The syntax of temporal anaphora in early Germanic

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1. Introduction

- The early Germanic languages exhibit a class of temporal adverbs that originated from former demonstratives: Gothic þan(uh), Old English (OE), þa, þonne, Old High German (OHG) thô, thanne, Old Saxon (OS) tha, thanna, all roughly meaning ‘then’.
- These adverbs often show a peculiar syntactic behaviour that sets them apart from other adverbs: (i) In OE, þa, þonne consistently trigger inversion; (ii) they can assume the role of conjunctions in all early Germanic languages.

(1) Þa 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)

(2) Þonne ernoð hy ealle toweard þæm feo; then run-to they all towards the treasure
‘Then they all ran towards the treasure.’
(Orosius,:1.17.21.233)

(3) ða se wisdom þa ðís spell asæd hæfde, þa ongan he eft singan
when the wisdom then this story said had then began he again sing
‘When wisdom then had told this story, he began to sing again’
(Fischer et al: 2000, 57)

- Etymology of þa (bo): OE.ðá, Pá, ModE then, when; originally a case-form of the demonstrative stem Pa- of the, that; the actual accusative singular feminine form.
- Etymology of þanne (bonne): OE Þanne, Þonne, Þænne, Þenne, ME. Þenne, Þan, Þen (OHG. danne, denne, MHG. danne, denne, G. denn); cf. also Gothic Pan; adverbial formations from the demonstrative root Pa-: cf. that, the. Both the adverb and the conjunction then originate in the same word, which in both senses varied in ME. and 16th c. between then and than (ModG has dann (adverb) ‘then’, denn (conjunction) ‘than’) (from the OED, 2002)
- According to Ramat (1981) the Proto-Germanic demonstrative *TO- is the origin of West Germanic temporal adverbs and conjunctions like OE þa, OHG dô, later with a nasal suffix as in Gothic þan. What these elements have in common is their anaphoric and deictic function in relation to something previously mentioned.
• Focusing on the syntax of *þa, þonne* in OE and the changes that affected the distribution of these elements in the Middle English (ME) period, this paper presents a new approach to the syntactic behaviour of these elements based on the following assumptions:

**Basic claims:**

(i) OE was a discourse-configurational language; that is, word order was determined by discourse-related factors such as anaphoricity, or the distinction between old/new information (in contrast to ME and ModE where it primarily serves to discriminate syntactic functions), cf. e.g. Fischer et al. (2000), Kemenade & Los (2006).

(ii) Subject pronouns and clause-initial *þa, þonne* compete for the same structural position, which is linked to the discourse anchoring of anaphoric expressions in OE (and which we identify as SpecTP).

2. *þa, þonne* and 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前线ed XP, leading to subject-verb inversion (examples taken from Trips 2002:231):

(4) a. object–Vfin–subject

\[\text{Æfter þysum worde} \quad \text{he} \quad \text{wear} \quad \text{ðæm eall gehæeled.}\]

‘After this word, he was all healed.’

(ÆLS_[Sebastian]:299.1391)

b. PP–Vfin–subject

\[\text{On þysse dune ufanweardræ} \quad \text{bæd} \quad \text{Sanctus Albanus} \quad \text{fram Gode ...}
\]

‘On this hill higher up Saint Alban asked from God ...’

(Bede_1:7.38.30.323)

c. adverb–Vfin–subject

\[\text{Uneaðe} \quad \text{mæg mon to geleafsuman geseçgan ...}
\]

‘Hardly may man speak to the faithful ...’

(Or_3:9.70.16.1292)
• However, subject-verb inversion is obligatory with both pronominal and nominal DP subjects if the fronted element is an operator such as a wh-phrase as in (6) or the negation ne as in (7):

(6) a. Hwæt sculon we þæs nu ma secgan?
   what shall we afterwards now more speak
   ‘What shall we afterwards speak now more?’
   (Bede_2:9.132.1.1253)
   b. hu wurð he elles gelæred?
      how was he otherwise taught
      ‘How was he taught otherwise?’
      (BedePref:2.11.153)

(7) 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
      authority
      ‘You might not judge the Gaul’s bishops but their own authority.’
      (Bede_1:16.74.5.679)

• In addition, subject-verb inversion is obligatory with all kinds of subjects in cases where the clause-initial position is occupied by the temporal adverbs þa, þonne ‘then’ (cf. Mitchell 1985, Kemenade 1987, Kroch & Taylor 1997, Pintzuk 1999):

(8) Þa 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) Donne gernað hy ealle toweard þæm feo;
   Þen run-to they all towards the treasure
   ‘Then they all ran towards the treasure.’
   (Orosius,:1.17.21.233)

   (i) Subject pronouns occupy a fixed position at the left edge of IP (preceded by fronted topics).
   (ii) Full DP subjects occupy a lower (presumably VP-internal) position (in more technical terms, Infl/T does not host an EPP feature in OE).
(iii) The finite verb occupies a head position in the IP domain; it moves further to C only in operator contexts (leading to obligatory subject-verb inversion).

(10) \[ \text{V3 with pronominal subjects} \]
\[ [CP \text{Æfter þysum worde} [IP he [ \text{weard} \ [VP eall gehæled]]]]. \]
‘After this word, he was all healed.’
(ÆLS_[Sebastian]: 299.1391)

(11) \[ \text{V2 with full DP subjects} \]
\[ [CP Þæt hus [IP ðæfdon [VP Romane to ðæm anum tacne geworht]]]]. \]
‘The Romans had made that house to their sole sign.’
(Or_3:5.59.3.1042)

(12) \[ \text{Obligatory inversion with fronted operators} \]
\[ [CP hu [C wurð+C0 [IP he [r tī [VP elles gelæred tī]]]]. \]
‘How was he taught otherwise?’
(BedePref:2.11.153)

- Problem: up to now, no convincing explanation of obligatory inversion triggered by \textit{þa} and \textit{þonne}.
- Traditional analysis: \textit{þa}, \textit{þonne} are syntactic operators on a par with wh-phrases negation etc. As a result, they trigger verb movement to \textit{C0} which crosses the subject pronoun in SpecTP (cf. e.g. van Kemenade 1987):

(13) \[ [CP þa/þonne [C V_{fn} [TP pron. [r tv [IP ... ]]]]]. \]

- Problem: lack of V2 effects with ‘then’ in Modern English: although fronted operators such as wh-phrases and negation continue to trigger inversion in Modern English, \textit{then}, the present-day equivalent of OE \textit{þa}, \textit{þonne} fails to do so:

(14) a. *\textit{Then will} Harry/he read that book.
    b. \textit{Then} Harry/he \textit{will} read that book.

- Kemenade & Los (2006): clause-initial \textit{þa}/\textit{þonne} is a discourse operator located in SpecCP that signals discourse continuity and requires the finite verb to occupy C.
- Unclear: (i) notion of “discourse operator”; (ii) why is the finite verb required to move to C?
3. An alternative approach

3.1 Preliminaries: The syntax-discourse interface

- An utterance that coherently continues a given discourse must meet at least the following conditions w.r.t. the syntax-discourse interface:
  1. Sentence mood (“Force”) must be coded (questions vs. assertions etc.)
  2. Distinction between “old”, given information and “new” information must be properly marked (topic vs. focus etc.)
  3. Anaphoric expressions must be anchored in the discourse (e.g., pronouns must receive a referential index)

- Conjecture: In discourse-configurational languages like OE, not only (i) & (ii), but also (iii) may be linked to certain structural positions/configurations in the syntax.

3.2 The temporal interpretation of clause-initial *pa/ponne*

- **Semantics of ‘then’:** ‘then’ is commonly analyzed as a temporal anaphor that (i) introduces a temporal relation between two sentences, and (ii) must be linked to an anchor time given in the discourse (cf. Smith 1981, Schiffrin 1992, Glasbey 1993, Thompson 1999).

- **Syntactic position determines the temporal interpretation of ‘then’:** systematic differences between clause-initial and clause-final *then* in Modern English (cf. e.g. Schiffrin 1992, Thompson 1999).

- **Clause-initial *then* (henceforth sequential ‘then’):** (i) sentence adverb, associated with IP; (ii) events described by successive sentences are interpreted as temporally ordered – in (15), the photographing event occurs after the speaking event, and there is no temporal overlap between these events (sequential/ordered reading):

  \begin{equation}
  (15) \quad \text{Mary will speak to the reporters. Then Bill will photograph her. (Thompson 1999: 126)}
  \end{equation}

- **Clause-final *then* (henceforth cotemporal ‘then’):** (i) VP-adverb; (ii) events described by two successive sentences are interpreted as temporally overlapping – in (16), Bill photographs Mary while she is speaking to the reporters:

  \begin{equation}
  (16) \quad \text{Mary will speak to the reporters. Bill will photograph her then. (Thompson 1999: 126)}
  \end{equation}

- **Analysis (Thompson 1999):** The anaphoric character of ‘then’ consists in linking (Reichenbachian) times in tense structure with relevant times given in the immediate discourse context.\(^1\)

\(^1\) In somewhat more formal terms, we can say that the interpretation of temporal anaphora requires the assignment of a temporal index given in the discourse.
• **cotemporal ‘then’** links the Event time of its clause (associated with VP) with the Event time of the previous clause (→cotemporal reading).

• **sequential ‘then’** links the Reference time of its clause (associated with IP) with the Reference time of the previous clause (→ordered/sequential reading).

• Clause-initial *pa, ponne*: typically used to mark a sequence of foregrounded successive actions/events that do not overlap temporally (cf. e.g. Foster 1975, Enkvist & Wårvik 1987, Wårvik 1995). Compare the Oththere interpolation in Alfred’s Orosius (reproduction of oral narrative; simple narrative structure):

(17) He sæde þæt he sæt sumum cirre wolde fandian hu longe þæt land norþryhte læge, oþþæ hwaþær ænig mon be norðan þæm westenne bude. *Pa* for he norþryhte be þæm lande; let him ealne weg þæt weste land on ðæt steorbord & þa widsæ on ðæt bæcbord þrie dagas. *Pa* wæs he swa feor norþ swa þa hwælhuntan firrest farþæ. *Pa* for he þæ giet norþryhte swa feor swa he meahTE on þæm ðæþæ þrim dagum gisegælan. *Pa* beag þæt land ðæ þær eastryhte, oþþæ seo sæ in on ðæt lond, he nyssæ wæþær buton he wisse ðæt he ðær bad westanwindex & hwon norþan & siglde ða east be lande swa swa he meahTE on feower dagum gisegælan. *Pa* sceolde he ðær bidan ryhtnorþanwindex, for ðæm þæt land beag ðæ þær suþryhte, oþþæ seo sæ in on ðæt lond, he nyssæ hwaþær. *Pa* siglde he þonan suþyhte be lande swa swa he mehtæ on ðæ dagum gisegælan. *Pa* læg þær an micel ea up in on þæt land. (Or_1:1.14.5.226-235)

‘He said that at one occasion he wanted to find out how far that land extended northwards, or whether any man lived north of the wilderness. Then he travelled northwards along the coast; keeping all the way the waste land on the starboard and the open sea on the portside for three days. Then he was as far north as the whalehunters go furthest. Then he travelled still northwards as far as he could sail in another three days. Then the land turned east, or the sea into the land, he didn’t know which, but he knew that he there waited for a wind from the west and somewhat from the north and sailed then east along the coast as far as he could sail in four days. Then he had to wait for a due north wind, because that land turned there directly to south, or the sea into the land, he didn’t know which. Then he sailed from there southwards along the coast as far as he could sail in five days. Then there was a large river reaching up into the land.’ (Enkvist & Wårvik 1987: 234)

• **Preliminary conclusions**: Clause-initial *pa, ponne* triggering inversion are instances of sequential ‘then’, linking the Reference time of their clause with the Reference time of a previous clause. Accordingly, they must be associated with IP, the locus of Reference time.

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2 Intuitively, the linking of Reference time results in an ordered reading in the following way: If the tense structures of two successive clauses are linked by clause-initial ‘then’, this leads to an interpretation where both clauses share the same Reference time. Now, if there is no additional link associating the Event times of the two clauses, the event described by the first clause is (by default) interpreted as completed when a subsequent clause describes a second action or event that is viewed from the same Reference time.
3.3 The distribution of sequential *þa/þonne* and subject pronouns

- **Observation:** Fronted *þa, þonne* may be preceded by a topicalized phrase, giving rise to V3 orders that are reminiscent of the kind of V3 occurring with subject pronouns (compare (5) above):

(18) a. On *þa ilcan tima þa comon hi* to Medeshamstede...
   at the same time they came to M.
   (ChronE_[Plummer]:870.5.1115)

b. Syððan *þa com he* to se cyng Eadgar, ...
   afterwards he came to the king E.
   (ChronE_[Plummer]:963.9.1396)

c. Mid *þam ða com þæt wif.*
   with that then came that woman
   (ACHom_IL_8:67.14.1355)

d. Him *þa andswarode se bispoc.*
   him then answered the bishop
   (GD_1_[C]:4.28.5.293)

(19) a. For *þi þonne wacion we, ...*
   for that then stay-awake/watch we
   ‘because then we stay awake/watch...’
   (ChrodR_1:14.6.277)

b. On *ðone sexteðan ðæg ðæs monðes þonne bið* on the sixteenth day of-the month then is
   Sancte Marcelles tid ðæs papan.
   Saint Marcel-GEN feast-day of-the pope-GEN
   (Mart_5_[Kotzor]:Ja16,A.1.99)

- Note that in the above examples, both pronominal ((18a,b) & (19a)) and full nominal subjects ((18c) & (19b)) undergo inversion with the finite verb.

- **Recall:** fronted *þa, þonne* are better analyzed as non-operators (see section 2 above).

- **Claim:** The finite verb uniformly occupies INFL/T in all clauses with a fronted non-operator, including those with clause-initial *þa, þonne*.

- Accordingly, the data in (18) & (19) can be accounted for under the following assumptions:
  
  (i) The topicalized element occupies SpecCP.
  (ii) *þa, þonne* occupy a spec in the inflectional domain, presumably SpecTP.
  (iii) The finite verb is located in T.
  (iv) All subjects, including pronouns occupy a lower, VP-internal position.

(20) **V3 with *þa, þonne***

[CP topic [TP *þa/þonne* [T Vfin [,P subject (pronoun) ...]]]]

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3 The absence of a fronted topic leads to V2 orders as in (1) & (2) above.
• If we compare the structure in (20) with the structure commonly posited for V3 orders with pronominal subjects, it appears that the preverbal position is apparently either filled by the subject pronoun (giving rise to V3 without inversion) or with *pa, *ponne (leading to V2/V3 and obligatory inversion):

(21) **V3 orders with fronted non-operators**

\[
\text{[CP topic [TP subject pronoun [T \ V_{\text{fin}} [,P ...]]]]}
\]

• This can be taken to suggest that *pa, *ponne and subject pronouns compete for the same structural position (see appendices I & II for a more detailed view on the distribution of *pa, *ponne in both main and embedded clauses).

• **Analysis:** The temporal anaphora *pa, *ponne are merged in the specifier of TP, thereby blocking movement of the subject pronoun to this position (*Merge over Move*, Chomsky 1995). As a consequence, the pronoun has to stay behind in its theta-position (Spec\(\nu\)P), giving rise to subject-verb inversion. Case and agreement checking with the in-situ pronoun can be accomplished by an AGREE-relation initiated by T.

• Further evidence that this position is to be identified as SpecTP:
  (i) Sequential *pa, *ponne specify Reference time, which is often associated with IP/TP (Hornstein 1990, Stowell 1995, Thompson 1999).
  (ii) **Tense selection:** *pa requires that the finite verb is in the preterite indicative (in contrast to *ponne, which occurs with other tenses/moods as well, cf. Mitchell 1985, Wårvik 1995).

• **Question:** Why do subject pronouns and *pa, *ponne compete for SpecTP?

### 3.4 Discourse-configurationality and the nature of SpecTP in OE

• **OE as a discourse-configurational language; structural positions are not linked with grammatical functions, but with information-structural distinctions (cf. Fischer et al. 2000, Kemenade & Los 2006).**

• **Basic claims:** In OE, the licensing of anaphoric expressions was linked to certain structural positions. More specifically, we claim that the discourse anchoring of temporal anaphora (sequential ‘then’) and (subject) pronouns took place in SpecTP, which was associated with anaphoricity.\(^4\) Furthermore, we adopt the (common) assumption that SpecTP is reserved for nominal material (i.e., it is specified as [+D]):

(22) **SpecTP in OE: [+anaphoric, +D]\(^5\)**

• **Subject pronouns:** [+D], [+anaphoric]; move to SpecTP to receive a referential index given in the discourse context.

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\(^4\) That is, we assume that the assignment of referential/temporal indices drawn from the discourse context (which is necessary to interpret anaphoric expressions) took place in SpecTP.

\(^5\) Recall that we assume that in OE, T lacked an EPP feature. The frequent presence of subject pronouns in SpecTP (due to their anaphoric nature) possibly supported the development of [+EPP] T in the ME period (see section 4 below).
• **Full DP subjects** [+]D, [–anaphoric]; remain in situ (SpecvP), since they are referential expressions (but may move further up into the C-domain to be interpreted as topic, focus etc.).

• **ba, bonne** [+]D, [–anaphoric]; if interpreted as a sentence adverb (sequential ‘then’), *ba, bonne* are merged in SpecTP to receive a temporal index (i.e., they are linked with a Reference time given in the discourse), blocking movement of subject pronouns to this position.

• In cases where *ba, bonne* occupy SpecTP, the assignment of a referential index to the subject pronoun proceeds via an AGREE-relation between T and the pronoun (established during the syntactic derivation for independent reasons (Case and agreement)).

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### 4. The loss of ‘then’+inversion 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:

\[(23)\]

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<td>a. norþan</td>
<td>sniwe</td>
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<tr>
<td>[from] north</td>
<td>snowed</td>
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<td>‘it snowed from the north’</td>
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<td>(Seafarer, 31; Kiparsky 1997:471)</td>
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<tr>
<td>b. him</td>
<td>ofhrow</td>
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<td>him-DAT</td>
<td>pitied</td>
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<td>‘he pitied the man’</td>
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<td>(AColl, 192.16; Allen 1995:68)</td>
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<tr>
<td>c. þæt</td>
<td>eallum folce</td>
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<td>that all</td>
<td>people-DAT</td>
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<td>‘that all the people be judged before you’</td>
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<td>(Paris Ps. 9.18; Kemenade 1997:335)</td>
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• 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 Haeberli (1999), the loss of subjectless structures took place roughly between 1350 and the early 15th century.

• This change can be attributed to the development of an EPP feature that requires the subject position (here identified as SpecTP) to be overtly filled –

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6 Note that this is reminiscent of the relation between *there* and its associate DP in existential constructions.

7 More generally, it seems that there are chronological parallels between the overall loss of V2-patterns and the rise of the requirement that the subject position be overtly filled (in the ME period, roughly from 1350 to 1425, cf. Hulk & van Kemenade 1995, Kemenade 1997, Haeberli 1999, 2000, Fuß 2003).
either by a nominal bearing nominative case or a semantically vacuous expletive element such as *there*.

- 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. Fuß & Trips (2003).

- This period was characterized by a whole set of surface changes that contributed to the overall loss of discourse-configurationality (loss of case inflections, loss of subjectless constructions, general loss of word order variation, rise of structural passive constructions etc.).

- The correlation between the loss of ‘then’+V2 and development of the expletive *there* becomes particularly clear in the *Ayenbite of Inwit* (1340), a text which exhibits variation between inverted and non-inverted orders after clause-initial *panne* ‘then’.

- However, all examples with the expletive *per* ‘there’ display V3 order, with the expletive intervening between *panne* and the finite verb:

  (24) a. *panne* *per* *nys* prowess ari t: ...
      then there not-is prowess properly
      ‘Then there is no proper prowess.’
      (CMAYENBI,83.1613)
  
  b. *panne* *per* 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 *panne* and *per* 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 *panne* must occupy another position (e.g., in the CP domain, or adjoined to 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:

  (25)  
  
- The connection between the two changes in question can be nicely captured under the assumption that OE *pa, bonne* occupy SpecTP, but is much more difficult to account for if these temporal adverbs are analyzed as operators located in SpecCP.

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8 In the *Ayenbite of Inwit*, we found 70% inversion with subject pronouns (16 of 23 cases), and 44% inversion with full subject DPs (14 of 32 cases), probably an instance of Grammar Competition (Kroch 1989).

9 In a similar vein, Alexiadou (2000) assumes 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.
• The development in question is also reflected by changes affecting the so-called ‘correlative construction’, in which an adverb at the beginning of an independent clause recapitulates or anticipates a temporal adverb clause.

• Example from OE:

(26) **Da se wisdom þa ðis spell asæd hæfde, þa ongan he eft singan**
    when the wisdom then this story said had then began he again sing
    ‘When wisdom then had told this story, he began to sing again’
    (Fischer et al: 2000, 57)

• In ME we find three patterns:

(27) ‘when’-S-V\_fin ... ‘then’-V\_fin-S (OE order, 34 cases)
    for **whan** they knownen thy naked purpos, **thanne** haue **thei**
    for when they know your naked purpose then have they
    no cause to repreue the, neither for pore folke ne for noo religious
    no cause to repreive you, neither for poor folk nor for no religious
    gystes.
    gests
    (AELR4,3.68)

(28) ‘when’-S-V\_fin ... ‘then’-S-V\_fin (38 cases)
    bote **whanne** he schal come hym-self to gyue rigtful dom
    but when he shall come himself to give rightful judgment
    ate day of dome, **banne** he **schal** be knowe a verrey myghtful God.
    at day of judgement then he shall be known a very mightyful God
    (AELR3,47.668)

(29) ‘then’, ‘when’-S-V\_fin ... 0/S-V\_fin ... (6 cases)
    **Then** aftyr, **when** scho was wened, **pay broght** hur to be tempull,
    then after when she was accustomed they brought her to the temple
    (MIRK,16.471)

• The last pattern might indicate the change from the pattern **pa-V\_fin-S to pa-S-V\_fin**: Under the assumption that **pa** triggers V2 for discourse reasons, when the main clause is interrupted by the **when-clause** (with **pa** preceding that clause), subject-verb inversion can no longer be triggered and thus S-V\_fin orders start to occur.

5. V2 and temporal anaphora in other early Germanic languages

• General observation on clause-initial ‘then’: Parallels concerning syntax and discourse function(s) between OE **pa**, **ponne** and the relevant cognate forms in other early Germanic languages (cf. Betten 1987 on OHG **thô**, Klein 1994 on the use of clause-initial **panuh** in Gothic), compare the following quote from
Klein (1994: 262) on the discourse function of Gothic *þanuh*/*þaruh*, and the passage from the OHG Tatian translation in (30):10

“[...] the former two particles [Gothic *þanuh* and *þaruh*] are discourse-continuative foregrounding markers, carrying forward the discourse along the time-line of the main story [...]” (Klein 1994: 262)11

(30) Thô gihortun inan thie iungiron sprechantan inti folgetun themo heilante. Thô giuuanta sih ther heilant inti gisah sie imo folgente, quad in: uuaz suochet ir? Sie quadun imo: rabbii (thaz ist arrekit meistar) uuâr artos? Thô quad her in: quemet inti gisahet. Quamun sie thô inti gisahun uuâr her uuoneta, inti uuonetun mit imo then tag; thô uuas thiu zehenta zit thes tages. (Tatian, 16.2; Betten 1987: 397)

‘Then the disciples heard him speak: and they followed the Saviour. Then the Saviour turned and saw them following him, saith to them: What seek you? They said to him: Rabbi (which is to say, being interpreted, Master), where dwellest thou? Then he saith to them: Come and see. They came and saw where he abode: and they stayed with him that day. Then it was about the tenth hour.’

5.1 A closer look at Old High German

• **Background**: In contrast to OE, even the earliest records of Old High German exhibit a much more consistent V2 syntax.

• In the following example, a non-V2 order (in the Latin original) is changed to a V2 declarative in the OHG translation, in which the subject pronoun follows the finite verb. This suggests that pronouns underwent regular subject-verb inversion as early as in the OHG Isidor translation (around 800):

(31) a. et ideo nobis natus est
and therefore us born is

b. endi [bidhiu] uuard ir uns chiboran
and therefore was he us born

‘And therefore he was born to us.’
(Isidor, 394)

• Similar examples are found in the OHG Tatian translation (around 880):12

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10 Interestingly, Hirt (1929: 352f.) observes that clause-initial ‘then’ triggers regular inversion in other early Indo-European languages as well (including Sanskrit and Old Greek). This might be taken to indicate that the phenomenon in question is actually of greater antiquity than originally assumed.

11 See Betten (1987: 405) for a very similar characterization of the discourse function(s) of OHG *thô*.

(32) tunc & ipse ascendit → tho ersteig her úf
then self went-up then climbed he up
ad diem festum zi themo itmalen dage
to feastday to that solemn day
‘then he himself went also up unto the feast’
(347,12f. [104,3]; Dittmer & Dittmer 1998: 79)

• OHG Tation translation: In the vast majority of relevant main clauses, deviations from the word order of the Latin original result in V2 order (cf. e.g. Dittmer & Dittmer 1998).
• This is achieved by either (i) reducing the number of preverbal elements found in the Latin original (via shifting elements to a postverbal position, mostly in the middle field) or (ii) inserting or shifting elements to the prefie in cases where the Latin original exhibits V1 order.
• Strategy (ii) is of particular interest: According to Dittmer & Dittmer (1998:95), the chapters 106-109 of the OHG Tatian contain 12 cases where an empty preverbal position in Latin is rendered by an OHG clause with a single element in front of the finite verb (in addition, there are 34 relevant examples in chapters 140-150).
• Dittmer & Dittmer further note that these elements are always light elements such as subject pronouns (e.g., ih ‘T’, 3 examples), thô (‘then’, 8 examples), and thanne (‘then’, 1 example):

(33) dixit illi. → thô quad her imo.
said him then said he him
‘then he said to him’
(Tatian 357,1 [106,2]; Dittmer & Dittmer 1998: 92)

(34) rogo ergo te pater → ih bitiu thih fater
pray-1SG therefore you father I pray you father
‘I pray thee therefore father’
(Tatian 365,5 [107,3]; Dittmer & Dittmer 1998: 95)

• Note that these are the very same elements that (obligatorily) occupy the preverbal position SpecTP in main clauses of OE.
• This can be interpreted in the following way:
• Cases in which another element is newly inserted into the preverbal field still reflect the unmarked, ‘core’ instances of inversion/V2 in OHG.
• The facts illustrated in (33) and (34) can then be taken to suggest that full V2 developed via a structural change in which patterns involving an obligatory spec-head relationship between the finite verb and anaphoric elements in SpecTP (‘then’ or pronouns) were reanalyzed in terms of an obligatory spec-head configuration in the C-domain:

(35) a. [CP ... [TP ‘then’/subject pronoun [r Vfin [c_p ...]]]] →

b. [CP ‘then’/subject pronoun [C Vfin [TP [c_p ...]]]]
Presumably, this change reinforced the V2 character of the ancestor(s) of OHG by adding new V2 patterns to already existing cases of inversion with fronted operators.

6. Summary

- In this paper, we presented a new approach to V2 patterns triggered by *pa, ponne* in OE which does not make use of the problematic assumption that these adverbs are operator-like elements.
- Clause-initial *pa, ponne* were analyzed as temporal anaphora that give rise to a reading where actions/events are temporally ordered. This particular interpretation was accounted for by the assumption that clause-initial *pa, ponne* links the Reference time of consecutive clauses.
- In narratives, *pa, ponne* are employed as discourse markers that mark a sequence of foregrounded actions/events.
- The relative distribution of *pa, ponne* and subject pronouns was taken to indicate that these elements compete for the same structural position, SpecTP. We argued that this position was linked to the discourse anchoring of anaphoric expressions in OE.
- The fact that *pa, ponne* trigger inversion with pronominal subjects was attributed to the assumption that these temporal anaphora are merged in SpecTP, thereby forcing subject pronouns to stay behind in a VP-internal position (with the finite verb in T).
- Further support for our analysis comes from the loss of V2 patterns with ‘then’ in the ME period, which can be attributed to an independent change, namely the rise of an EPP feature in T (and the overall loss of discourse-configurationality).
- A brief look at other early Germanic languages revealed parallels between OE *pa, ponne* and the relevant cognates forms in Gothic and OHG, concerning both syntactic properties and discourse functions.
- Finally, we speculated that inversion structures with ‘then’ possibly played a role in the rise of general V2 in early stages of German.
Appendix I: *palþonne* in embedded clauses

- **Observation**: At first sight, embedded clauses exhibit an even wider range of ordering possibilities concerning the position of adverbial *palþonne* (see Adams 1907, Mitchell 1985, Kemenade & Los 2006 for details).
- However, in contrast to main clauses, subject pronouns generally occur to the left of *palþonne*, directly adjacent to the complementizer:\(^{13}\)

\[(36) \ \text{Pa hi ba hine geornlice beheoldon...} \\
\quad \text{when they then them carefully beheld...} \\
\quad \text{‘when they then carefully beheld him...’} \\
\quad (\text{coeust, LS\_8\_[Eust]:270.286; Kemenade & Los 2006: 236f.})\]

- **Problem**: not expected under the analysis proposed in section 3 (presence of *palþonne* should block movement of subject pronouns).
- **Possible answer(s)**: Tense properties of embedded clauses differ significantly from the tense properties of main clauses. More precisely, embedded tense is dependent on the temporal anchoring of the matrix clause (cf. e.g. Enç 1987). Presumably, this dependency is mediated by the complementizer (cf. Travis 1984, Bennis & Hoekstra 1989).
- Therefore, it seems plausible to assume that in embedded clauses the interpretation of temporal anaphora such as *pa, ponne* is less dependent on an anchor time given in the discourse, but can rather be computed directly from the tense properties of the matrix clause transferred to embedded T. Hence, *pa, ponne* are not required to occupy SpecTP, giving rise to more word order options.
- Moreover, note that the typical rhetoric use of sequential ‘then’ in OE (marking of foregrounded successive actions/events, cf. Foster 1975, Enkvist & Wårvik 1987) is much less called for in embedded clauses, which are typically associated with backgrounded information.
- In contrast, the requirements for identifying the reference of pronominal elements do not differ much from the situation in main clauses. As a result, SpecTP is regularly occupied by subject pronouns in embedded clauses.\(^{14}\)

\[^{13}\] Furthermore, object pronouns may occur to the left of *palþonne*, either alone (if there’s no pronominal subject present), or together with the subject pronoun:

(i) *ðætte heie ðonne* gemonnwærige sia lufu & sia geferræden hiora niehstena...
\quad \text{that them then may-humanize the love and the society of their neighbors} \\
\quad \text{‘that love and the society of their neighbors may humanize them’} \\
\quad (\text{cocura,CP:47.363.15.2461; Kemenade & Los 2006: 236})

(ii) *gif he hit him ðonne* sellan mæge
\quad \text{if he it him then give may} \\
\quad \text{‘if he can give it him then’} \\
\quad (\text{cocura,CP:44.323.24; Kemenade & Los 2006: 235})

The presence of all pronouns in front of *palþonne* can perhaps be accounted for under the assumption that pronominal elements may form a cluster prior to movement to SpecTP. In addition, it is of course possible, that some of the apparently problematic examples involve instances of cotemporal ‘then’, which occupies a lower, VP-adjoined position.
• Prediction: *ba, bonne* may show up in SpecTP, directly adjacent to the complementizer, if the clause does not contain other anaphoric elements (in particular, no subject pronouns). This seems to be borne out by the facts:

(37) a. Gif *bonne* swiðra wind aras, *bonne* tynde he his bec
if then stronger wind arose then closed he his books
‘if a stronger wind then arose, then he closed his book’
(cobede,Bede_4:3.268.18.2727; Kemenade & Los 2006: 238)
b. Gif *bonne* hwylc læsse þing sie to smeagenne, *bonne*
if then any less thing be to think on then
‘if there is any more minor thing to consider, then...’
(cobenrul,BenR:3.16.9.232; Kemenade & Los 2006: 238)

14 For reasons of Relativized Minimality, object pronouns may occupy SpecTP only (i) if they form a cluster with the subject pronoun prior to movement to SpecTP, or (ii) if no subject pronoun is present.
Appendix II: A closer view on the distribution of pronouns and \textit{pa, ponne}

<table>
<thead>
<tr>
<th>SpecCP</th>
<th>C</th>
<th>SpecTP</th>
<th>T</th>
<th>VP-internal</th>
<th>Comments$^{15}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (topic)</td>
<td>$\emptyset$</td>
<td>pron$_{subj}$</td>
<td>V$_{fin}$</td>
<td>...</td>
<td>giving rise to V3 with fronted non-operators</td>
</tr>
<tr>
<td>b. (topic)</td>
<td>$\emptyset$</td>
<td>\textit{pa, ponne}</td>
<td>V$_{fin}$</td>
<td>pron$_{subj}$</td>
<td>Most common pattern with fronted \textit{pa, ponne} (2094 tokens plus 21 with fronted non-pronominal topic)</td>
</tr>
<tr>
<td>c.</td>
<td>pron$_{subj}$</td>
<td>V$_{fin}$</td>
<td>\textit{pa, ponne}</td>
<td>634 tokens; presumably instances of cotemporal ‘then’$^{16}$</td>
<td></td>
</tr>
<tr>
<td>d. pron$_{subj}$</td>
<td>$\emptyset$</td>
<td>\textit{pa, ponne}</td>
<td>V$_{fin}$</td>
<td>...</td>
<td>119 tokens; pronoun as topic</td>
</tr>
<tr>
<td>e.</td>
<td>\textit{pa, ponne}</td>
<td>$\emptyset$</td>
<td>pron$_{subj}$</td>
<td>V$_{fin}$</td>
<td>29 examples, possibly cases of residual verb-final order</td>
</tr>
<tr>
<td>f. wh</td>
<td>V$_{fin}$</td>
<td>pron$_{subj}$</td>
<td>$\emptyset$</td>
<td>\textit{pa, ponne}</td>
<td>6</td>
</tr>
<tr>
<td>g. wh</td>
<td>V$_{fin}$</td>
<td>\textit{pa, ponne}</td>
<td>$\emptyset$</td>
<td>pron$_{subj}$</td>
<td>not attested</td>
</tr>
</tbody>
</table>

Table 1: Distribution of (sequential) \textit{pa, ponne} and subject pronouns in OE/main clauses

- **Examples:**

\begin{enumerate}
\item (38) **Pattern (a.)**
\[\text{[Æfter þysum worde] he weard ðeall gehæled.}\]
\[\text{after this word he was all healed}\]
\[\text{‘After this word, he was all healed.’}\]
\(\text{(ÆLS$_\text{[Sebastian]}$:299.1391)}\)

\item (39) **Pattern (b.)**
\[\text{On his time \textit{pa seonde} he to Rome Wilfrid bispoc to þam pape ...}\]
\[\text{in his time then sent he to Rome W. bishop to the pope ...}\]
\(\text{(ChronE$_\text{[Plummer]}$:675.4.530)}\)

\item (40) **Pattern (c.)**
\begin{enumerate}
\item a. \textit{He dyde pa} his fingras innto his earan,
\[\text{he did then his fingers into his ears}\]
\(\text{(ÆHom$_\text{18:30.2518}$)}\)
\item b. \textit{He sende pa} æt nextan his sunu to, ...
\[\text{he sent then at next his son to}\]
\(\text{(ÆHom$_\text{3:18.412}$)}\)
\end{enumerate}

- **Comment:** Apparently, a sequential/ordered reading of VP-adjoined \textit{pa, ponne} can be forced by adding an adverbial PP such as ‘at next’ as in (40b).

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$^{15}$Total numbers referring to occurrences in the York corpus.

$^{16}$Furthermore, note that clause-internal occurrences of \textit{pa, ponne} often lack a clear temporal interpretation (cf. Kemenade & Los 2006), but rather seem to function as modal particles with a slight adversative meaning, perhaps similar to Gothic \textit{pan} in its use as a second position clitic (cf. Braune & Ebbinghaus 1981, Ferraresi 1997).
(41) **Pattern (d.)**

\[ \text{Hig } \text{þa forlættan } \text{þone wall } \& \text{ heora burh,} \]
\[ \text{they then left the wall and their fort} \]

(Bede_1:9.46.20.406)

(42) **Pattern (e.)**

a. **Da hig wunedon** on Galilea;
\[ \text{then they dwelled in Galilea} \]

(Mt_[WSCp]:17.22.1163)

b. **Hi þa þæt lond forleton.**
\[ \text{they then the land abandoned} \]

(Orosius 44.22; Mitchell 1985: 968)

(43) **Pattern (f.)**

\[ \text{Hu mage we } \text{þonne witan hwænne he cymð?} \]
\[ \text{how may we then know when he comes} \]

(ÆCHom_II,_44:330.117.7430)

- **Comment:** Contrary to what is expected under the analysis developed in this paper, a subject pronoun always immediately follows the fronted verb in root wh-questions. In other words, the pattern wh-V\text{fin-þa/þonne-pron.\text{subj}} is apparently not attested.

- This might be due to a morphophonological requirement (or at least strong tendency) that the (weak) subject pronoun must be adjacent to the fronted finite verb (similar constraints hold in many present-day Germanic V2-languages).

- However, a closer look reveals that in many of the relevant examples, \text{þonne} should rather be interpreted as instances of cotemporal ‘then’:

(44) and ðonne gyt ne cymð se brydguma; Êac swilce ða six ðusend geara
\[ \text{and then still not comes the bridegroom; also the six thousand years} \]
\[ \text{from Adam is ended and then still delays the bridegroom.} \]

[Hu **mage we þonne witan hwænne he cymð?**]
\[ \text{How may we then know when he comes?} \]

(ÆCHom_II,_44:330.117.7427-7430)

- **Speculation:** The order wh-V\text{fin-þa/þonne-pron.\text{subj}} is not attested in the corpus for the following reasons: (i) it would have been quite rare anyway, since it is confined to a special context (a wh-question concerning a foregrounded sequence of actions/events); (ii) for PF-reasons, subject pronouns are preferably adjacent to a fronted finite verb.
References


