35),  $H_1$  is inert after  $H_2$  (which has been subsequently added to the structure) has initiated an Agree operation:<sup>12</sup>



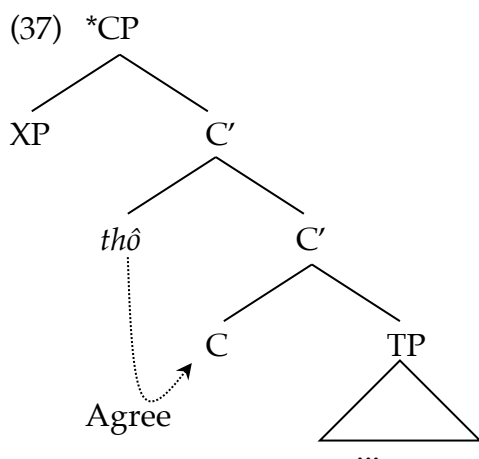
<sup>12</sup> This assumption seems to be implicit in most work on the strict cycle (for related discussion cf. e.g. Chomsky 1995: 234f., Collins 1997: 81ff., and in particular Chomsky 2000: 132f.); it follows more or less directly if phases are equated with phrases as for example in Müller (2007). The status of (34) is somewhat less clear under the assumption that T may initiate syntactic operations only after it has inherited the relevant uninterpretable features from C (Chomsky 2004). One might argue, however, that this particular situation does not conflict with (34), since T in fact has no probe properties prior to Merge of C. After C has been added, the relevant features (e.g.,  $u\phi$ , EPP) are handed over to T, giving rise to cases of ‘parallel probing’ where the operations triggered by C and T apply in parallel.

### Agree

- Expletives as probes: The checking/valuation relation between a functional head F and an expletive merged in F's specifier is initiated by the expletive itself (cf. Chomsky 2000: 128, 2004: 114).
- Derivation of generalization (33): After an expletive has established an Agree relation with C or T, C/T become inert and may not trigger further operations. As a result, they can neither attract further elements nor project additional specifiers.
- Loss of V3 in OHG – reanalysis of *thô* as an expletive-like element:

- (36) a.  $[_{CP} \dots \textit{thô} [_C V_{fin} + C_{[+EPP]} [_{TP} \textit{t}_{thô} T [_{VP} \dots]]]] \rightarrow$   
 b.  $[_{CP} \textit{thô} [_C V_{fin} + C_{[+EPP]} [_{TP} \dots T [_{VP} \dots]]]]$

- (i) insertion of *thô* in SpecCP eliminates C's EPP-feature.
- (ii) *thô* carries an uninterpretable feature [uF] that renders it active and must be eliminated as well.<sup>13</sup>
- (iii) Following Chomsky (2000, 2004), *thô* acts as a probe that accesses C as the closest goal. As a result, *thô*'s [uF] deletes.
- (iv) Crucially, C is inert and cannot trigger any further operations after it has been accessed by the expletive probe. Thus, C may not project further specifiers, ruling out a structure as in (37).



- After the reanalysis, examples with clause-initial *thô* provided positive evidence to the learner that at least in a certain context, C could not project more than a single specifier.
- The relevant examples were particularly frequent in OHG, which suggests that they played an important role in the PLD constructed from the input.
- Together with the fact that the original semantic/pragmatic motivation for XP-fronting was becoming more and more opaque, the reanalysis (31) can be taken to have tipped the scales in favor of a strict V2 grammar that lacks the possibility of multiple specifiers in the C-domain.

<sup>13</sup> As to the nature of [uF], we might speculate that it relates either to C's clause type features (i.e., [+declarative] in the case at hand) or to the fact that C in V2 languages is typically linked to finiteness. The latter might be taken to indicate that both C and the expletive *thô* carry an uninterpretable tense specification [uTns]. This seems to make the correct typological prediction that cross-linguistically, C-related expletives are confined to V2 languages. I leave this point open for future research.

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