

Peripheries in Continental West Germanic

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Abstract: The Continental West Germanic languages provide a fertile ground for studying the structure of the clausal peripheries and the syntactic relations (movement or otherwise) between elements in the clausal peripheries and positions in the remainder of the clause. The left periphery is marked by the verb-second effect, positioning the finite verb to the immediate right of the first constituent. There is some evidence for distinguishing separate positions for topics and *wh*-elements in the left periphery, but very little evidence for the full range of left-peripheral positions proposed in the literature. In addition, there appears to be a position for even more peripheral elements that do not trigger the verb-second effect, i.e., left-dislocation. The right periphery likewise shows a distinction between more and less canonical peripheral regions, involved in extraposition and right-dislocation (backgrounding or afterthought), respectively. Neither the structure of the right periphery nor the processes by which elements come to occupy these positions are fully understood, suggesting that the traditional tool kit for describing them (including rightward movement) may need to be replaced or enriched by others, involving conjunction and ellipsis.

Keywords: syntax, Germanic, verb-second, topicalization, extraposition, dislocation, right-dislocation, left-dislocation, *wh*-questions

1 Preliminaries

This paper discusses the syntax of the left and right peripheries of the clause in Dutch and (High) German, with only occasional reference to other varieties, such as Frisian and Afrikaans, or dialects such as Bavarian and West-Flemish. Even with these restrictions, this is a rich field that our treatment can only explore the major outlines of.

The Continental West Germanic languages are head-initial OV-languages: all phrases are clearly head-initial (complementizers preceding the remainder of the clause, determiners being to the left of the noun phrase, etc.), except the verb phrase (VP), where nominal objects appear to the left of the verb in embedded clauses. In main clauses, the finite verb appears to the immediate right of the first clausal constituent ('verb second' or V2), a marked pattern (i.e. occurring only with finite verbs and only in main clauses) and hence not representative of the basic organization of the clause.

The conception of the clause as involving left and right peripheries is directly connected with the circumstance that the verb can appear in these two clearly distinguished positions: the V2 position in main clauses, and the final position in embedded clauses and nonfinite constructions (such as nominalizations). We may provisionally define the left periphery as the set of positions to the left of the V2 position, and the right periphery as the set of positions to the right of the verb-final position.

(1) Peripheries in Continental West-Germanic

left periphery — V2 — middle field — verb-final — right periphery

Typical occupants of the left periphery are wh-elements, topics, subjects, and ‘high’ adverbs. However, the left periphery typically can host just a single category (but see Müller 2003), as the finite verb will follow the leftmost peripheral element, in case there are more (e.g. a wh-element or a topic phrase in addition to the subject):

- (2) Subject-verb inversion, Dutch
- a. *Tasman* *heeft* *Nieuw Zeeland ontdek-t.*
Tasman AUX.3SG New Zealand discover-PART
‘Tasman discovered New Zealand.’
- b. *Wanneer* *heeft* ***Tasman*** *Nieuw Zeeland ontdek-t?*
when AUX.3SG Tasman New Zealand discover-PART
‘When did Tasman discover New Zealand?’

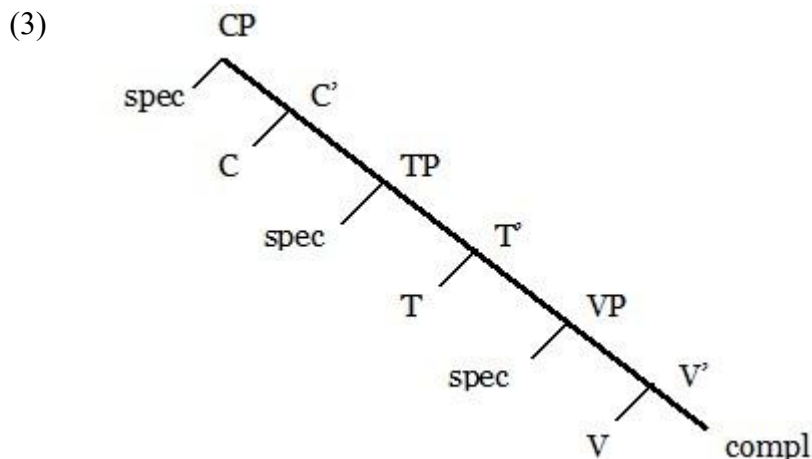
In (2), the two verb positions are indicated in italics. As can be seen, the subject *Tasman* appears in the left periphery in (2a), but in the middle field in (2b), due to the appearance of the wh-element *wanneer* ‘when’ in the left periphery in (2b).

Typical occupants of the right periphery are clauses and (in Dutch) prepositional phrases (PPs). These clauses can be complement clauses or adjunct clauses, and also relative clauses of all kind, associated with a noun phrase in the middle field. Likewise, PPs can be complements (of the verb) or adjuncts, or extraposed constituents of a noun phrase in the middle field, but not secondary predicate PPs (a.k.a. ‘Small Clause predicates’). Unlike the left periphery, the right periphery can host multiple occupants.

The basic organization of the clause in (1) is reminiscent of the traditional analysis in terms of the ‘topological fields’ *Vorfeld* ‘initial field’, *Mittelfeld* ‘middle field’, and *Nachfeld* ‘final field’, introduced in Drach (1937). In this system, the two verb positions are referred to as *Satzklammer* ‘sentence brackets’, the V2-position representing the ‘left bracket’ and the verb-final position the ‘right bracket’. This emphasizes the peripheral nature of the initial and final fields as being ‘outside the brackets’, which leads to the characterization of elements appearing in these fields as either fronted (to the left) or extraposed (to the right).

To some extent, the organization of the clause in (1), and hence also the traditional topological fields analysis, can be mapped onto the hierarchical phrase structure model of the clause that is at the center of grammatical analysis in the generative tradition. But as we should make clear in this survey, the mapping is not straightforward and leaves many questions about the detailed organization of the peripheries unanswered.

To clarify, consider the basic organization of the clause according to much of the generative tradition in (3) (where *spec* = ‘specifier’, *compl* = ‘complement’, and X’ refers to the intermediate level of phrase structure between the head X and the phrase XP).



Taking the verb-final position in (1) to be V in (3), the right periphery can be defined as the complement position of V, and any potential adjunction position to the right of the main projection line in (3). Alternatively, if we take the VP to be head-final, with the complement appearing to the left of V, the right periphery reduces to the set of adjunction positions to the right. The problem with this is that the set of adjunction positions to the right is largely *terra incognita*: there is no robust cartography of this area of the clause in terms of phrase structure, unlike the much better charted areas to the left of the main projection line (which shows a regular alternation of head positions and specifier positions).

On the left side, we can take the V2-position in (1) to be C in (3), as proposed (essentially) by Paardekooper (1961) and Den Besten (1977). This fits perfectly with the inversion constructions exemplified by (2b), where the subject can be taken to occupy the Spec,TP position, its designated position in the generative tradition since Chomsky (1981). But for subject-initial constructions like (2a), an additional rule must be formulated to nudge the subject from its designated position in Spec,TP to the left-peripheral position Spec,CP (this rule first formulated in Koster 1975: 128). Den Besten (1977: 9) defends this rule on the grounds of rule economy: it allows for a simple verb placement rule that puts the finite verb in C in all main clauses. But on the down side, it forces a rule of subject placement (from Spec,TP to Spec,CP) that is essentially unmotivated (given that the subject is perfectly happy in Spec,TP in embedded clauses). This opens up the possibility of an alternative analysis, in which the subject always occupies its designated position Spec,TP, and Spec,CP is reserved for fronting of elements with particular features (topic, wh) that trigger their movement to Spec,CP (Travis 1984; Zwart 1993). On that analysis, the placement of the finite verb is a *reaction* to these other movements to Spec,CP or Spec,TP, and the V2 position is no longer a fixed position, but the first head position to the right of a fronted category, wherever its exact position may be. If so, V2 in (1) can be equated with a range of positions in (3), T in subject-initial main clauses like (2a), C in inversion constructions like (2b), and in fact various other positions that emerged once CP was reanalysed as consisting of a range of projections (Müller and Sternefeld 1993; Hoekstra and Zwart 1994; Rizzi 1997).

To be sure, there is reason to make further distinctions within both the left and the right periphery in (1), at the very least to accommodate introductory material (e.g. left-dislocated material not triggering verb-second) and ‘trailing’ elements (right-dislocations, including backgrounding right-dislocation and afterthoughts), and we will identify these aspects in the sections that follow.

In the context of this paper, then, we define the peripheries somewhat loosely, as those areas that can be identified as being to the left of the V2-position (‘left periphery’) and to the

right of the verb-final position ('right periphery'), without committing to any particular sharpening of these definitions in terms of the phrase structure of the clause as currently understood.

2 The Left Periphery

In terms of the syntactic categories appearing in the left periphery in Continental West Germanic, the following generalizations can be made.

- (i) In unmarked main clauses, the first constituent is the subject (e.g. 2a).
- (ii) Interrogative phrases must appear in the leftmost position of the clause (e.g. 2b).
- (iii) Topics (discourse-old elements) preferably appear in the leftmost position of the clause.
- (iv) Focus material (discourse-new elements) appears to be systematically absent from the left periphery.

We discuss these generalizations in turn.

2.1 Subjects

The subject in Continental West Germanic can be identified as the category that controls agreement on the finite verb (the third person singular marking on the auxiliary in (2a) derives from the inherent person/number features of the subject *Tasman*). Weak subject pronouns, including expletives (4b), also appear in the left periphery (but note that expletive subjects do not control verb agreement):

- (4) Weak subject pronouns in the left periphery, German (a) and Dutch (b)
 - a. *Es hat ge-klapp-t.*
3SG.N AUX:3SG GE-succeed-PART
'It worked.'
 - b. *Er staa-t een paard in de gang.*
EXPL stand-3SG INDEF.SG horse in DEF corridor
'There's a horse standing in the corridor.'

In main clauses, subject-verb inversion applies as soon as some other category occupies the leftmost position (e.g. (2b)).

In embedded clauses, the subject appears to the right of the complementizer (C):

- (5) The subject in embedded clauses, Dutch (a) and German (b)
 - a. ... *dat Tasman Nieu Zeeland ontdek-t heeft.*
C Tasman New-Zealand discover-PART AUX:3SG
'... that Tasman discovered New Zealand.'
 - b. ... *dass es ge-klapp-t hat.*
C 3SG.N GE-succeed-PART AUX:3SG
'... that it worked.'

Since we take clause-initial subjects to occupy a position in the left periphery, the left periphery cannot be defined as an operator position.

2.2 Interrogatives

Interrogative phrases must appear in the leftmost position of the clause:

- (6) Interrogatives, German (a) and Dutch (b)
- a. *Was hast du ge-mach-t?*
what AUX:2SG 2SG.NOM GE-do-PART
'What did you do?'
 - b. *Wanneer heeft Tasman Nieuw Zeeland ontdek-t?*
when AUX:3SG Tasman New-Zealand discover-PART
'When did Tasman discover New Zealand?'

Ordinarily, clause-internal wh-elements, in particular (deaccented) interrogative pronouns, are interpreted as indefinite quantifiers (i.e. German *was* / Dutch *wat*, 'something') (7a). Wh-in-situ constructions are only felicitous in an echo question or quiz question interpretation (7b). But when there are multiple wh-elements, one wh-element occupies the left periphery, and the other appears in situ, without losing its interrogative force or forcing an echo reading (7c):

- (7) Interpretations of in-situ wh-elements, Dutch
- a. *Je moet wat doe-n.*
2SG must:SG what do-INF
'You must do something.'
 - b. *Je heb-t wát ge-daan?*
2SG AUX-2SG what GE-do:PART
'You did what?'
 - c. *Wie heeft wat ge-daan?*
who AUX:3SG what GE-do:PART
'Who did what?'

Unlike subjects, wh-elements never undergo inversion with the finite verb ((8) is intended to result from (9a) via fronting of *in 1642*):

- (8) No wh-verb inversion, Dutch
- **In 1642 heeft welk eiland Tasman ontdek-t?*
in 1642 AUX:3SG which island Tasman discover-PART
[intended] 'Which island did Tasman discover in 1642?'

To express (8), *in 1642* would have to appear in the middle field (or in the right periphery), or, when fronted, it would have to precede the wh-phrase and be resumed in the middle field by the temporal demonstrative *toen* 'then' (yielding a so-called *hanging topic* or *Freies Thema* construction):

- (9) a. *Welk eiland heeft Tasman in 1642 ontdek-t?*
which island AUX:3SG Tasman in 1642 discover-PART
- b. *In 1642, welk eiland heeft Tasman toen ontdek-t?*
in 1642 which island AUX:3SG Tasman then discover-PART
[both] 'Which island did Tasman discover in 1642?'

In embedded clauses, the wh-phrase precedes the complementizer. This can only be shown in dialects and colloquial varieties, where a combination of a wh-phrase and a complementizer is

not frowned upon:

(10) Wh-elements in embedded clauses, Bavarian (a) and Colloquial Dutch (b)

- a. ... *wann dass da Xavea kumm-t.*
when C DEF Xaver come-3SG
'... when Xaver comes.'
(Bayer 1984: 24)
- b. ... *wanneer of dat hij kom-t.*
when C:INT C 3SG.M.NOM come-3SG
'... when he comes.'

As can be seen in (10b), a special interrogative complementizer (*of* in Dutch) may appear when the wh-element occupies the embedded clause left periphery (as noted by Weiß 1998: 32, this does not happen with the interrogative complementizer *ob* in Bavarian).

Wh-elements appearing in the left periphery are arguably moved there from a position further down the clause, and are interpreted as expressing the grammatical function associated with that vacated position (reconstruction). Thus, *welk eiland* 'which island' in (9a) is interpreted as the object of the clause, and the object position is left empty (cf. *Tasman heeft in 1642 Nieuw Zeeland ontdekt*, where the object position is occupied by *Nieuw Zeeland*).

The movement taking the wh-element to the left periphery can be shown to be unlimited, in terms of the number of clausal embeddings it can negotiate (11a), and it is subject to the usual locality conditions found to apply to these kinds of movements (e.g. no wh-movement across a wh-element, (11b), or out of an adjunct clause, (11c)):

(11) Locality of wh-movement, Dutch

- a. *Welk eiland zei Tasman (of) dat hij in 1642*
which island say:PAST.SG Tasman C:INT C 3SG.M.NOM in 1642
ontdek-t had?
discover-PART AUX:PAST.SG
'Which island did Tasman say that he discovered?'
- b. **Wanneer zei Tasman welk eiland dat hij ontdek-t*
when say:PAST.SG Tasman which island C 3SG.M.NOM discover-PART
had?
AUX:PAST.SG
[intended] 'What was the time that Tasman said that he discovered which island at that time?'
- c. **Welk eiland zei Tasman dat hij wou sterv-en na*
which island say:PAST.SG Tasman C 3SG.M.NOM MOD:3SG die-INF after
dat hij ontdek-t had?
C 3SG.M.NOM discover-PART AUX:PAST.SG
[intended] 'Which island did Tasman say that he was willing to die after he had discovered that island?'

These features reveal that wh-movement in Continental West Germanic is a case of A'-movement (in the terminology of Chomsky 1981). The possibility of inserting *of* in (11a) can be taken to indicate that long-distance wh-movement is successive-cyclic, i.e. that it can only take place by making an intermediate landing in the specifier of CP in the embedded clause (cf. Müller and Sternefeld 1993; Hoekstra and Zwart 1994).

In a remarkable variant of long-distance wh-movement, the wh-element can be expressed in the left periphery of each involved clause (12b), where the wh-element in the left

periphery of the main clause can be replaced by a generic wh-operator (12c). This is found in at least Frisian and [Colloquial] German (e.g. Hiemstra 1986; McDaniel 1989; Fanselow 2006; Schippers 2012):

- (12) Long distance, wh-copying and partial wh-movement, Frisian
- a. *Wa tink-e jo dat ik sjoen haw?*
 who think-2PL 2PL C 1SG see:PART AUX:1SG
 - b. *Wa tink-e jo wa 't ik sjoen haw?*
 who think-2PL 2PL who C 1SG see:PART AUX:1SG
 - c. *Wat tink-e jo wa 't ik sjoen haw?*
 what think-2PL 2PL who C 1SG see:PART AUX:1SG
 [all] ‘Who do you think that I saw?’

2.3 Topicalization and Left-Dislocation

A third category commonly appearing in the left periphery in Continental West Germanic is what is usually referred to as ‘topics’ (and the ensuing construction ‘topicalization’). Topics refer to elements that are active in the discourse, prototypically represented by demonstrative pronouns, as in (13).

- (13) Topicalization, German (a) and Dutch (b)
- a. *Die kann ich schon gar nicht leid-en.*
 DEM:F.SG can:1SG 1SG.NOM PRT at.all NEG suffer-INF
 ‘I can’t stand her at all.’
 - b. *Dat wist ik niet.*
 DEM:N.SG know:PAST.SG 1SG.NOM NEG
 ‘I didn’t know that.’

The fronted pronouns *die* and *dat* in (13) are typically unstressed (contrastive stress is always an added possibility). Other than interrogative pronouns, they can also be found in the middle field, but these word orders seem contrived in comparison with (13). However, when the left periphery is occupied by a wh-element, demonstratives can appear in the middle field without losing their status as referring to elements active in the discourse:

- (14) In-situ demonstrative elements, Dutch
- Waarom wist ik dat niet?*
 why know:PAST.SG 1SG.NOM DEM:N.SG NEG
 ‘How come I didn’t know that?’

Weak object pronouns, other than weak subject pronouns (e.g. (4) and (7a-b)), cannot appear in the left periphery (*pace* Weerman 1988: 62):

- (15) No weak object pronouns in the left periphery
- **T wist ik niet.*
 3SG.N know:PAST.SG 1SG.NOM NEG
 [intended] ‘I did not know it.’

This suggests that (nondemonstrative) weak pronouns, while being interpreted in relation to some (implicit or explicit) salient entity, cannot themselves act as topics. It also suggests that the subject position, which can host weak subject pronouns, as we have seen, is not a topic

position.

The comparison of topics with subjects and weak pronouns requires us to be more precise about the definition of ‘topic’ (see Molnár, Egerland and Winkler 2019 for a recent survey of the difficulties involved). In addition to referring to some discourse-active entity, a topic appears to structure the information of the sentence in which it appears, by presenting an element as that which the sentence is about, or as establishing a frame in which the sentence holds (Chafe 1976: 50). This makes it possible for adverbials to appear in the topic position, as in:

- (16) Topicalized adverbials, Dutch
Gisteren deed ik het nog.
yesterday do:PAST.SG 1SG.NOM 3SG.N still
‘I still did it yesterday.’

High adverbials like (Dutch) *volgens mij* ‘in my opinion’ and *waarschijnlijk* ‘probably’, which can easily appear in the topic position in Continental West Germanic (cf. Fanselow and Lenertová 2011: 173–174 for German), are likely also to be understood in the context of the frame-setting conception of topics.

The connection between the topic and the discourse can be quite subtle, as discussed in Prince (1998: 289), for instance when the topic refers to an element that is in itself new, but can be understood in relation to (i.e. is a part of, or a subtype of) a discourse-active element.

As argued by Speyer (2019), the topic position in German appears to have emerged as a position for ‘aboutness’ topics in Old High German, gradually weakening to a position for all elements that can be seen as connecting the sentence to the discourse (‘bridging’ elements) in the development of Early New High German and Modern German (Speyer 2019: 353). Apparently pronouns in Germanic need to be demonstrative in order to act as bridging elements in this sense.

An example like (13a) can be expanded by making the discourse-prominent element that the demonstrative relates to explicit, yielding the so-called ‘left-dislocation’ construction (Altmann 1981: 47–48):

- (17) Left-dislocation, German
Den Hans, den kann ich nicht leid-en.
DEF.M.ACC Hans DEM:M.SG can:1SG 1SG.NOM NEG suffer-INF
‘Hans, I can’t stand him at all.’

In this construction, the left-dislocated element is prosodically integrated with the remainder of the clause, agrees with the corresponding demonstrative pronoun in morphological features (such as case), and cannot be modified by elements like *übrigens* ‘incidentally’. In contrast, the left-dislocated element and the pronoun can be separated by parentheticals like *aber* ‘however’ (Dutch *echter*).

In (17), the demonstrative *die* is preferably left-peripheral, but not when the topic is combined with a wh-element, as in (18) (cf. (9a)):

- (18) *Der Hans, warum kann-st du den nicht leid-en?*
DEF.M.NOM Hans why can-2SG 2SG.NOM DEM:M.SG.ACC NEG suffer-INF
‘Hans, why can’t you stand him?’

In such cases, the left-peripheral element is more clearly set off from the rest of the clause, as shown by the prosody (a marked pause and an independent pitch accent), morphology (default

nominative case, regardless the case of the corresponding pronoun), and syntax (the possibility of having its own modifiers such as *übrigens* ‘incidentally’) (see Altmann 1981: 48–51). In this case, no parentheticals can show up between the left-peripheral element and the rest of the clause.

In a hanging topic left-dislocation, the pronoun associated with the left-peripheral element need not be demonstrative (Van Riemsdijk and Zwarts 1997: 20):

- (19) Resumption by personal pronoun, Dutch
Die boek-en, ik heb ze gisteren ge-kocht.
 DEM:PL book-PL 1SG AUX:1SG 3PL yesterday GE-buy:PART
 ‘Those books, I bought them yesterday.’

See Section 3 for the important role played by such pronouns in right-dislocation.

In embedded clauses in Continental West Germanic, topicalization does not come naturally, and is arguably completely absent (we ignore embedded clauses with main clause order, which we take to be essentially independent clauses, cf. Zwart 1997: 230–231). Thus, next to (13b), we do not find (20b):

- (20) No topicalization in embedded clauses, Dutch
 a. *Ik zei dat ik dat niet wist.*
 1SG say:PAST.SG C 1SG DEM:N NEG know:PAST.SG
 ‘I said that I didn’t know that.’
 b. **Ik zei dat dat ik niet wist.*
 1SG say:PAST.SG C DEM:N 1SG NEG know:PAST.SG

The same goes for left-dislocation and hanging topic left-dislocation. Adverbs can appear in a left-peripheral position in embedded clauses, but it is doubtful that they have the same frame-setting quality as in main clauses:

- (21) Left-peripheral adverbs in embedded clauses, Dutch
 ... *dat waarschijnlijk Tasman Cook niet ken-de.*
 C probably Tasman Cook NEG know-PAST.SG
 ‘... that probably Tasman didn’t know Cook.’

This makes it difficult to use the complementizer in gauging the exact position of topicalized material in the left periphery.

Like wh-elements, topics are associated with a gap inside the clause, and if there is movement involved in topicalization, it is of the A’-movement type. In left-dislocation, it is arguably the demonstrative pronoun that undergoes the movement and is associated with the gap, and the topic itself can be taken to be base-generated in a left-peripheral position. One way of generalizing over topicalization and left-dislocation would be to argue that topics are base-generated in the left periphery, and that topicalization is accompanied by fronting of a zero demonstrative pronoun (cf. Weerman 1989: 52; Zwart 1998: 375–376).

Long-distance topicalization (where the left-peripheral element is associated with a gap in an embedded clause) differs in interesting ways from long-distance wh-movement. First, long-distance topicalization appears to bypass intermediate wh-elements (unlike long-distance wh-movement, cf. (11b)) (Fanselow 1987: 58):

- (22) No wh-island effect with long-distance topicalization, German
Radio-s habe ich vergessen wie man reparier-t.
 radio-PL AUX:1SG 1SG forget:PART how one repair-3SG
 ‘I forgot how one repairs radios.’

Secondly, the interrogative complementizer we saw in (11a) fails to show up in long-distance topicalization (Hoekstra and Zwart 1994):

- (23) No interrogative complementizer with long-distance topicalization, Dutch
*Nieuw Zeeland zei Tasman (*of) dat hij in 1642*
 Nieuw Zeeland say:PAST.SG Tasman C:INT C 3SG.M.NOM in 1642
ontdek-t hat.
 discover-PART AUX:PAST.SG
 ‘Tasman said that he discovered New-Zealand in 1642.’

These observations may be taken to shed light on the nature of the various fronting operations, and the fine structure of the left-periphery in embedded clauses (see Section 2.5).

Whereas topicalization in the modern standard Continental West Germanic languages invariably triggers verb-second, this was not always the case, and it is still not the case in minority languages, such as urban vernaculars (Wiese 2009) and certain dialects, e.g. West-Flemish (Haegeman and Greco 2018). For example:

- (24) Topicalization without verb-second, West-Flemish
Oan-k toe kwam-en de deure stond open.
 when-1SG PRT come:PAST-1SG DEF door stand:PAST.SG open
 ‘When I arrived, the door was open.’
 (Haegeman and Greco 2018: 8)

The second constituent in these ‘verb third’ constructions is invariably the subject (Zwart 2023, *pace* Walkden 2017 on Kiezdeutsch).

2.4 Focus

Fully discourse-new material does not appear to require movement to the left periphery (based on data in Jansen 1981, a corpus study of spoken Dutch). Focus (a prosodic marking evoking alternatives) is marked by pitch accent, not by word order, in the Continental West Germanic languages. When we find focused (high pitched) material in the left periphery, this can be accounted for as a narrowly focused wh-element or topic.

For example, in (25), *je paspoort* ‘your passport’ is just a topic in (25a), so that the sentence (which is normally intonated) is interpreted as being about your passport, but in (25b), where *je paspoort* is focused (small caps indicating high pitch), it gets the additional reading that the sentence is only about your passport and not about potential alternative items.

- (25) Topic with and without focus, Dutch
 a. *Je paspoort moet je niet verget-en.*
 POSS:2SG passport must:SG 2SG NEG forget-INF
 ‘Don’t forget your passport.’
 b. *Je PASPOORT moet je niet verget-en.*
 POSS:2SG passport must:SG 2SG NEG forget-INF
 ‘What you mustn’t forget is your passport.’

A case where topic and focus combine are so-called contrastive topic constructions (Büring 2016). These are characterized by a marked prosodic pattern, where the contrastive topic and focus elements receive high pitch (the second a little bit higher than the first), and the pitch stays high in between (the so-called ‘hat contour’):

(26) Contrastive topic construction, Dutch

- a. *ZULK-E BOEK-EN ZOU ZELFS JAN niet lez-en.*
 such-PL book-PL MOD:SG even John NEG read-INF
 ‘Such books, even John would not read.’
- b. ... *dat ZULK-E BOEK-EN ZELFS JAN niet zou lez-en.*
 C such-PL book-PL even John NEG MOD:SG read-INF
 ‘... that such books, even John would not read.’

As (26b) shows, this construction can feature in embedded clauses as well, and is treated by Neeleman (2004: 396) as a kind of scrambling (‘focus scrambling’). This suggests that its relevance for the structure of the left periphery is limited.

2.5 Theoretical Implications

The ordering possibilities in the left periphery in Continental West Germanic can be summarized as in (27) (where ‘>’ indicates precedence):

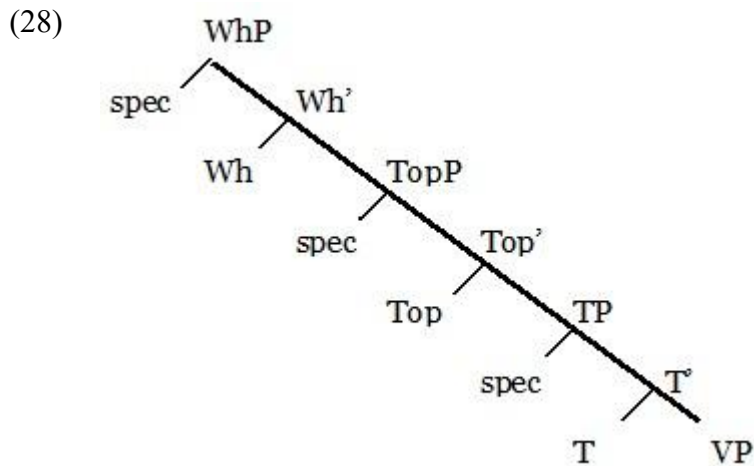
- (27) Left periphery word order generalizations
- a. wh > subject
 - b. topic > subject
 - c. hanging topic > everything else
 - d. wh and topic do not cooccur in the left periphery

These generalizations can be accommodated very well within the basic model of the organization of the clause in (3). Starting from this model, we can state that the subject occupies the Spec,TP position (the designated subject position in generative grammar since Chomsky 1981), and that wh-elements and topics compete for the Spec,CP position. ‘Hanging topics’ would fall outside this picture, as they are arguably extra-sentential (Altmann 1981: 50; Haegeman and Greco 2018: 35–36).

In embedded clauses, we observe that the wh-position is to the left of the complementizer (or complementizers), and the subject position to its right. This confirms that the wh-position is Spec,CP, assuming that the complementizer marks the C-position. It also confirms the Spec,TP position for the subject, as well as the Spec,CP position for (non-hanging) topics, in view of the complementary distribution of topics and wh-elements. The fact that topics do not appear in embedded clauses can arguably be explained independently, by appealing to the ‘discourse bridging’ or frame-setting property of topics.

At this point, it would seem that a finer structure of the left periphery is not called for. Nevertheless, observations regarding long-distance movement of wh-elements and topics suggest a further division of the left periphery in at least a Wh-Phrase (WhP) and a Topic Phrase (TopP) (Müller and Sternefeld 1993; Hoekstra and Zwart 1994 – note that TopP is written as TP in Müller and Sternefeld 1993). This is motivated by (a) the appearance of a *wh*-complementizer in long-distance wh-movement (10a), in addition to the regular non-wh complementizer, and (b) the absence of a locality effect on long-distance topicalization induced by wh-elements occupying the left periphery of the embedded clause (22). These facts are

accommodated by assuming the structure in (28), where CP is split into a higher, interrogative, phrase, hosting wh-elements (and possibly other focus material) in its specifier and the interrogative complementizer in its head, and a lower, noninterrogative phrase, hosting topics in its specifier and the non-interrogative complementizer in its head:



Long-distance movement of wh-elements then proceeds via an intermediate landing in the Spec,WhP of the embedded clause, made visible in (11a) by the appearance of the complementizer *of*. Long-distance topicalization (as in (22)) proceeds via an intermediate landing in the Spec,TopP of the embedded clause, and is not bothered by the presence of a wh-phrase in the adjacent Spec,WhP. Conversely, long-distance wh-movement across a left-peripheral topic is not found, which is not predicted by the structure in (28).

As argued by Hoekstra (1993), the structure in (28) can be expanded at the top by adding a third complementizer phrase, headed by the conditional complementizer (*als* in Dutch). However, this does not appear to affect the word order generalizations relating to the left periphery in Continental West Germanic (see Zwart 2000 for arguments that all three layers are involved in the structure of relative clauses in Dutch).

In an apparently independent development, Rizzi (1997) proposed a similar and influential subdivision of the left periphery, involving separate projections for (at least) the features Force (clause typing), Topic, Focus, and Fin. In this analysis, the specifier of the Focus Phrase hosts both focused elements and wh-phrases, so that we may equate it with WhP (Rizzi 1997: 298). Since we have seen that fronting is not a required strategy for focusing in Continental West Germanic, certain aspects of Rizzi's proposal are not motivated by the empirical observations that concern us here. This is also true for the Topic phrases of which Rizzi proposes several in various positions in the left periphery, motivated by certain word order facts of Italian which cannot be replicated in Continental West Germanic (for independent reasons, see Féry 2013).

Of special concern for a minimalist analysis of the left periphery is the proposal of a FinP (finiteness phrase) in addition to the standardly assumed TP (tense phrase, the IP or inflection phrase of Chomsky 1981) (Rizzi 1997: 284). The problem is that the features making up finiteness (tense and/or agreement, perhaps others as well) are defining properties of T (Infl), and the idea that these are features of the C-system can only be sustained if T were, for some reason, lacking or defective (e.g. Holmberg and Platzack 1988). In this connection Rizzi (1997: 284) points to the phenomenon of complementizer agreement (Van Koppen 2020), and similar phenomena where features associated with T are morphologically expressed on the complementizer. But these are typologically rare and may be better explained in terms of some agreement relation between the complementizer and T. It seems, then, that no gains can be

made by adding a FinP to the structure in (28).

The further articulation of the left periphery raises questions for any approach to the verb-second phenomenon that relies on a fixed rule of verb movement to C. This is because C can now be identified with any number of heads in the structure, making a more flexible approach to verb-second, in which the verb can occupy various head positions in the left periphery, possibly including T, almost inevitable (for discussion, see Zwart 2023 and various articles in Woods and Wolfe 2000).

3 The Right Periphery

In both the left and right periphery, a distinction must be made between elements that are part of the core sentence and those that are dislocated. The traditional final field contains right-extraposed constituents; beyond that, there are backgrounded right-dislocated phrases and afterthoughts. We start out by taking apart these classes, then illustrate the most relevant properties, and discuss some theoretical consequences. The text below is empirically restricted to standard Dutch and German, which behave very similarly—and we will exemplify more or less interchangeably. A useful online overview of extraposition and right-dislocation in Afrikaans is Conradie (2020). A related source concerning Dutch is Broekhuis and Corver (2016: Chapters 12 and 14).

3.1 Basic Types, Intonation, and Information structure

Prepositional objects and modifiers, among other things, can be extraposed to the right of the final verb position. In a default situation, they express new information; if so, they are clearly part of the overall intonation contour, and may even contain the main sentence accent, which is then also shifted to the right. (In particular contexts, there could be contrastive accents elsewhere, *verum focus*, etc., but that does not concern us here. A specific complication involving narrow focus on the predicate is discussed at the end of this short subsection.) By contrast, backgrounded dislocated phrases, not uncommonly reformulations of a subject or object, are necessarily pronounced with a low and level intonation—often without a preceding pause, despite the orthographic comma. They typically specify a pronominal correlate in the core sentence and serve to increase the salience of its referent, which in itself is not entirely new in the discourse. An afterthought, however, does contain new information; it receives an independent intonation contour, preceded by a pause, with its own main accent. These three types are illustrated in (29), where words pronounced with a main (sentence) accent are capitalized, and a backgrounded intonation for right-dislocation is suggested by a smaller font size; see also De Vries (2009, 2011) and Ott and De Vries (2016) for discussion and further references.

- (29) Prototypical intonational differences among extraposition (a), backgrounding right-dislocation (b), and afterthoughts (c), Dutch
- a. *Ze heeft ge-logen over haar INKOMEN.*
3SG.F AUX:3SG GE-lie:PART about POSS:3SG.F income
'She lied about her income.'
- b. *Ik heb 'm al GE-ZIE-N die film.*
1SG AUX:1SG 3SG:OBJ already GE-see-PART DEM movie
'I already saw it, that movie.'

- c. *Ik heb iets INTERESSANTS ge-lez-en, een boek over*
 1SG AUX:1SG something interesting GE-read-PART INDEF book about
de OERKNAL.
 DEF big.bang
 ‘I read something interesting, a book on the big bang.’

An extraposed constituent is still part of the core sentence; consequently, there cannot be a pronominal correlate that would double it. By contrast, a correlate is obligatory in a comparable backgrounding right-dislocation or afterthought configuration, implying that the right-peripheral constituent is not part of the core sentence. This is shown for German in (30).

- (30) Obligatory presence or absence of correlates of peripheral constituents, German
- a. *Sie hat (*darüber) ge-logen über ihr EINKOMMEN.*
 3SG.F AUX:3SG about.it GE-lie:PART about POSS:3SG.F income
 ‘She lied about her income.’
- b. *Ich habe *(ihn) schon GE-SEHEN, diesen Film.*
 1SG AUX:1SG 3SG:OBJ already GE-see:PART DEM movie
 ‘I already saw it, that movie.’
- c. *Ich habe *(etwas INTERESSANTES) ge-kauf-t, ein Buch*
 1SG AUX:1SG something interesting GE-buy-PART INDEF book
über den URKNALL.
 about DEF:ACC.M big.bang.M
 ‘I read something interesting, a book on the big bang.’

When a dislocated constituent represents an adjunct, however, its potential correlate can be left out in the core sentence, and if so, the dislocated constituent appears to be ‘sprouting’.

- (31) Optional correlates of adjuncts, Dutch (a) and German (b)
- a. *Maria is (er/daar) vandaag niet GE-SIGNALEER-D,*
 Maria AUX:3SG LOC:WEAK/STRONG today NEG GE-observe-PART
in het park.
 in DEF park
 ‘Maria has not been observed (there) today, in the park.’
- b. *Ein Einbrecher schlug (dann) das FENSTER ein, MITTEN*
 INDEF burglar hit:PAST then DEF:N window in middle
in der Nacht!
 in DEF:DAT.F night.F
 ‘A burglar broke the window (then), in the middle of the night!’

Somewhat unexpectedly perhaps, right-peripheral adverbs must be analyzed as backgrounded right-dislocated constituents, according to the intonational diagnostics.

- (32) Right-peripheral adverbs involve sprouting backgrounding right-dislocation, Dutch
- a. *Mieke heeft het GE-DAAN, waarschijnlijk / gisteren.*
 Mieke AUX.3SG 3SG.N GE-do:PART probably yesterday
- b. **Mieke heeft het gedaan, WAARSCHIJNLIJK / GISTEREN.*

Notice that in particular contexts, ambiguities may arise between extraposition and backgrounding right-dislocation. Specifically, if there is a right-peripheral prepositional

constituent that is optional (whether adjunct or complement), there is no correlate, and the PP happens to be given in the preceding context, leading to narrow focus; see (33), which can be compared to (29a) and (30a).

- (33) Potential ambiguity between extraposition of given material and backgrounding right-dislocation, Dutch

(CONTEXT) QUESTION: *Did she declare her income to the tax authorities?* ANSWER:

- a. *Nee, ze heeft GE-LOGEN over haar inkomen.*
 no 3SG.F AUX:3SG GE-lie:PART about POSS:3SG.F income
 ‘No, she lied about her income.’
- b. *Nee, ze heeft (erover) GE-LOGEN, over haar inkomen.*
 no 3SG.F AUX:3SG about.it GE-lie:PART about POSS:3SG.F income
 ‘No, she lied (about it), about her income.’

Here, the narrowly focused main verb attracts the main sentence accent. In (33a), the extraposed constituent contains old information. It can still be realized with a secondary accent, but it can also be deaccented to some degree. If so, the difference with dislocation in (33b) becomes practically undetectable, unless a disambiguating correlate is expressed in the latter.

In what follows, we return to regular typography.

3.2 Possible Categories, Combinations of Right-Peripheral Constituents

Extraposition is typically optional, with two exceptions. First, both finite and non-finite object clauses are obligatorily realized in the final field, contrary to nominal objects.

- (34) Obligatory extraposition of object clauses, Dutch

- a. *Peter heeft beloofd [CP dat hij op tijd zou komen].*
 Peter AUX.3SG promise:PART C 3SG.M on time MOD:SG come:INF
 ‘Peter promised that he would be on time.’
- b. **Peter heeft [dat hij op tijd zou komen] beloofd.*
- c. *Peter heeft beloofd [op tijd te komen].*
 Peter AUX.3SG promise:PART on time TO come:INF
 ‘Peter promised to be on time.’
- d. **Peter heeft [op tijd te komen] beloofd.*

A similar contrast exists in German; see also Hartmann (2013) (although there may be exceptions for prosodically light non-finite clauses in certain contexts; an example is cited in Féry 2015: 32).

To compare, extraposition of subject clauses is optional, and, when it takes place, requires an expletive in the regular subject position, for independent reasons (cf. Chomsky 1981, who introduced the Extended Projection Principle).

- (35) Extraposition of a subject clause with an expletive subject, Dutch

- a. *Het is waar ge-bleken [CP dat de directeur heeft ge-fraudeer-d].*
 EXPL AUX:3SG true GE-appear:PART C DEF CEO AUX:3SG
 GE-commit.fraud-PART
 ‘It turned out to be true that the CEO had committed fraud.’
- b. *[Dat de directeur heeft gefraudeerd] is waar gebleken.*

Secondly, result clauses always surface in the final field. Object free relatives are not completely unacceptable in the middle field, but are preferably extraposed.

(36) Obligatory and preferred extraposition of result clauses (a, Dutch) and free relatives (b, German)

- a. *Peter is zo ziek ge-weest* [CP *dat hij in bed moest blijven*].
 Peter AUX:3SG so sick GE-be:PART C 3SG.M in bed MOD:PAST.SG
 stay:INF
 ‘Peter was so sick that he had to stay in bed.’
- a’. **Peter is zo ziek [dat hij in bed moest blijven] geweest.*
- b. *Peter wollte sehen*, [DP [CP *was Linda ge-kauf-t hatte*]].
 Peter want:PAST.SG see:INF what Linda GE-buy-PART AUX:PAST.SG
 ‘Peter wanted to see what Linda had bought.’
- b’. ??*Peter wollte [was Linda gekaucht hatte] sehen.*

Optional extraposition is possible with prepositional objects (sometimes referred to as PP-over-V), prepositional adjuncts, and adverbial clauses.

(37) Optional extraposition of major constituent PPs and CPs, Dutch

- a. *Carla heeft (aan haar moeder) ge-dacht (aan haar moeder).*
 Carla AUX.3SG of her mother GE-think:PART of her mother
 ‘Carla thought of her mother.’
- b. *Carla wil-de (omdat de zon scheen) buiten sport-en*
 Carla want-PAST.SG because the sun shine:PAST.SG outside sport-INF
(omdat de zon scheen).
 because the sun shine:PAST.SG
 ‘Carla wanted to exercise outside because the sun was shining.’
- c. *Carla wil-de (op het strand) frisse lucht hap-pen (op het strand).*
 Carla want-PAST.SG at the beach fresh air take.in-INF at the beach
 ‘Carla wanted to get some fresh air at the beach.’

Furthermore, embedded PPs and CPs, whether complements or adjuncts (including relative clauses), can be extraposed. See also Frey (2015) for German.

(38) Optional extraposition of embedded PPs and CPs, Dutch (a-d) and German (e)

- a. *Carla is altijd [dol (op chocola)] ge-weest (op chocola).*
 Carla AUX.3SG always crazy on chocolate GE-be:PART on chocolate
 ‘Carla has always been crazy about chocolate.’
- b. *Carla heeft [een man (met een rode hoed)] ontmoet*
 Carla AUX.3SG INDEF man with INDEF red:AGR hat meet:PART
(met een rode hoed).
 with INDEF red:AGR hat
 ‘Carla met a man in a red hat.’
- c. *Carla heeft [tegen de vervuiling (van het strand)] ge-protesteer-d*
 Carla AUX.3SG against DEF pollution of DEF beach GE-protest-PART
(van het strand).
 of DEF beach
 ‘Carla protested against the pollution of the beach.’

- d. *Carla heeft [het gerucht (dat de baas corrupt is)] ontkracht*
 Carla AUX.3SG DEF rumor C DEF boss corrupt be:3SG debunk:PART
 (dat de baas corrupt is).
 C DEF boss corrupt be:3SG
 ‘Carla debunked the rumor that the boss is corrupt.’
- e. *Carla hat [einen Mann (der gerne strickt)]*
 Carla AUX.3SG INDEF:ACC.M man REL:NOM.M with.pleasure knit:3SG
ge-funden (der gerne strickt).
 GE-find:PART REL:NOM.M with.pleasure knit:3SG
 ‘Carla found a man who likes to knit.’

However, predicates and measure phrases can never be extraposed (cf. Bennis and Hoekstra 1989).

- (39) No extraposition of predicates or measure phrases, Dutch (a-b) and German (c-d)
- a. *Carla is {in het park, ziek, student} ge-weest.*
 Carla AUX.3SG in DEF park sick student GE-be:PART
 ‘Carla was {in the park, sick, a student}.’
- a’. **Carla is geweest {in het park, ziek, student}.*
- b. *Peter heeft honderd kilo ge-wogen (*honderd kilo).*
 Peter AUX.3SG 100 kilo GE-weigh:PART
 ‘Peter weighed 100 kilos (sc. at some point).’
- c. *Lotte ist (krank) ge-wesen (*krank).*
 Lotte AUX:3SG sick GE-be:PART
 ‘Lotte was sick.’
- d. *Dieser Tisch hat uns (tausend Euro) ge-kostet*
 DEM:NOM.M table AUX.3SG 1PL.DAT 1000 euro GE-cost:PART
 (*tausend Euro).
 ‘This table cost us €1000.’

Heavy NP shift (HNPS) is a marginal phenomenon in Dutch and German. In fact, only HNPS with a specialized ‘colon intonation’, usually associated with enumerations, are fully acceptable; regular heavy object NPs cannot be shifted to the final field in the absence of such a LH% tonal pattern on the right sentence bracket.

- (40) No heavy NP shift, except in enumerations, Dutch
- a. *Vandaag gaan we kopen: een T-shirt, twee boek-en en*
 today go:PL 1PL buy:INF INDEF T-shirt two book-PL CONJ
een nieuwe tas.
 INDEF new:AGR bag
 ‘Today we’re going to buy: a T-shirt, two pairs of pants, and a new bag.’
- b. **Ik heb vandaag ontmoet een oude man met*
 1SG AUX.1SG today meet:PART INDEF old:AGR man with
een rode jas.
 INDEF red:AGR coat
 [intended] ‘I met a man in a red coat today.’

Right-dislocation (RD), whether backgrounding or afterthought, is less restricted than extraposition. Compare the illustrations of predicate RD in (41) to the impossibility of extraposition in (39), for example.

- (41) No categorial restrictions on right-dislocation, Dutch (a-b) and German (c)
- a. *Carla is daar ge-weest, in het park.*
Carla AUX.3SG DEM:LOC GE-be:PART in DEF park
'Carla was there, in the park.'
 - b. *Peter heeft echt veel ge-wogen: honderd kilo!*
Peter AUX.3SG really a.lot GE-weigh:PART 100 kilo
'Peter really weighed a lot (at some point): 100 kilos!'
 - c. *Lotte ist das auch ge-wesen, krank.*
Lotte AUX.3SG DEM:N also GE-be:PART sick
'Lotte has also been sick.'

Essentially, there are no categorial or functional restrictions. This is similar to the situation for contrastive left-dislocation; see De Vries (2007) for a succinct overview.

Since afterthoughts can be predicative, it is not immediately clear whether right-peripheral appositives are to be considered as afterthoughts or as extraposed non-restrictive material.

- (42) Dislocated secondary predicates, Dutch (a) and German (b)
- a. *Ik heb Jan ge-zien, gekleed in een tuinbroek.*
1SG AUX.1SG John GE-see:PART dressed in INDEF dungaree
'I saw John, dressed in dungarees.'
 - b. *Ich habe Jan ge-sehen, {Gärtner von Beruf / der Gärtner ist}.*
1SG AUX.1SG John GE-see:PART gardener of profession REL:NOM.M
gardener be:3SG
'I saw John, {a gardener by profession / who is a gardener}.'

Whatever the analysis, the resulting effect is the same: a non-restrictive secondary predicate containing new information expressed in a right-peripheral position.

When there are two (or more) extraposed constituents, mirror effects show up (see also Koster 1974 and subsequent work concerning extraposed adverbials). For instance, subject-related modifiers obligatorily follow object-related ones in the right periphery (cf. De Vries 2002: Ch 7 and Appendix).

- (43) Mirror effects in extraposition, Dutch
- Meer kinderen dan volwassenen hebben dit boek over tovenaars-ge-lezen.*
more child:PL than adult:PL AUX:PL DEM book on magician-PL
GE-read:PART
'More children than grownups read this book on magicians.'
- a. *Meer kinderen hebben dit boek gelezen over tovenaars dan volwassenen.*
 - b. **Meer kinderen hebben dit boek gelezen dan volwassenen over tovenaars.*

Similarly, an indirect/direct object mirror effect can be shown in German.

- (44) Mirror effects in extraposition, German
Ich habe jenem Kind das sehr gerne lies-t
 1SG AUX:1SG DEM:DAT child.N REL:N very with.pleasure read-3SG
ein Buch mit vielen Seiten ge-schenkt.
 INDEF book with many:PL.DAT page:PL GE-give:PART
 ‘I gave that child who is very fond of reading, a book with many pages.’
 a. *Ich habe jenem Kind ein Buch geschenkt mit vielen Seiten, das sehr gerne liest.*
 b. **Ich habe jenem Kind ein Buch geschenkt das sehr gerne liest mit vielen Seiten.*

Interestingly, multiple dislocation results in anti-mirror effects, meaning that the order of correlates in the host sentence is preserved.

- (45) Anti-mirror effects in right-dislocation, German
 a. *Sie hat ihn bemerkt, die Lotte den Hans.*
 3SG.F AUX.3SG 3SG.M.ACC notice:PART DEF:SG.F Lotte DEF:SG.M.ACC Hans
 ‘She noticed him, [i.e.] Lotte [noticed] Hans.’
 a’. **Sie hat ihn bemerkt, den Hans die Lotte.*
 b. *Nur ein Student hat ein Buch ge-lesen der Hans*
 only one student AUX.3SG INDEF book GE-read:PART DEF:SG.M Hans
 ‘Syntactic Structures’!
Syntactic Structures
 ‘Only one student read a book, [i.e.] Hans [read] “Syntactic Structures”!’
 b’. **Nur ein Student hat ein Buch gelesen, “Syntactic Structures” der Hans!*

In Dutch, multiple dislocation of arguments does not seem to be possible, but combinations with adjuncts do occur. When different types are combined, extraposed material precedes dislocated constituents, and backgrounded right-dislocated phrases precede afterthoughts. This is illustrated in (46).

- (46) Order of extraposition, backgrounding right-dislocation, and afterthoughts,
 Dutch (a-b) and German (c)
 a. EXTRAPOSITION < BACKGROUNDING
Ik heb het op de dag ge-kregen dat ik jarig
 1SG AUX.1SG 3SG.N on DEF day GE-get:PART C 1SG having.anniversary
was, dat cadeau.
 be:PAST.SG DEM present
 ‘I got it on my birthday, that present.’
 b. BACKGROUNDING < AFTERTHOUGHT
Ik heb haar toen ook ge-zien, die vrouw gisteren —
 1SG AUX.1SG 3SG.F.ACC then also GE-see:PART dem woman yesterday
in het park!
 in DEF park
 ‘I saw her then as well, that woman yesterday, in the park!’
 c. EXTRAPOSITION < BACKGROUNDING < AFTERTHOUGHT
Dann hat ein Star ihr ein Buch ge-schenkt
 then AUX.3SG INDEF star 3SG.F.DAT INDEF book GE-give:PART
über Linguistik, der Lotte: Noam Chomsky!
 on linguistics DEF.F.DAT Lotte Noam Chomsky
 ‘Then a star gave her a book on linguistics, [i.e.] Lotte: Noam Chomsky!’

Other orders are hardly conceivable; see Ott and De Vries (2016: Section 5.2) for more discussion.

3.3 Locality Effects and Reconstruction

As is clear from previous examples and the cited literature, extraposition of PP or CP modifiers may take place from any major constituent: subject, indirect object, direct object, adjuncts, and even from topicalized phrases. Extraposition across other arguments is sometimes dispreferred, especially if it leads to ambiguity or if there is a stressed intervener, but there is no syntactic restriction on it, and potential ambiguity is often resolved by means of intonation (focus), cataphoric demonstratives, and/or the morphological expression of agreement or case; see also (59) in Section 3.4.

Extraposition and dislocation involve the clause boundary: intraposition at other positions within the host is clearly excluded.

- (47) No clause-medial intraposition, Dutch
- a. *Een man [met een lange baard] wilde op het bankje gaan zitten.*
a man with a long beard wanted on the beach go sit
‘A man with a long beard wanted to sit down on the bench.’
 - a’. **Een man wilde [met een lange baard] op het bankje gaan zitten.*
 - a’’. **Een man wilde op het bankje [met een lange baard] gaan zitten.*
 - a’’’. *Een man wilde op het bankje gaan zitten [met een lange baard].*
 - b. *Ze wilde (*X) gisteren (*X) een ijsje (*X) kopen, (Lotte)_x.*
she wanted yesterday an icecream buy Lotte
‘Lotte wanted to buy an icecream yesterday.’

With some effort, it is possible to extrapose from an embedded position, see (48), but not across a right clause boundary (cf. Zwart 2005: note 4); see (49). This so-called Right Roof constraint, which goes back to Ross (1967), also applies to backgrounding right-dislocation.

- (48) Extraposition from a deeply embedded position, Dutch
- a. *De douane heeft [de papieren [van [een man __]]] ge-controleerd*
DEF customs AUX.3SG the papers of a man GE-check:PART
uit Spanje.
from Spain
‘Customs checked the papers of a man from Spain.’
 - b. *We hebben [in [het huis [van [een man __]]]] vergaderd*
we AUX:PL in the house of a man meet:PART
die geen meubels bezit.
REL no furniture own:3SG
‘We had our meeting in the place of a man who owns no furniture.’
- (49) No extraposition or backgrounding right-dislocation across a right clause boundary, Dutch
- a. **[Dat Lotte [een fiets __] bezit] beval-t me niet*
C Lotte a bike own:3SG please-3SG 1SG:OBJ NEG
zonder achterlicht.
without rear.light
[intended] ‘I don’t like that Lotte owns a bike without a back light.’

- b. **[Toen ze aan kwam lopen] sprong Peter op,*
 then 3SG.F PRT come:PAST.SG walk:INF jump:PAST.SG Peter up
die vrouw.
 DEM woman
 [intended] ‘When she came up to him, that woman, Peter jumped up.’

Since right-peripheral positioning involves the clause, it is predicted that both extraposition and dislocation can be sentence-medial when an embedded clause is not sentence-final. The examples in (50) form minimal pairs with (49); cf. De Vries (2013).

- (50) Clause-final, sentence-medial positioning, Dutch
- a. *[Dat Lotte een fiets __ bezit zonder achterlicht] beval-t me niet.*
 C Lotte a bike own:3SG without rear.light please-3SG 1SG:OBJ NEG
 ‘I don’t like that Lotte owns a bike without a back light.’
- b. *[Toen ze aan kwam lopen, die vrouw] sprong Peter op.*
 then 3SG.F PRT come:PAST.SG walk:INF DEM woman jump:PAST.SG Peter up
 ‘When she came up to him, that woman, Peter jumped up.’

Depending on the information structure, afterthoughts can be used somewhat more liberally. The following examples seem acceptable.

- (51) Afterthoughts violating clause-boundedness, Dutch (a), German (b)
- a. *[Dat ze zoiets zouden vinden] had niemand verwacht: een dinosaurusskelet!*
 C 3PL something.like.that MOD:PL find:INF AUX:PAST.SG nobody
 expect:PART INDEF dinosaur.skeleton
 ‘Nobody had expected that they would find anything like that: a dinosaur skeleton!’
- b. *[Jeder Pianist, der einen hat] kann sich glücklich schätzen: einen Steinway-Flügel!*
 every pianist REL:M.SG.NOM INDEF:M.SG.ACC own:3SG can:3SG REFL
 lucky estimate:INF INDEF:M.SG.ACC Steinway-grand.piano
 ‘Every pianist who owns one can call himself lucky: a Steinway grand!’

Peripheral constituents themselves are islands for extraction, as is shown in (52).

- (52) Peripheral material is an island for extraction, Dutch
- a. **Waar_i heb je een uitvoering ge-zien van t_i? (✓van t_i gezien)*
 where AUX:3SG 2SG INDEF performance GE-see:PART of
 [intended] ‘What did you see a performance of?’
- b. **Waar_i heb je iets leuks ge-zien een uitvoering van t_i?*
 where AUX:3SG 2SG something nice GE-see:PART INDEF performance of
 [intended] ‘You saw something a nice, a performance of what?’

This may not come as a surprise for right-dislocation, which is extra-clausal, but for extraposition it is a relevant fact to explain. Note, however, that right-extraposition does not only bleed other processes: Kluck and De Vries (2013) show that it can feed Right Node Raising (backward ellipsis).

An important question concerns the scope of right-peripheral constituents. It has turned out that any of the types discussed, fully reconstructs into the position of the correlate or the

gap in the host clause. Using binding dependencies, (53) shows that a subject of the host takes scope over object-related dislocated phrases. (See also De Vries 2014 for a discussion of reconstruction phenomena in complicated cases involving idiomatic expressions and generic readings.)

- (53) Scope-reconstruction of right-peripheral constituents, Dutch (a) and German (b)
- a. *Anne_i zag iemand in de spiegel: zichzelf_i!*
 Anne see:PAST.SG someone in DEF mirror REFL
 ‘Anne saw someone in the mirror: herself!’
- b. *Die hat doch jeder_i Vater gerne, seine_i Kinder!*
 DEM:PL have:3SG PRT every father with.pleasure POSS:M.PL children
 ‘Of course every father loves his children!’

In (54a), an element within a relative clause extraposed from a direct object position is under the scope of a quantified indirect object, but not vice versa (54b).

- (54) Scope-reconstruction of extraposed constituents, Dutch
- a. *Ik heb iedereen_i het verhaal verteld dat hij_i wilde horen.*
 1SG AUX:1SG everyone DEF.N story tell:PART REL.N 3SG.M want:PAST.SG
 hear:INF
 ‘I told everyone the story they wanted to hear.’
- b. **Ik heb die persoon elk_i verhaal verteld die het_i wilde horen.*
 1SG AUX:1SG DEM:N person every story tell:PART REL.NNTR 3SG.N
 want:PAST.SG hear:INF

Thus, extraposition or dislocation never enlarges the scope of the displaced constituent (see also Büring and Hartmann 1997; Inaba 2007, among others). Relatedly, there is case connectivity between a dislocated noun phrase and its correlate.

- (55) Case connectivity in reformulative dislocation constructions, German
- a. *Ich habe ihm ge-holfen, {dem/*der/*den} Peter.*
 1SG AUX:1SG 3SG.M.DAT GE-help:PART DEF:M.DAT/NOM/ACC Peter
 ‘I helped him, Peter.’
- b. *Lotte hat einen sportlichen Jungen kennengelernt: {den/*der} Kapitän der Fußballmannschaft!*
 Lotte AUX:3SG INDEF:M.ACC sporty:ACC boy.M:ACC met:PART
 DEF:M.ACC/NOM captain.M DEF:F.GEN football.team.F
 ‘Lotte met a sporty young man, the captain of the football team!’

Predicative afterthoughts, however, are invariably nominative, for independent reasons (cf. Ott and De Vries 2016 for discussion and further references).

- (56) Nominal secondary predicates are nominative, German
- Lotte hat mit dem Jan ge-sprochen, angeblich {ein Linguist / *einem Linguisten}.*
 Lotte AUX:3SG with DEF:M.DAT John GE-talk:PART apparently
 INDEF:M.NOM linguist.M INDEF:M.DAT linguist.M.DAT
 ‘Lotte spoke with John, apparently a linguist.’

Without a morphologically visible case distinction, and for subjects *sui generis*, a nominal afterthought may be ambiguous between a predicative interpretation and a reformulative or identificational one.

3.4 Theoretical Implications: Notes on Possible Analyses

In a generally right-branching structure of the clause as in (3), there does not seem to be any place for right-peripheral elements, with the exception of the complement position of the verb. This state of affairs contrasts with the left periphery, and it has puzzled researchers for decades. The symmetrical, descriptive picture in (1) breaks down when translated into a proper syntactic hierarchy.

Let us start the discussion with the (apparently) least problematic cases, which are inherent complements of V, namely prepositional objects and object clauses. At least since Koster (1975), it is generally assumed that Dutch and German are OV languages, which is descriptively correct for objects that are nominal complements. When this idea is applied to all complements of V, obligatory extraposition of clausal objects and optional PP-over-V is necessary (Evers 1975), but more or less difficult to explain in the absence of evidence for movement and the lack of an appropriate landing site other than ‘right-adjunction’. With Zwart (1993, 1994), Kayne (1994), and various others since, a new perspective on the matter arose: all complements are to the right, despite appearances, and it is regular nominal complements that are moved to the left of V. Given the general branching direction of the tree (with specifiers to the left) and independently attested phenomena such as scrambling, it seems a plausible way to go (see also Struik 2022 for a historical syntactic perspective). Note that this does not contradict the OV character of the language, it only implies that O in OV does not correspond to the first Merge position of the object. A third, less rigid way to proceed is to simply postulate that the languages involved have a hybrid system with some freedom in the OV/VO base (cf. Pintzuk 2005, based on Old English, or Haider 2010: Ch5, and Frey 2015 for German). A system involving some syntactic freedom could be parameterized based on syntactic category, possibly related to Case or theta role licensing. Alternatively, it could be that prosodic constraints at the PF interface determine which position is optimal. For instance, Féry (2105) argues that an embedded clause in the middle field creates a ‘monster’ that violates prosodic requirements (specifically, an intonation phrase inside a prosodic phrase is at odds with the Layeredness of the familiar prosodic hierarchy).

An entirely different perspective on object clauses is proposed in Koster (1999), based on parallel construal; see also De Vries (2010) and some related discussion below. The idea is that the peripheral clause specifies a pronoun that occupies the regular direct object position (wherever that is). This pronoun may or must be silent, depending on the verb. The factive verb *betreuren* ‘regret’ allows for both possibilities (silent or overt) in Dutch:

- (57) Parallel construal analysis of extraposition, Dutch
- a. *Ik heb (het) betreurd dat hij weg gaat.*
 1SG AUX:1SG 3SG.N regret:PART C 3SG.M away go:3SG
 ‘I regretted that he is leaving.’
 - b. *Ik heb [[(het) betreurd] : [dat hij weggaat]].*

The analysis suggests an analogy with backgrounding right-dislocation constructions, which is interesting but also potentially confusing.

Optional extraposition of PP and CP adverbials is a different matter. It is related to higher projections of the clause, such as the vP or TP layer, and other projections in the middle

field. Adjuncts are not selected in the way complements are, and the intra- and cross-linguistic variation in positioning seems to suggest that there is no inherent syntactic ordering to the left or right at the designated hierarchical level; hence, a set of superficial and parameterized linearization rules—triggered by pair-merge, perhaps—might determine the surface position of adverbials in each particular language. This is not to say that there are no hierarchical differences among adverbs. If, however, all adverbials are to be generated in lefthand specifier positions, complicated movements would be necessary to derive the surface word orders; see Barbiers (1995) and Cinque (1999), among others, for some concrete proposals.

Optional extraposition of modifiers (attributes, whether adjuncts or complements) is an even more intriguing phenomenon. Since they have a designated embedded base position, there needs to be a mechanism for displacement (in the theory-neutral sense of the word). At first sight, it is reasonable to investigate a rightward A'-movement approach (see Baltin 1983; Büring and Hartmann 1997, among others), even if the concept of optional movement to a right-adjoined position seems somewhat odd from a theoretical perspective. There is no obvious syntactic trigger, but semantic and/or prosodic factors may play a role; see shortly below. However, many examples, with (48a-b) as worst case scenarios, lead to serious problems, as they would require movement from embedded positions that is independently ungrammatical (which can be tested with leftward *wh*-movement from similar configurations).

An alternative approach to extraposition involves *stranding* of the modifier in a right-peripheral position (Kayne 1994): the entire constellation (modified XP + modifier) is base-generated in a position to the right of the verb, and the modified XP moves into the middle field (to the left), leaving the modifier behind. This approach fares even worse: it is now a non-constituent that needs to be moved to the left, which is simply impossible. In addition, it remains unexplained why stranding in the middle field, as in (47), is excluded. A somewhat improved version of the stranding approach involves partial deletion, as proposed by Wilder (1995): the entire construction moves, and the modifier is phonologically deleted in the middle field (this is leftward ellipsis comparable to right node raising), and the modified XP is deleted in the base position. A third approach with similarities to stranding involves the separate generation of the modified XP and the modifier (which is in the lowest position within a VP with different shells) without a movement connection; see Haider (1997). Somewhat differently, Culicover and Rochemont (1990) defend the idea of base-generated adjuncts.

Kaan (1993), Koster (2000), and others pointed out that there are more empirical problems for movement and stranding approaches. In (58), for example, it is shown that VP topicalization is possible, but a verb plus an extraposed constituent appears to be inert if the modified XP is excluded (58c), even though the object could be in the middle field (58d).

- (58) V+EX cannot be topicalized, Dutch
- a. *Linda heeft de man (niet) ge-sproken met de hoed.*
Linda AUX:3SG DEF man NEG GE-speak:PART with DEF hat
'Linda spoke with the man in the hat.'
 - b. [*De man gesproken met de hoed*] heeft Linda (niet).
 - c. * [*Gesproken met de hoed*] heeft Linda de man (niet).
 - d. *Gesproken heeft Linda de man met de hoed (niet).*

Such patterns are difficult to explain (in addition to mirror effects, binding at the base, etc., discussed in the previous subsections). Therefore, somewhat more recent approaches turn to the possibility of *specifying coordination* (or 'parallel construal'), which solves various of the earlier issues (and, as always, introduces some new ones; see further De Vries 2002: Ch7 for a systematic comparison of various theories of extraposition). Rijkhoek (1998) and Koster (2000) suggest that an extraposed phrase is structurally coordinated to the smallest constituent

containing the surface position of the anchor (the modified XP). For extraposition from direct object position this may be the VP, for extraposition from a subject, TP, etc. In order to solve the problem of unequal conjuncts, De Vries (2002, 2011) proposes to combine it with ellipsis, partly inspired by Wilder (1995). The second conjunct is then an elliptical repetition of the first, but with the added modifier in its regular position, which survives as a remnant. See also the discussion of right-dislocation shortly below.

From a syntactic perspective, extraposition of modifiers is optional. Nevertheless, it has been argued that extraposition can be favored or disfavored by information structural and/or prosodic demands; see for relevant discussion Guéron (1980), Truckenbrodt (1995), Inaba (2007), Hartmann (2013), and Féry (2015), among others. Thus, it seems that extra-syntactic factors may provide the actual reason (a trigger) for extraposition. In addition, prosodic constraints could limit the possibility of extraposition, in particular if there is a prosodically heavy intervener; see (59a), for instance. By contrast, if the antecedent phrase contains a heavy component such as a stressed determiner, extraposition across interveners is facilitated; see (59b).

(59) Prosodic effects on extraposition, Dutch

- a. *Eva heeft een collega (uit België) een mooi CADEAU
 Linda AUX:3SG INDEF colleague from Belgium INDEF nice gift
 ge-given (?? uit België).
 GE-give:PART from Belgium
 ‘Eva gave a colleague from Belgium a nice present.’*
- b. *Uitgerekend DIE man heeft Anna een mooi cadeau ge-given
 precisely DEM man AUX:3SG Anna INDEF nice gift GE-give:PART
 die zij onaardig vind-t.
 REL.NNTR 3SG.F unkind regard-3SG
 ‘That man of all people gave Anna a nice present who she doesn’t like.’*

Such considerations may lead to the idea that at least this kind of extraposition is not a syntactic operation at all, but involves a postsyntactic reordering process at the PF interface (Chomsky 1986: 40). However, that does not seem plausible for various reasons (apart from possible fundamental theoretical assumptions). The limited scope of such potential PF-movements—concretely, scrambling of prosodic ϕ - and ι -phrases—would only cover a part of all the facts related to the rich empirical domain involving the right periphery. Moreover, the influence of prosody on extraposition does not logically imply that the *mechanism* potentially creating the actual displacement is PF-movement of some kind. What does seem much more plausible is the idea that prosodic constraints at the interface are involved in the *choice* for a particular derivation (leading to a particular word order) made available by syntax. In fact, this is also the explicit or implicit standpoint in most of the cited works on the topic.

Finally, let us briefly address some syntactic ideas about right-dislocation. The theoretical development mentioned above concerning parallel construal in extraposition is important, whether ultimately correct or not, as it served as the foundation for later approaches to dislocation. Consider a simple example of backgrounding right-dislocation like (60a). The backgrounded disjunct *Jan* is clearly outside of the core sentence, but explicates the referent of the correlate *'m* ‘him’ in a more informative way. According to the analysis in (60b), detailed in Ott and De Vries (2016), the clause is repeated with the disjunct replacing the correlate; as such, the disjunct is the only part with relatively new information, and hence it survives clausal ellipsis.

(60) A specifying coordination + ellipsis approach to dislocation, Dutch

- a. *Ik heb 'm een boek ge-given, Jan.*
 1SG AUX:1SG 3SG:OBJ INDEF book GE-give:PART John
 ‘I gave him a book, John.’
- b. [*Ik heb 'm een boek gegeven*] : [~~*Ik heb Jan een boek gegeven*~~]

Similarly, reformulative and sprouting afterthoughts can be treated *not* as simple structural orphans in the sense of Haegeman, Shaer and Frey (2009) or Peterson (1999), but as clausal elliptical constructions that share properties with sluicing and fragment answers.

Notably, secondary predicative afterthoughts and dislocated predicative appositions and appositive relative clauses as in (42), cannot involve a full repetition of the host clause, but rather they constitute an elliptical predicative copular clause; see (61). This can be viewed as a generalization of earlier work on nominal appositions, including Heringa (2011) and Griffiths (2015); see also Onea and Ott (2022) for discussion.

(61) Secondary predicative disjuncts as elliptical copular clauses, German

- a. *Ich habe den Johann ge-sehen, ein Linguist gekleidet in Latzhosen.*
 1SG AUX:1SG DEF:M.ACC John GE-see:PART INDEF linguist dressed in dungarees
 ‘I have seen John, a linguist in dungarees.’
- b. [*Ich habe den Johann_i ge-sehen*] : [~~*er_i ist {ein Linguist, gekleidet in Latzhosen}*~~].
 1SG AUX:1SG DEF:M.ACC John GE-see:PART he is INDEF linguist dressed in dungarees

Thus, constructions involving right-dislocation fall under the larger umbrella of anchored parentheses. These cannot be considered in detail here, but see De Vries (to appear) for an elaborate overview and further references.

4 Conclusion

The Continental West Germanic languages provide a fertile ground for studying the structure of the clausal peripheries and the syntactic relations (movement or otherwise) between elements in the clausal peripheries and positions in the remainder of the clause.

The left periphery is marked by the verb-second effect, positioning the finite verb to the immediate right of the first constituent. There is some evidence for distinguishing separate positions for topics and *wh*-elements in the left periphery, but very little evidence for the full range of left-peripheral positions proposed by Rizzi (1997). In addition, there appears to be a position for even more peripheral elements that do not trigger the verb-second effect, i.e., left-dislocation.

The right periphery likewise shows a distinction between more and less canonical peripheral regions, involved in extraposition and right-dislocation (backgrounding or afterthought), respectively. Neither the structure of the right periphery nor the processes by which elements come to occupy these positions are fully understood, suggesting that the traditional tool kit for describing them (including rightward movement) may need to be replaced or enriched by others, involving conjunction and ellipsis.

An interesting question affecting both peripheries is to what extent the relevant processes and related licensing effects must be thought of as taking place within Narrow Syntax

(in the sense of Chomsky 2001). It seems likely that this is not exclusively the case. Both PF and LF interface effects need to be explored in more detail, that is, connections with prosody, morphological realization, information structure, etc. It would take us too far afield to discuss the relevant considerations in detail in this chapter, where only the most pertinent observations could be partially explored.

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