

ba, bonne, and V2 in Old and Middle English

LAGB meeting, Oxford, 6.9.2003
Carola Trips & Eric Fuss
Universities of Stuttgart and Frankfurt

1. Introduction: V2 in Old English

- Well-known fact: Old English (OE) main clauses exhibit word order patterns reminiscent of the Modern Germanic V2 languages, i.e. the finite verb occupies the second position after a fronted XP, leading to subject-verb inversion (examples taken from Trips 2002:231):
 - (1) a. *object-V_{fin}-subject*
[Ðæt hus] **hæfdon** *Romane* to ðæm anum tacne geworht ...
that house had Romans to the one sign made
'The Romans had made that house to their sole sign.'
(Orosius, Or_3:5.59.3.1042)
 - b. *PP-V_{fin}-subject*
[On þysse dune ufanweardre] **bæd** *Sanctus Albanus* fram Gode ...
on this hill higher up bade Saint Alban from God
'On this hill higher up Saint Alban asked from God ...'
(Bede, Bede_1:7.38.30.323)
 - c. *adverb-V_{fin}-subject*
[Uneaðe] **mæg** *mon* to geleafsuman gesecgan ...
Hardly may man to faithful speak
'Hardly may man speak to the faithful ...'
(Orosius, Or_3:9.70.16.1292)
- However, there are systematic deviations from V2 that led many researchers to assume that the clause structure of OE differs considerably from that of the present day Germanic V2 languages (cf. e.g. Cardinaletti & Roberts 1991; Pintzuk 1993, 1999; Hulk and van Kemenade 1995; Kemenade 1997, 1999; Kroch & Taylor 1997; Haeberli 1999, Fischer et al. 2000).
- Pronoun placement: in clauses with a fronted non-operator, subject pronouns intervene between the clause-initial XP and the finite verb, giving rise to V3 order:
 - (2) a. [Æfter his gebede] *he* **ahof** þæt cild up.
after his prayer he lifted the child up
'After his prayer, he lifted the child up.'
(AHth, II, 28; Kemenade 1987:110)
 - b. [þas þing] *we* **habbaþ** be him gewritene.
these things we have about him written
'These things we have written about him.'
(PC, 1087, 143; Kemenade 1987:110)

- On the assumption that the pronouns occupy a fixed position at the left edge of IP, such examples can be taken to indicate that the finite verb has not moved to C (in contrast to the present day V2 languages), but stays behind in a lower functional head (Pintzuk 1993, 1999: Infl; Cardinaletti & Roberts 1991: Agr1; Kroch & Taylor 1997: Agrs)

(3) [CP *Æfter his gebede* [IP *he_i* [Γ **ahof** [VP *t_i þæt cild up*]]]]
 after his prayer he lifted the child up
 ‘After his prayer, he lifted the child up.’
 (AHth, II, 28; Kemenade 1987:110)

- Accordingly, V2 patterns such as in (1), involving inversion of a full DP subject and the finite verb, can be derived from a configuration where the finite verb occupies Infl and the subject stays behind in its theta-position (SpecVP/SpecvP) (cf. Pintzuk 1999, Haeberli 1999, Fischer et al. 2000 for arguments that pron. subjects occupy a higher position than full DP subjects):

(4) [CP *Þæt hus* [IP \emptyset [Γ **hæfdon** [VP *Romane to ðæm anum tacne geworht*]]]]
 that house had Romans to the one sign made
 ‘The Romans had made that house to their sole sign.’
 (Orosius, Or_3:5.59.3.1042)

- However, strict V2 order is observed if the fronted element is an operator such as a wh-phrase as in (5) or the negation *ne* as in (6). Here, the pronoun invariably follows the finite verb.

(5) a. *Hwæt sculon we þæs nu ma secgan?*
 what shall we afterwards now more speak
 ‘What shall we afterwards speak now more?’
 (Bede, Bede_2:9.132.1.1253)

b. *hu wurð he elles gelæred?*
 how was he otherwise taught
 ‘How was he taught otherwise?’
 (Bede, BedePref:2.11.153)

(6) a. *ne bið he lengra þonne syfan elna lang.*
 NEG is he longer than seven ells long
 ‘He is not taller than seven ells.’
 (Orosius, :1.15.2.149)

b. *Ne meaht þu deman Gallia biscopas buton heora agenre*
 NEG might you judge Gaul's bishops but their own
 aldorlicnesse, ...
 authority
 ‘You might not judge the Gaul's bishops but their own authority.’
 (Bede, Bede_1:16.74.5.679)

- On the assumption that the pronoun occupies the same position as in the examples in (2) (left edge of IP), its post-verbal position is commonly taken to

indicate that the finite moves to C^0 in these examples, crossing the pronoun and leading to obligatory V2 order (due to the Wh/Neg-criterion, Rizzi 1996):

(7) $[_{CP} hu [_{C'} \text{wurð}_i + C^0 [_{IP} he [_{I'} t_i'] [_{VP} elles \text{gelæred } t_i]]]]]] ?$

- However, there is another context where strict V2 order is observed: subject-verb inversion is obligatory (with all kinds of subjects) if the clause-initial position is occupied by the temporal adverbs *þa*, *þonne* ‘then’ (cf. Mitchell 1985, Kemenade 1987, Kroch & Taylor 1997, Pintzuk 1999):¹

(8) *Ða for he norþryhte be þæm lande;*
 then went *he* northwards to that land
 ‘Then he went northwards to that land.’
 (Orosius,:1.14.7.128)

(9) *Ðonne ærnað hy ealle toward þæm feo;*
 then run-to they all towards the treasure
 ‘Then they all ran towards the treasure.’
 (Orosius,:1.17.21.233)

- Problem: no convincing explanation of this restriction on V3 orders up to now.
- Tomaselli (1995) (citing Stockwell 1977): *þa*, *þonne* are clause-external conjunctions (similar to coordinating ‘and’ or ‘but’) that select V1-clauses.
- However, most generative work on OE follows Kemenade (1987), where *þa* and *þonne* are analyzed as operators that trigger V-to-C movement, on a par with wh-phrases and negation.
- Both analyses can be shown to be problematic.
- This paper presents a new approach to the syntactic behaviour of these temporal adverbs based on the distribution of temporal adverbs and subject pronouns in preverbal position.

Basic claims: (i) In OE, the preverbal placement of subject pronouns and *þa*, *þonne* is a case of complementary distribution.
 (ii) This is taken to suggest that both types of elements compete for the same structural position, which we identify as SpecTP.
 (iii) The adverbs *þa*, *þonne* are analyzed as temporal anaphora that enter into a Spec-head relation with the finite verb located in T^0 , giving rise to V2 patterns.

¹ V2 order can also be observed with other temporal adverbs such as *nu* ‘now’, cf.

(i) *Nu hæbbe we ymb Affrica landgemæro gesæd.*
 now have we about Africa's boundary said
 ‘Now we have spoken about Africa’s boundary.’
 (Orosius,:1.20.25.302)

However, V2 order is much less regular with *nu* than with *þa* and *þonne* (cf. Mitchell & Robinson 1988:69; similar facts hold w.r.t. *þær*, *þider*, *þanon*, *swa* and *þeah*). For this reason, this paper focuses on V2 patterns with *þa* and *þonne*.

- The paper is organized as follows: section 2 discusses a set of problems for previous accounts of the phenomenon in question. Section 3 develops an alternative analysis of *þa*+V2, where it is proposed that *þa*, *þonne* are inserted in SpecTP, thereby blocking movement of the subject pronoun to this position. Section 4 discusses the diachronic developments that affected the syntax of ‘then’ in the Middle English (ME) period, linking the loss of ‘then’+V2 to the independent development of an EPP feature in T.

2. A critical survey of previous accounts

The conjunction analysis (Tomaselli 1995)

- (i) Lack of independent motivation: Stockwell (1977:311, n. 2) already criticizes that this analysis lumps together V1 patterns and V2 patterns “without presenting any argument to support the conflation of these two patterns.”
 - (ii) Another XP precedes *þa/þonne*: *þa*, *þonne* can be preceded by material that belongs to the clause putatively selected by these elements, as shown in (10) (here a fronted full subject). This is not expected if *þa*, *þonne* are analyzed as clause-external (coordinating) conjunctions.
- (10) *Englas þonne habbað gewiss andgit.*
 Angels then have certain intelligence
 ‘Then Angels have a certain intelligence.’
 (Boeth,Bo:41.146.10.2928)

The operator analysis (Kemenade 1987)

- (i) Stipulative character: the only motivation for the assumption that *þa*, *þonne* are operators comes from the word order facts the assumption is devised to account for.
 - (ii) Typologically unfounded: cross-linguistically, it is rather unusual that temporal adverbs pattern with operators such as wh-phrases w.r.t. syntax
 - (iii) The lack of V2 effects with ‘then’ in Modern English: it is a well-known fact that fronted operators such as wh-phrases and negation continue to trigger V2 (with finite auxiliaries) in Modern English (so-called ‘residual V2’), cf. Green (1980).
- (11) Who **has** *Joanna/she* seen?
- (12) Never in his life **would** *Harry/he* vote for Bush.

If the temporal adverbs in question are operators, one would expect *then*, the present day equivalent of OE *þa*, *þonne* to trigger V2 as well. But this is not the case: *then* fails to trigger V-to-C movement, despite the fact that Mod. English has preserved this operation in other operator contexts, cf.

- (13) a. *Then **will** *Harry/he* read that book.²
 b. Then *Harry/he* **will** read that book.

Here, one might argue that the descendants of OE *þa, þonne* lost their operator status and with it the ability to trigger verb movement. This, however, should lead us to expect a dramatic change in the semantics of ‘then’ which is again not borne out by the facts.³

3. An alternative approach

Basic assumptions (Fuss & Trips 2002, Fuss to app.)

- (i) ‘Minimalist’ clause structure (Chomsky 1995): CP–TP–vP–VP
 (ii) Position of the finite verb: in main clauses of OE, the finite verb moves to C⁰ only in operator contexts (cf. (7) above). In clauses with a fronted non-operator, the verb does not move further than T⁰.
 (iii) Position of full DP subjects: T carries no EPP feature in OE. Thus, full subject DPs remain in their theta-position (SpecvP; cf. Chomsky 1995, Kratzer 1996) in the overt syntax. In combination with (i), this accounts for the frequent V2 patterns found in OE with full DP subjects, cf. (14).
 (iv) Position of pron. subjects: pronouns can move overtly to SpecTP, due to their reduced morpho-syntactical feature content (by assumption, pronouns consist of nothing but formal features, i.e. [D, Case, φ]). If a pronoun is attracted by the set of φ-features of T, then all its formal features are pied-piped in the course of Move F (Chomsky 1995), leaving no features behind in its base position. Following Roberts (1998), we assume that this has the effect that the pronoun must be spelled out at the head position of its movement chain, SpecTP (cf. Fuss to app. for details), giving rise to V3 orders with fronted non-operators, cf. (15).

- (14) *object – V_{fin} – subject*
 [CP *Þæt hus* [TP \emptyset [T **hæfdon** [vP *Romane to ðæm anum tacne geworht*]]]]
 that house had Romans to the one sign made
 ‘The Romans had made that house to their sole sign.’
 (Orosius, Or_3:5.59.3.1042)

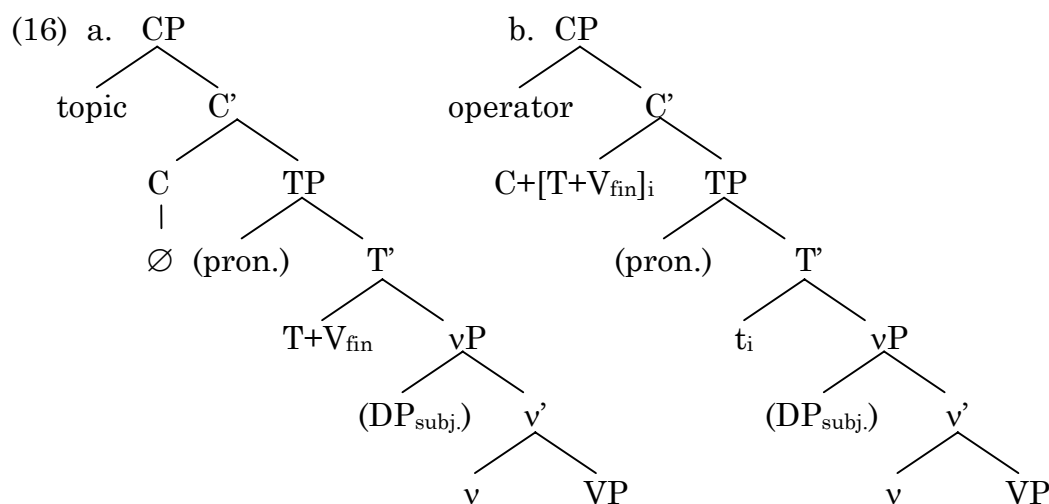
- (15) *PP – subject pronoun – V_{fin}*
 [CP *Æfter his gebede* [TP *he*_i [T **ahof** [vP *t_i þæt cild up*]]]]
 after his prayer he lifted the child up
 ‘After his prayer, he lifted the child up.’
 (AHth, II, 28; Kemenade 1987:110)

² However, Thompson (1999) claims that *then* can occupy the clause-initial position of yes/no questions, giving rise to apparent V2 patterns, cf.

(i) Then did he go home?

Note that examples such as (i) differ significantly from the OE V2 clauses with *þa, þonne*, since it is not the presence of *then* that triggers V-to-C movement, but rather the existence of a question operator.

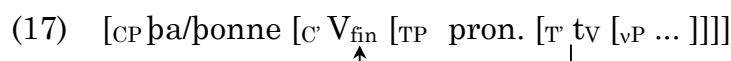
³ Note that *þa, þonne* receive an interpretation similar to Mod. English *then* in the contexts where they trigger V2 (Kroch & Taylor 1997:303).



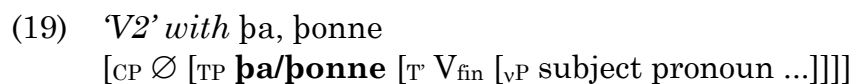
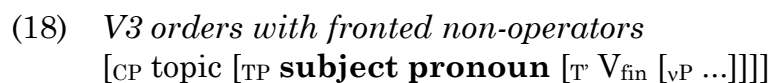
- This approach to OE makes available a new perspective on the syntax of *þa* and *þonne*.

***þa*, *þonne* and subject pronouns are in complementary distribution**

- Recall: under the operator analysis of *þa*, *þonne* the verb moves across the subject pronoun to C⁰:



- However, if *þa*, *þonne* are not operators (see section 2), there is actually no reason to assume that the finite verb occupies a position different from its position in other clauses with fronted non-operators.
- Therefore, we claim that the finite verb uniformly occupies T⁰ in all clauses with a fronted non-operator, including those with clause-initial *þa*, *þonne*.
- Now it appears that the preverbal position is either filled by the subject pronoun (giving rise to V3) or with *þa*, *þonne* (leading to V2 and obligatory inversion), apparently an instance of complementary distribution.
- From this we can conclude that *þa*, *þonne* and subject pronouns compete for the same structural position, which we identify as SpecTP:



- More specifically, we claim that in OE, the temporal adverbs *þa*, *þonne* are inserted as the specifier of TP,⁴ thereby blocking movement of the subject pronoun to this position (*Merge over Move*, Chomsky 1995). As a consequence,

⁴ The assumption that *þa*, *þonne* occupy SpecTP is in line with work by Zeller (1994), Alexiadou (1997), and in particular Alexiadou (2000), Giorgi & Pianesi (1997), Cinque (1999) where temporal adverbs are analyzed as temporal arguments that must occupy the specifier of a functional projection.

the pronoun has to stay behind in its (postverbal) theta-position (SpecvP) , giving rise to surface V2 patterns such as (20):

- (20) [CP [TP Ða [T **for** [vP *he* norþryhte be þæm lande]]]
 then went *he* northwards to that land
 ‘Then he went northwards to that land.’
 (Orosius,:1.14.7.128)

- The checking relation between the ϕ -features of T and the feature content of the pronoun is established by covert movement of the pronoun’s set of formal features.
- Following Alexiadou (2000), we assume that SpecTP can host temporal adverbs only if there is no EPP feature in T. However, in languages where such a feature requires subjects to appear in SpecTP, temporal adverbs cannot occur in this position.
- OE: no EPP feature in T (see above); therefore SpecTP is available for temporal adverbs such as *þa*, *þonne*.⁵
- Mod.E.: EPP feature in T; SpecTP reserved for subjects.

The special status of þa, þonne

- Why can only *þa*, *þonne* move to SpecTP and trigger V2 patterns, in contrast to other temporal adverbs in OE?

Basic claims:

- (i) the pronominal character of *þa*, *þonne* sets them apart from other temporal adverbs and enables them to occupy SpecTP, a position reserved for pronominal elements in OE.
- (ii) the role of *þa*, *þonne* in the temporal interpretation of a given clause forces them to occupy SpecTP in OE.

- Historically, *þa* and *þonne* developed out of demonstrative pronouns. In the case of *þa*, the connection with the demonstrative paradigm is still rather transparent in OE, where the temporal adverb *þa* is homophonous with the acc.sg.fem. and nom./acc.pl. of *se* ‘the, that’.
- We suggest that it’s the morphosyntactic make-up of *þa* and *þonne* (i.e. their (pro)nominal character) that enables them to occupy SpecTP (T tolerates only nominal material in its specifier).
- Temporal interpretation: ‘then’ is often classified as an ‘dependent’ (Smith 1981) or ‘purely deictic’ adverb (Cinque 1999:87). In contrast to other temporal adverbs, these adverbs “require the existence of an explicit anchor time to be completely interpreted” (Smith 1981:220). This anchor time is typically given in the discourse context, cf.

⁵ Note that by assumption, pronominal subjects can move to SpecTP in OE. In other words, OE is a language on the brink of changing from a non-EPP to an EPP language, with pronouns leading the charge.

- (21) Hig genealæhton and genamon hys fyt and to him geeaðmeddon.
 they approached and took his feet and to him worshipped
Ða cwæð se hælynd to heom, ...
 then said the Lord to them
 ‘They approached him, held him by the feet and worshipped him. *Then* the
 Lord said to them...’
 (OE Gospels, Matt. 28:9; Freeborn 1998:61)

- Furthermore, ‘then’ serves to link this anchor time (the reference time of the previous clause) with the reference time of the clause in which ‘then’ appears (cf. Smith 1981, Enç 1987, and in particular Thompson 1999).
- Thus, we analyze OE *þa*, *þonne* as temporal anaphora that link the reference time of the clause in which they appear with a reference time given in the discourse context.
- We assume that in OE, the latter function is instantiated by a Spec-head configuration of *þa*, *þonne* and T⁰ (or, the tensed verb), given the special status of SpecTP as a non-subject position, see above.
- In other words, the morphosyntactic make-up of these adverbs explains why they *can* show up in SpecTP, whereas their actual appearance in this position is ultimately triggered by their function, i.e. identifying the temporal setting of a given (main) clause.⁶

4. The loss of ‘then’+V2 in the Middle English period

Observation: chronological parallels between the loss of ‘then’+V2 and changes affecting the status of the subject position in the Middle English (ME) period.

- In contrast to modern English, OE displays a number of subjectless constructions where neither a nominative subject nor an expletive element shows up in the subject position (SpecTP). Relevant examples include weather verbs, experiencer verbs and impersonal passives:

- (22) a. norþan sniwde
 [from] north snowed
 ‘it snowed from the north’
 (Seafarer, 31; Kiparsky 1997:471)
- b. him ofhreow þæs mannes
 him-DAT pitied the man-GEN
 ‘he pitied the man’
 (AColl, 192.16; Allen 1995:68)
- c. þæt eallum folce sy gedemed beforan ðe
 that all people-DAT be judged before thee
 ‘that all the people be judged before you’
 (Paris Ps. 9.18; Kemenade 1997:335)

⁶ Note that in embedded clauses, Tense is always dependent on the temporal anchoring of the matrix clause (cf. Enç 1987). By assumption, this relation is mediated by the complementizer (cf. Travis 1984, Bennis & Hoekstra 1989). Therefore, *þa*, *þonne* are not required to occur in SpecTP. Rather, they are only optional elements that are free to adjoin to any of the maximal projections (TP, vP, VP) giving rise to more word order options.

- In Early Middle English, these constructions began to disappear, a development which is accompanied by the emergence of the expletive *there*. According to e.g. Breivik (1989), (1990), Allen (1995), Kemenade (1997) and Haeblerli (1999), the loss of subjectless structures took place roughly between 1350 and the early 15th century.
- The latter change can be explained in terms of the development of an EPP feature that requires the subject position (here identified as SpecTP) to be overtly filled (either by a nominal bearing nominative case or a semantically vacuous expletive element such as *there*, cf. Fuss to app.).
- Interestingly, it seems that the loss of ‘then’+V2 took place in the very same period. A survey over a set of ME texts in the PPCME2 shows that ‘then’ loses its special status as a trigger of V2 in the period from 1340-1475, cf.⁷

	Full subject DPs			Pronominal subjects		
	number inverted	number uninverted	% inverted	number inverted	number uninverted	% inverted
Ayenbite of Inwit [S], (1340)	14	18	44	16	7	70
Richard Rolle [WM], (1348/49)	2	8	20	10	10	50
Polychronicon [S] (pre1387)	1	58	1	0	55	0
Mirror of St. Edmund, Vernon ms. [WM], (1390)	6	2	75	13	13	50
The Brut or the Chronicles of England [WM], (1400)	17	3	85	34	4	89
Aelred of Rievaulx’s De Institutione [WM], (1400)	6	1	86	3	4	43
Gregory’s chronicle [S], (1475)	12	39	23	6	31	16

Table 1: Frequency of ‘then’+V2 in 7 ME texts

- The correlation between the loss of ‘then’+V2 and development of the expletive *there* becomes particularly clear in the *Ayenbite of Inwit*, a text which exhibits variation between V2 and V3 after clause-initial *þanne* ‘then’, see Table 1 (probably an instance of *Grammar Competition*, cf. Kroch 1989). However, all examples with the expletive *þer* ‘there’ display V3 order, with the expletive intervening between *þanne* and the finite verb:

(23) a. þanne þer nys prowess arizt: ...
 then there not-is prowess properly
 ‘Then there is no proper prowess.’
 (CMAYENBI,83.1613)

⁷ Note that most Northern ME texts show strict V2 with all kinds of fronted XPs, presumably due to Scandinavian influence (cf. Kroch & Taylor 1997, Trips 2002). Therefore, no such texts are included in Table 1.

- b. þanne þer ne is non noblesse: ...
 then there not is no nobleness
 ‘Then there is no nobleness.’
 (CMAYENBI,87.1702)

- The absence of V2 orders in clauses in which *þanne* and *þer* co-occur supports the conjecture that there is a close connection between the loss of ‘then’+V2 and the rise of an EPP feature in T: in cases where an expletive is inserted as SpecTP to satisfy T’s EPP feature, the adverb *þanne* must occupy another position (adjoined to TP or in an outer spec of TP).
- Over time, V2 patterns with ‘then’ dropped out of the grammar, since SpecTP became a position reserved for subjects/expletives which could not host adverbs any longer:

(24) [_{CP} ∅ [_{TP} ‘then’ [_{TP} expl./subj. [_T V_{fin} [_{VP} ...]]]]]

- Note that the connection between the two changes in question receives a natural explanation on the assumption that OE *þa*, *þonne* occupy SpecTP, but remains unaccounted for if these elements are analyzed as operators that are located in SpecCP.

5. Summary

- In this paper, we presented a new approach to V2 patterns triggered by *þa*, *þonne* in OE which does not make use of the dubious assumption that these adverbs are operator-like elements.
- More specifically, we claimed that *þa*, *þonne* are merged as SpecTP, thereby forcing subject pronouns to stay in their theta-position to the right of the finite verb, which occupies T⁰.
- It was argued that a conspiracy of three factors allowed *þa*, *þonne* to occupy SpecTP in OE: (i) due to the absence of an EPP feature in T, SpecTP could host temporal adverbs in OE; (ii) due to their (pro)nominal character, *þa*, *þonne* are eligible for insertion as SpecTP; (iii) the spec-head relation between *þa*, *þonne* and the finite verb serves to link the reference time of the clause in which they appear with a reference time given in the discourse context.
- Finally, we showed that the analysis on hand receives further support since it allows us to attribute the loss of V2 patterns with ‘then’ to an independent change which took place in the ME period, namely the rise of an EPP feature in T.

References

- Alexiadou, Artemis. 1997. *Adverb placement: a case study in antisymmetric syntax*. Amsterdam: John Benjamins.
- Alexiadou, Artemis. 2000. On the syntax of temporal adverbs and the nature of Spec,TP. *Rivista di Linguistica* 12: 53-73, special issue on Adverbs edited by Norbert Corver & Denis Delfitto.
- Allen, Cynthia. 1995. *Case marking and reanalysis: grammatical relations from Old to Early Modern English*. Clarendon, Oxford.

- Bennis, Hans & Teun Hoekstra. 1989. Why Kaatje was not heard sing a song. In Dany Jaspers, Wim Klooster, Yvan Putseys & Pieter Seuren (eds.), *Sentential complementation and the lexicon*. Dordrecht: Foris, 21-40.
- Breivik, Leiv. 1989. On the causes of syntactic change in English. In Leiv Breivik & Ernst Håkon Jahr (eds.), *Language change: contributions to the studies of its causes*. Berlin: Mouton de Gruyter, 29-70.
- Breivik, Leiv. 1990. *Existential "there": a synchronic and diachronic study*. Oslo: Novus Press.
- Cardinaletti, Anna & Ian Roberts. 1991. Clause structure and X-second. Ms., Università di Venezia and Université de Genève. Published in Guglielmo Cinque (ed.). 2002. *Functional Structure in DP and IP: The Cartography of Syntactic Structures, Volume 1*. Oxford: Oxford University Press, 123-166.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Mass.: The MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads*. Oxford: Oxford University Press.
- Enç, Mürvet. 1987. Anchoring conditions for Tense. *Linguistic Inquiry* 18, 633-657.
- Fischer, Olga, Ans van Kemenade, Willem Koopman, Wim van der Wurff. 2000. *The Syntax of Early English*. Cambridge: Cambridge University Press.
- Freeborn, Dennis. 1998. *From Old English to Standard English*. 2nd edition. London: Macmillan Press.
- Fuss, Eric. to app. On the historical core of V2 in Germanic. *Nordic Journal of Linguistics* 26.
- Fuss, Eric & Carola Trips. 2002. Variation and change in Old and Middle English. On the validity of the Double Base Hypothesis. *Journal of Comparative Germanic Linguistics* 4, 171-224.
- Giorgi, Alessandra & Fabio Pianesi. 1997. *Tense and Aspect: from semantics to morphosyntax*. Oxford: Oxford University Press.
- Green, Georgia. 1980. Some wherefores of English inversions. *Language* 56, 582-601.
- Haeberli, Eric. 1999. *Features, categories and the syntax of A-positions. Synchronic and diachronic variation in the Germanic languages*. Doctoral dissertation, University of Geneva.
- Hulk, Aafke & Ans van Kemenade. 1995. Verb second, pro-drop, functional projections and language change. In Adrian Battye & Ian Roberts (eds.), *Clause structure and language change*. Oxford: Oxford University Press, 227-256.
- Kemenade, Ans van. 1987. *Syntactic case and morphological case in the history of English*. Diss., Rijksuniversiteit te Utrecht.
- Kemenade, Ans van. 1997. V2 and embedded topicalization in Old and Middle English. In Ans van Kemenade, & Nigel Vincent (eds.), *Parameters of morphosyntactic change*. Cambridge: Cambridge University Press, 326-351.
- Kemenade, Ans van. 1999. Sentential negation and clause structure in Old English. In Ingrid Tieken-Boon van Ostade, Gunnel Tottie, & Wim van der Wurff (eds.), *Negation in the history of English*. Berlin and New York: Mouton de Gruyter, 147-165.
- Kiparsky, Paul. 1997. The rise of positional licensing. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of morphosyntactic change*. Cambridge: Cambridge University Press, 460-493.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*. Dordrecht: Kluwer, 109-137.
- Kroch, Anthony. 1989. Reflexes of grammar in patterns of language change. *Journal of Language Variation and Change* 1.3, 199-244.
- Kroch, Anthony & Ann Taylor. 1997. Verb movement in Old and Middle English: dialect variation and language contact. In Ans van Kemenade & Nigel Vincent (eds.), *Parameters of morphosyntactic change*. Cambridge: Cambridge University Press, 297-325.
- Mitchell, Bruce. 1985. *Old English Syntax*. Oxford: Clarendon
- Mitchell, Bruce & Fred Robinson. 1992. *A Guide to Old English*. Oxford: Blackwell.
- Pintzuk, Susan. 1993. Verb seconding in Old English: verb movement to Infl. *The Linguistic Review* 10, 5-35.
- Pintzuk, Susan. 1999. *Phrase structures in competition: variation and change in Old English word order*. New York: Garland.
- Rizzi, Luigi. 1996. Residual Verb Second and the Wh-criterion. In Adriana Belletti & Luigi Rizzi (eds.), *Parameters and functional heads*. Oxford: Oxford University Press, 63-90.
- Roberts, Ian. 1998. Have/be raising, Move F, and Procrastinate. *Linguistic Inquiry* 29:1, 113-125.

- Smith, Carlotta. 1981. Semantic and syntactic constraints on temporal interpretation. In Philip. Tedeschi & Annie Zaenen (eds.), *Syntax and Semantics 14: Tense and Aspect*. New York: Academic Press, 213-237.
- Stockwell, Robert. 1977. Motivations for exbraciation in Old English. In Charles. Li (ed.), *Mechanisms of Syntactic Change*. Austin: University of Texas Press, 291-314.
- Thompson, Ellen. 1999. The temporal structure of discourse: the syntax and semantics of temporal *then*. *Natural Language and Linguistic Theory* 17: 123-160.
- Tomaselli, Alessandra. 1995. Cases of Verb Third in Old High German. In Adrian Battye & Ian Roberts (eds.), *Clause structure and language change*. Oxford: Oxford University Press, 345-369.
- Travis, Lisa. 1984. *Parameters and effects of word order variation*. Doctoral dissertation, MIT.
- Trips, Carola. 2002. *From OV to VO in Early Middle English*. Amsterdam: John Benjamins.
- Zeller, Jochen. 1994. *Die Syntax des Tempus*. Opladen: Westdeutscher Verlag.

Electronic corpora

- Kroch, Anthony & Ann Taylor. 2000. *The Penn-Helsinki Parsed Corpus of Middle English, Second Edition (PPCME2)*. Philadelphia: Department of Linguistics, University of Pennsylvania.
- Taylor, Anne, Anthony Warner, Susan Pintzuk, and Frank Beths. 2002. *The York-Toronto-Helsinki Parsed Corpus of Old English (York Corpus)*.

Carola Trips
 Institut für Linguistik/Germanistik
 University of Stuttgart
 Keplerstraße 17
 70174 Stuttgart
 Germany
 carola@ims.uni-stuttgart.de

Eric Fuss
 Institut für deutsche Sprache und Literatur II
 University of Frankfurt
 Grüneburgplatz 1
 60629 Frankfurt
 Germany
 fuss@lingua.uni-frankfurt.de