The syntax of Dutch gapping
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January 30, 2018

Abstract: This article takes as its point of departure Neijt’s (1979) claim that gapping is a rule of syntax with properties also found in *wh*-movement constructions. I will refine this proposal by concluding that gapping remnants are A’-moved into the clause-initial position (SpecCP) and/or the specifiers of functional projections such as TopP, FocP and NegP found in the middle field of the clause. I will further show that this approach sheds new light on various problems not satisfactorily solved in earlier approaches to gapping, such as the obligatory elision of finite verbs and complementizers and the distribution of focus and polarity particles.

1 Introduction

Neijt (1979) noted a correlation between *wh*-movement and gapping and concluded from this that gapping (contrary to backward conjunction reduction) is a rule of syntax; cf. §2. But she did not take the next logical step of assuming that *wh*-movement is actually involved in the derivation of gapping for reasons reviewed in §3. This section will also show that these reasons do not apply when we reformulate Neijt’s correlation in terms of the more general notion of A’-movement. I will hypothesize that gapping remnants are A’-moved into the clause-initial position (SpecCP) and/or the specifier positions of functional projections like TopP, FocP and NegP found in the middle field of the clause; see Broekhuis & Corver (2016:ch.13) for an extensive discussion of these A’-movement types. The discussion in §4 to §7 will show that the A’-movement hypothesis sheds new light on various problems not satisfactorily solved by earlier approaches to gapping, such as the obligatory elision of finite verbs and complementizers and the distribution of focus and polarity particles. Other A’-movement analyses of gapping can be found in Aelbrechts (2007) and Boone (2014) for Dutch, and Ai (2014) for Mandarin, which, however, differ from the present proposal in that they assume some form of “exceptional movement”. This article focuses on Dutch gapping but I provisionally assume that gapping in other languages can also be accounted for in terms of A’-movement, albeit that it may come in different guises like English-type topicalization and heavy NP shift (which may account for the fact that gapping constructions allow for less remnants in English than, e.g., in Dutch); see Johnson (2017:§4) for a proposal heading in that direction.

2 Gapping and *wh*-movement

Gapping is a forward reduction process that prototypically applies in clausal coordinate structures with the coordinator *en* ‘and’, *of* ‘or’ or *maar* ‘but’, which deletes non-contrastive elements in the target clause of gapping on the basis of some corresponding element in the antecedent clause; see Broekhuis & Corver (In prep.) for a more detailed and precise description of gapping. Neijt (1979) considers the two generalizations in (1) to account for the description of the distribution of the gapping remnants.
(1)  a. **Clausemate restriction on gapping** (Hankamer 1971):
Remnants of gapping are major phrases of the target clause.

b. **Wh-movement correlation restriction on gapping** (Neijt 1979):
Remnants of gapping can undergo wh-movement in non-reduced clauses.

The clausemate restriction in (1a) represents the standard view at the time that Neijt wrote her study. It states that gapping remnants are clausal constituents of the target clause, as in (2), or smaller (lexical) verbal projections, which I will refer to as VP for convenience, as in (3).

(2)  
- **Clausal constituents (= argument, predicate or adverbial modifier of the clause)**
  a. [[[JAN las een BOEK] en [MARIE las een ARTIKEL]].
   Jan read a book and Marie read an article
  b. [[[De ROMAN is SAAI] maar [de FILM is SPANNEND]].
   the novel is boring but the movie is thrilling
  c. [[[JAN leest het artikel VANDAAG] en [PETER leest het artikel MORGEN]].
   Jan reads the article today and Peter reads the article tomorrow.

(3)  
- **Lexical verbal projections (VPs)**
  a. [[[JAN heeft [VP een BOEK gelezen]] en [ELS heeft [VP een FILM bekeken]].
   Jan has a book read and Els has a movie watched
   ‘Jan has read a book and Marie has watched a movie.’
  b. [[[JAN wil [VP een BOEK lezen]] en [ELS wil [VP een FILM bekijken]].
   Jan wants a book read and Els wants a movie watch
   ‘Jan wants to read a book and Els wants to watch a movie.’

The clausemate restriction comes close to the mark but there are also problematic cases. Example (4a) is a case in which one of the remnants functions as the PP-complement of an adjective, which is prohibited by the clausemate restriction. It is, however, in agreement with the wh-movement correlation restriction in (1b), as is illustrated in (4b) by showing that the PP-complement of boos ‘angry’ is able to undergo wh-movement.

(4)  
- [[[JAN is [erg boos [op MARIE]]] en [ELS is [erg boos [op PETER]].]
   Jan is very angry with Marie and Els is very angry with Peter
   ‘Jan is very angry of Marie and Els is very angry of Peter.’
  b. [[[Op wie] is Els [erg boos i]].
   of who is Els very angry
   ‘Who is Els very angry with?’

That the wh-movement correlation restriction is superior to the clausemate restriction is also clear from the examples in (5). Example (5a) first shows that degree modifiers of adjectives cannot occur as remnants of gapping, which is in agreement with both restrictions: the degree modifier *erg* is not a clausal constituent in the sense defined in (2) and it cannot be wh-moved either. Example (5b), on the other hand, shows that nominal measure phrases functioning as modifiers of an adjective, can occur as gapping remnants. This is not in agreement with the clausemate restriction because such measure phrases are not clausal constituents, but it is in agreement with the wh-movement correlation restriction, as is clear from the fact illustrated in (5b’): that such phrases can be wh-moved; cf. Zwarts (1978:327), Neijt (1979) and Corver (1990).
The syntax of Dutch gapping

Neijt correctly concluded from the superiority of the wh-movement correlation restriction that gapping is a rule of syntax, but she did not take the next logical step of assuming that wh-movement is actually involved in the derivation of gapping for reasons that will be reviewed in §3.

3 Gapping and A'-movement

The discussion in §2 has side-stepped one important problem for the wh-movement correlation restriction, namely the fact that clausal constituents can be whmoved from finite embedded clauses. For what follows, it is important to realize that such wh-extraction does not apply in one fell swoop but proceeds via an intermediate position in the left-periphery of the embedded clause (SpecCP), which can function as an escape hatch in so-called “bridge” contexts. This is indicated by means of the intermediate trace $t'_{i}$ in the primeless examples in (6). That wh-extraction crucially relies on the availability of the escape hatch is normally motivated by the fact that it cannot apply from embedded wh-questions: because the escape hatch in the primed examples in (6) is already filled by the wh-pronoun wie ‘who’, their unacceptability under the intended interpretation shows that extracting the object/adverbial phrase from the embedded clause in one fell swoop is not allowed. Note that “Ø” indicates the phonetically empty complementizer normally found in embedded wh-questions.

Because wh-extraction in (6a&b) is possible, the wh-movement correlation restriction predicts that gapping should also be possible, but this seems to be incorrect, as examples such as given in (7) are normally ranked as degraded; cf. Neijt (1979:143). I use a percentage sign here (and not an asterisk) for reasons that will become clear shortly.
Neijt (1979:141-5) explains the acceptability contrast between the wh-examples in (6) and the corresponding gapping examples in (7) by appealing to the fact that the escape hatch in the left periphery of the embedded clause is relevant for movement only, but this raises the question as to why gapping exhibits so many other properties of wh-movement. The reason for this is that the relevant properties of gapping are not typical for wh-movement constructions only but for a wider class of A′-movement constructions derived by A′-scrambling (that is, topic, focus and negation movement), which were not yet identified at the time that Neijt wrote her study. I therefore replace Neijt’s wh-movement correlation restriction by the A′-movement correlation restriction in (8b).

(8)  a. **Wh-movement correlation restriction on gapping** (Neijt 1979):
Remnants of gapping can undergo wh-movement in non-reduced clauses.

b. **A′-movement correlation restriction on gapping** (revised version):
Remnants of gapping can undergo A′-movement (wh-movement or A′-scrambling) in non-reduced clauses.

Assume for the moment that gapping remnants undergo focus/topic-movement in the prototypical case, which can of course be independently motivated by the fact that they are normally contrastively accented. This assumption may explain the acceptability contrast between the wh-examples in (6) and the corresponding gapping examples in (7) in a very elegant manner, as the examples in (9) show that extracting a contrastive focus/topic phrase from its clause normally gives rise to a degraded result: focus/topic movement apparently differs from wh-movement in that it cannot proceed via the escape hatch (SpecCP).

(9)  a. "Ik had [in de **TUIN**], gedacht [dat het feest t₁ zou zijn].
'I had in the garden thought that the party would be in the GARDEN.'

b. "Ik had [een **BOEK**], gedacht [dat Jan t₁ zou kopen].
'I had a book thought that Jan would buy a BOOK.'
If gapping remnants undergo focus/topic movement in the prototypical case, we predict a similar contrast in the case of gapping. This can be tested by comparing the gapping examples in (7) to those in (11), which show that a similar contrast can indeed be found: the examples in (7) are less marked and easier to interpret in the intended sense than those in (11).

(11) a. *[[ELS betreurt [CP dat je een BOEK hebt gekocht]] et
Els regrets that you a book have bought and
[MARIE betreurt [CP dat je een CD hebt gekocht]]].
Marie regrets that you a CD have bought

b. *[[ELS betreurt [CP dat je VANDAAG komt]] en
Els regrets that you today comes and
[MARIE betreurt [CP dat je MORGEN komt]]].
Marie regrets that you tomorrow comes

If the judgments given above are correct, it would support the claim that there is not only a correlation between focus/topic movement and gapping but that this type of A’-movement is actually involved in the derivation of gapping. This leads to the hypothesis formulated in (12).

(12) **A’-movement hypothesis:**
Remnants of gapping undergo A’-movement.

Hypothesis (12) entails that gapping elides all material that is not located in a designated A’-position, such as the specifier positions of the topic/focus projections. It thus revives earlier proposals stating that gapping constructions involve the listing of contrastively accentuated constituents; cf. Dik (1968), Van der Heijden & Klein (1995) and Bart et al. (1998). The main difference from at least some of these earlier proposals is that I do not claim that we are dealing with a mere *list*, but that we can maintain that the gapping remnants are syntactically integrated in a regular clausal structure.

The set of designated A’-positions include at least the following: the clause-initial position (SpecCP) and the specifier positions of the topic, focus and negation projections in the middle field of the clause, that is, various SpecXPs in the area in between the complementizer/verb-second position C and the clause-final verb position in (13). We refer the to Broekhuis & Corver (2016:ch.13) for detailed discussion.

Because the set of relevant A’-positions is finite, the A’-movement hypothesis can perhaps also account for the observation that gapping constructions such as (14) with three remnants are fully acceptable but that the result of gapping quickly degrades when the number of remnants increases: contrastive focus/topic phrases, for instance, can only
be moved into the specifier of CP (that is, the clause-initial position) and the specifiers of TopicP and FocusP located in the middle field of the clause.

(14) a. [[MARIE gaf het BOEK aan JAN]] en [PETER gaf de CD aan ELS]].
    ‘Jan gave the book to Marie and Peter gave the CD to Els.’

b. [[ELS legde het BOEK op TAFEL] en [JAN legde de KRANT op de BANK]].
    ‘Els put the book on the table and Jan put the newspaper on the couch.’

This means that we can readily accommodate the examples in (14), but that it remains to be seen whether this also holds true for cases with more than three or four remnants. I believe this to be a virtue of the A’-movement hypothesis.

4 Verbal-head restriction on gapping

A nice result of the A’-movement hypothesis is that it immediately explains one of the core properties of gapping, embodied in the finite verb restriction on gapping in (15), namely that the finite verb must be elided: A’-movement is restricted to phrases and thus cannot target the finite verb of the clause, which is not a phrase but a head.

(15) Finite-verb restriction on gapping:
    Gapping elides the finite verb of its target clause.

The finding that the obligatory elision of the finite verb follows from the A’-movement hypothesis in (12) is significant as it entails that gapping may in principle also apply in the absence of a finite verb, as long as there are designated A’-positions available. This accounts for the fact that gapping can also occur in infinitival clauses, that is, clauses without a finite verb. This is illustrated by means of example (16) adapted from Haeseryn et al. (1997:1597), in which the infinitival clauses function as adverbial phrases indicating goals.

(16) Jan ging weg [[om bij de BAKKER BROOD te halen] en COMP at the bakery bread to fetch and
    Jan went away COMP]
    [om bij de APOTHEKER ASPIRINES te halen]].
    COMP at the apothecary aspirins to fetch
    ‘Jan left to buy bread at the bakery and aspirins at the pharmacy.’

The A’-movement hypothesis also provides an explanation for the fact illustrated in (17) that gapping targeting embedded clauses must elide the complementizer; cf. De Vries (1992:ch.3). This follows in the same way as the obligatory elision of the finite verb: A’-movement is restricted to phrases and thus cannot target the complementizer of the clause, because complementizers are not phrases but heads.

(17) a. Jan vertelde [[dat ELS ZIEK is] en [dat/ dat MARIE AFWEZIG is]].
    Jan told that Els ill is and that/that Marie absent is
    ‘Jan said that Els is ill and Marie absent.’

b. Jan heeft beloofd [[om NU de DEUR te verven] en COMP now the door to paint and
    Jan has promised COMP]
    [om/om MORGEN de VLOER te verven]].
    COMP/COMP tomorrow the floor to paint
    ‘Jan has promised to paint the door now and the floor tomorrow.’
We may therefore conclude that the A’-movement hypothesis is supported by the fact that it simplifies the linguistic description by making the postulation of restrictions of the type in (15) and (18) superfluous.

(18) **Verbal-head restriction on gapping**: Gapping elides all functional and lexical heads with verbal features (C, T and V\textsubscript{finite}) of its target clause.

5 **Interrogative, topicalized and negative phrases**

The A’-movement hypothesis predicts that elements occupying a designated A’-position can occur as gapping remnants. The examples in (19) show that this correctly predicts that wh-phrases, which prototypically occupy the clause-initial position, can occur as gapping remnants.

(19) a. [[WIE las het BOEK] en [WIE las het ARTIKEL]]?
   who read the book and who read the article
   ‘Who read the book and who read the article?’

   b. [[WAT las JAN] en [WAT las ELS]]?
   what read Jan and what read Els
   ‘What did Jan read and what Els?’

   The A’-movement hypothesis also correctly predicts that topicalized phrases can survive gapping; cf. (20). Observe that the order of the gapping remnants and their correlates can be reversed in this construction; see, e.g., Van Oirschot (1987:262) and Cremers (1993:102-3). Similar non-parallel examples are not easy to construct for interrogatives for two reasons: (i) coordinated wh-clauses such as (19a&b) always have a parallel word order because wh-movement of interrogative phrases is obligatory; (ii) examples such as ‘Marie heeft Jan vandaag ontmoet en wanneer Els?’ (lit.: Marie met Jan today and when Peter?)’ are marked for the independent reason that declarative and interrogative clauses cannot easily be coordinated.

(20) a. [[VANDAAG heb ik JAN ontmoet] en [GISTEREN heb ik ELS ontmoet]].
   today have I Jan met and yesterday have I Els met
   ‘Today I met Jan and yesterday Els.’

   b. [[VANDAAG heb ik JAN ontmoet] en [ELS heb ik GISTEREN ontmoet]].
   today have I Jan met and Els have I yesterday met
   ‘Today I met Jan and Els yesterday.’

   c. [[Ik heb VANDAAG JAN ontmoet] en [GISTEREN heb ik ELS ontmoet]].
   I have today Jan met and yesterday have I Els met
   ‘I met Jan earlier today and yesterday Els.’

   The examples in (21) show that we also correctly predict that negative phrases expressing clausal negation may occur as remnants, as they occupy the specifier of NegP. More can be said about negation, but this will be done in §6 and §7.

(21) a. [[Jan kreeg alles wat hij wou] en/maar [Marie kreeg niets]].
   Jan got everything which he wanted and/but Marie got nothing
   ‘Jan got everything he wanted, and/but Marie got nothing.’

   b. [[Jan gaat vaak op vakantie] en/maar [Marie gaat nooit op vakantie].
   Jan goes often on holiday and/but Marie never on holiday
   ‘Jan goes on holiday often, and/but Marie never.’
6 Focus particles

Although the remnants of gapping should normally have a correlate in the antecedent clause, there are two notable exceptions to this general rule. The examples in (22) show that focus particles such as ook ‘also’ and the adverb niet ‘not’ functioning as constituent negation can occur in the target clause without having (an overt) correlate in the antecedent clause; cf., e.g., Van der Heijden & Klein (1995:33).

(22) a. [[JAN houdt van MARIE] en [MARIE houdt ook van JAN]].
   Jan loves of Marie but Marie loves also of Jan
   ‘Jan loves Marie and Marie loves Jan too.’

   b. [[JAN houdt van MARIE] maar [MARIE houdt niet van JAN]].
   Jan loves of Marie but Marie loves not of Jan
   ‘Jan loves Marie but Marie doesn’t love Jan.’

The examples in (23) show that focus particles such ook ‘also’ are obligatorily located in the designated focus position: the particle ook can occupy this position together with its contrastively accented associate op HEM but it may also occupy this position alone, with its associate stranded in its base position. Crucially, what is impossible is having the particle in the base position of its associate; see Broekhuis & Corver (2016:§13.3.2) for a more detailed discussion.

(23) a. dat Jan <ook op HEM> boos <*ook op HEM> is.
   that Jan also at him angry is
   ‘that Jan is also angry with him.’

   b. dat Jan ook boos op HEM is.
   that Jan also angry at him is

Because focus particles such ook ‘also’ obligatorily occupy a designated focus position, the A’-movement hypothesis from §2 now predicts that gapping examples such as (22a) with the particle ook ‘also’ are also acceptable; the particle occupies a designated A’-position, and hence survives elision. The fact illustrated in (22b) that the negative adverb niet ‘not’ may also be present is in accordance with the finding in Broekhuis & Corver (2016:§13.3.2, sub I) that this adverb functions as a focus particle when it is used to express constituent negation.

I conclude this subsection by noting that the distribution of focus particles supports Neijt’s (1979) claim that so-called split coordination is derived by means of a gapping-like operation (also known as stripping), as the examples in (24) show that focus particles may occur in such examples; see also Kraak & Klooster (1972:§11.2).

(24) a. [[JAN heeft met Marie gepraat] en [ELS heeft ook met Marie gepraat]].
   Jan has with Marie talked and Els has also with Marie talked
   ‘Jan has talked with Marie, and Els has too.’

   b. [[Jan heeft met MARIE gepraat] en [Jan heeft ook met PETER gepraat]].
   Jan has with Marie talked and Jan has also with Peter talked
   ‘Jan has talked with Marie, and with Peter too.’

This suggests that the distribution of focus particles can be used as a heuristic tool for finding a wider set of ellipsis constructions that can be subsumed under the A’-movement hypothesis in (12). One potentially relevant case would be the specifying coordination construction with the contrastive affirmative marker wel illustrated in (25), which is denied an elision analysis in Van der Heijden & Klein (1995:33). Such an
analysis would, however, be rather straightforward under the plausible assumption that \textit{wel} is a discourse particle which can be located in clause-initial position: cf. \[['Ik zie je niet meer], \textit{maar [wel zal ik je schrijven]}' 'I won't see you anymore but I will write to you'. I will not digress on this issue here, but leave it for future research.

(25) a. \[Jan \text{ gaf Els iets en [wel gaf Jan Els een BOEK].}\]
Jan gave Els something and \textit{AFF.} gave Jan Els a book

`Jan gave Els something, namely, a book.'

b. \[Iemand \text{ gaf Els iets en [wel gaf Jan Els een BOEK].}\]

'someone gave Els something and \textit{AFF.} gave Jan Els a book

`Someone gave Els something, namely, Jan gave her a book.'

7 Elision of the negative marker \textit{niet} 'not' is impossible

The \textit{A'}-movement hypothesis entails that elements that \textit{must} occupy a designated \textit{A'}-position survive gapping; they do not even delete when they have an identical correlate in the antecedent clause. That this is indeed what we find can be illustrated by the negative clauses in (26), adapted from Van der Heijden & Klein (1995:33): see also, e.g., Neijt (1979:66) and De Vries (1992:§3.9). While the traditional view that gapping deletes material in the target clause under identity with material in the antecedent clause wrongly predicts (26b) to be acceptable with the intended reading, the alternative proposal that material occupying a designated \textit{A'}-position must survive deletion correctly predicts that the negative particle \textit{niet} 'not' must be overtly realized, as indicated in (26c).

(26) a. \[\[[Jan \text{ heeft Els niet gezien}] en [Peter heeft Marie niet gezien]].\]
Jan has Els not seen and Peter has Marie not seen

`Jan hasn’t seen Els and Peter hasn’t seen Marie.'

b. *\[\[[Jan \text{ heeft Els niet gezien}] en [PETER heeft MARIE niet gezien]].\]

`Jan has Els not seen and Peter has Marie not seen

A quirk that should perhaps be mentioned is that the affirmative particle \textit{wel} differs from the negative particle \textit{niet} in that at least some speakers allow omission of the affirmative marker in gapping constructions such as (27a) with the adversative coordinator \textit{maar} (but not with the simple conjunction \textit{en} 'and'); cf. Van der Heijden & Klein (1995:37). The relative acceptability of examples of this kind does not seem to be related to gapping as such, however, but to the fact that the affirmative marker has a zero form, which is the default in non-contrastive contexts but can also be used (at least marginally) in contrastive contexts; in this respect, the gapping construction in (27a) behaves just like its non-reduced counterpart in (27b).

(27) a. \[\[[\text{Jan heeft Els niet gezien}] maar [PETER heeft MARIE \textit{wel} gezien]].\]
Jan has Els not seen but Peter has Marie \textit{AFF} seen

`Jan has not seen Els but Peter has seen Marie.'

b. \[\[[\text{Jan heeft Els niet gezien}] maar [PETER heeft Marie \textit{wel} gezien]].\]

`Jan has Els not seen but Peter has Marie \textit{AFF} seen

`Jan hasn’t seen Els but Peter has seen Marie.'

Note further that the examples with and without the overt affirmative marker \textit{wel} may exhibit a subtle difference in meaning: the examples without \textit{wel} seem to replace the false proposition \textit{Jan heeft Els gezien} by the alternative true proposition \textit{Peter heeft...}
Marie gezien, while the examples with wel seem to evaluate the truth values of two independent propositions. Note that negation must be used in contrastive constructions such as (28), which is of course expected because the negative form does not have a zero counterpart; this example also lacks the proposition-substitution reading.

(28) [[JAN heeft ELS wel gezien] maar [PETER heeft MARIE *(niet) gezien]].

‘Jan HAS seen Els, but Peter did not see Marie.’

8 Concluding remarks

The A’-movement hypothesis of gapping in (12) seems promising in that it accounts without further ado for the fact that gapping always targets clauses and must minimally elide the finite verb and the complementizer of the target clause (if present). It also accounts for the well-known properties of the remnants of gapping that they must be able to undergo A’-movement in non-reduced clauses and be contrastively accented. A further argument in favor of the A’-movement hypothesis is that it sheds new light on the fact that focus markers such as ook ‘also’ may occur as gapping remnants without there being a correlate in the antecedent clause as well as on the fact that the polarity marker niet ‘not’ cannot be elided, not even if niet is present in the antecedent clause. The A’-movement analysis of Dutch gapping proposed in this article differs from earlier A’-movement approaches such as found in Aelbrechts (2007) and Boone (2014) in that the remnants of gapping are located in independently motivated A’-positions and that it is not needed to postulate any form of “exceptional movement”. The A’-movement analysis proposed in this article is not compatible with the standard view since the seminal work in Merchant (2001) that ellipsis targets some extended verbal projection that is evacuated by the remnants; the conclusion of this article suggests that the proper question to be asked is not what part of the structure is deleted? but what part of the structure is spelled out phonetically? Due to space limitations, this issue has to be discussed at some other occasion.

Acknowledgments: Frits Beukema and Norbert Corver have helped me in various ways to improve an earlier version of this article.

References


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