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Discourse particles in early English: Clause structure, pragmatics and discourse management

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This article presents a case study on the shifting interaction between clause structure, information structure and discourse organisation in the history of English, as evidenced by the development from Old to Middle English of what we will call discourse particles: discourse-cohesive devices grammaticalised from adverbs. These include the Old English elements *þa*, *þonne*, *nu*, when used in a clause-internal position.

We will show that these discourse particles have the following properties: 1) pragmatically: they express the response of the speaker to the context/common ground shared by speaker and hearer, and thus play a pivotal role in common ground management; 2) relation to clause type: the pragmatic meanings of discourse particles are co-determined by the illocutionary force of the clause types in which they occur, including main clause questions, imperatives, *hwæt* exclamatives, and correlative subclauses; 3) syntactically and information structurally: discourse particles occur in a fixed position in the clause that separates discourse-given from discourse-new information. Discourse particles thus form a subtle lynchpin between pragmatics, discourse management and clause structure.

Some particles were lost in the transition to Middle English, but *then* and *now* continued to be attested in questions and imperatives, in the same clause-internal position as in OE. Towards the end of the ME period, we see a positional shift to clause-final position, though maintaining the discourse linking character of the particle. This change is due to a syntactic change tightening the use of strict SVO word order and narrowing the use of clause-medial material.

1 Introduction

This article presents a detailed treatment of what we will call "discourse particles" in Old English (OE), and it sketches their subsequent development over the Middle English (ME) period.

An example of a discourse particle is the use of *þonne* in questions as in (1) and (2)[1,2,3]:

(1)   (CP:18.133.3.898)
        [following context: if he is himself engaged in those earthly occupations which he ought to blame in others?]
        Hu   gerades mæg **ðonne** se   biscep brucan ðære hirdelican are, …
        how   properly may PRT   the bishop enjoy   the   pastoral   dignity
        'How, then, can the bishop properly enjoy the pastoral dignity?'

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[1] The data references are from the York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE, Taylor et al. 2003). The glosses and translations are based where available on the text editions used. The translations of the examples from Boethius are from Irvine & Godden (2012).

[2] Throughout the article, the presumed particle is glossed as PRT.

[3] The relevant, usually preceding, context is added in present-day English between square brackets.

(2)   (ÆCHom_I,1:181.78.73)
       [You don't know that I am your Lord, and that you are my servant, unless
       you do what I command, and forego what I forbid you.]
       Hwæt mæg hit **þonne** beon. þæt þu forgan sceole?
       what may it   PRT   be   that you forgo must
       'What can it be that you must forgo?'

The meaning of *þonne* as in (1–2) is not its literal meaning as a temporal adverb, since there is no temporal connection. The particle, we will claim, has a pragmatic meaning: it represents a speaker's response to the context: *þonne* expresses surprise on the part of the speaker (writer), and perhaps a degree of exasperation about the circumstances expressed in the context. We will argue in section 3.2 that the particles under discussion here have such a pragmatic meaning contribution. The position of particles is fixed: pronominal subjects and other discourse-given subjects typically precede it; nominal subjects, particularly discourse-new ones, generic and focused subjects, typically follow it (van Kemenade & Los 2006; van Kemenade, Milicev & Baayen 2008; van Kemenade 2009; van Kemenade & Milicev 2012).

We will give a detailed analysis of discourse particles here that is inspired by the literature on their present-day Dutch and German counterparts (Dutch *dan*, German *denn*), which are representatives of what are often called "modal particles" or "discourse particles" (e.g. Abraham 1991; Zimmermann 2011; Coniglio 2012). These particles in Dutch and German come with special properties and restrictions: 1) they have context-sensitive meanings which are semantically bleached with respect to their adverbial counterparts; 2) they occur in some types of sub-clauses but dominantly in main clauses, each of them in specific clause types such as questions, imperatives, exclamatives and are thus taken to be related to the illocutionary force of the clause; 3) they divide the clause into domains for discourse-given and discourse-new information. We have chosen to call the elements under study here "particles", in line with the literature on the present-day continental West-Germanic languages on which we rely, because the Dutch and German cognates of the OE particles under discussion here are so similar in their behaviour. We note, however, that the properties of particles as identified here line up with the more general literature on discourse markers, and on the literature in the English studies tradition, in which elements of this type are more often called discourse markers (e.g. Enkvist & Wårvik 1987; Schiffrin 1987); pragmatic markers (e.g. Brinton 1996; 2017); connectors (e.g. Lenker 2010). The work on Old English particles here is, however, a novel addition to this literature.

We will present a corpus-based study of the texts from 850–1050 of the parsed York-Toronto-Helsinki Parsed Corpus of Old English Prose (YCOE, Taylor et al. 2003) with a detailed description and analysis of three Old English discourse particles: *þa, þonne, nu* (we will motivate this choice in section 3). The article is organised as follows: section 2 will first define the term 'discourse particle' and discuss the properties of particles in present-day Dutch and German, as background and input for our analysis of Old English. Section 3 will be concerned with Old English particles. It will first outline how we arrived at our choice of particles, followed by a detailed discussion of the meaning of particles in relation to the clause types in which they occur, their position in the clause, and an analysis of particles in Old English clauses in relation to their discourse context. Section 4 will sketch the ME development. Section 5 will summarise, conclude and outline some further avenues of research.

2 Background: The properties of discourse particles

Grosz (2016: 336) characterises German discourse particles as "a closed class of functional (= grammatical [AvK ML]) elements that contribute to common ground management in the spirit of Krifka (2008)". This means that they encode pragmatic instructions to the

addressee on the relation between the propositional content of the clause and the common ground between speaker and hearer. Particles are used abundantly in spoken Dutch and German. They are presuppositional in the sense that they express the speaker's response to shared knowledge between speaker and audience in the common ground/context. Particles form a closed word class, they have an invariant form and are uninflected. They are typically unstressed, and they occur in fixed positions in the clause. The particles under study here are optional in the sense that they can be left out without causing ungrammaticality, but their use does add pragmatic meaning. A recent literature survey is Bayer & Struckmeier (2017). The terms "discourse particle" and "modal particle" are often used for the same elements by different authors (e.g. Zimmermann 2011; Coniglio 2012).[4]

The starting point for our discussion of the relation between particles and the Common Ground (CG) is Thurmair (1989), who gives a detailed discussion and inventory of the contextual meaning of individual particles in present-day German, with survey tables of the meaning components of particles, and their occurrence in clause types. Her general take on particles is stated on p. 2 (our translation):

> Modal particles essentially serve to tie in an utterance with the cohesion of the interaction. They serve to refer the interlocutors to shared knowledge, to assumptions or expectations on the part of the speaker or hearer; it can be shown that there is a reference to a previous utterance, or that it allows a characterisation of the importance attributed to the utterance by the speaker. It is to this extent that modal particles each specifically modify illocutionary types (Thurmair 1989: 2)[5]

These general observations are best illustrated by some examples of individual particles. We discuss two of them, which will both prove particularly relevant for Old English as well. Thurmair (1989: 163) observes that the use of *denn* 'then', the cognate of present-day English *then,* Dutch *dan,* Old English *þonne,* marks reference to the immediate context, and is used when something unexpected is questioned (see also Bayer 2012). This is evident from the fact that *denn* is rare in questions that open a dialogue (Thurmair 1989: 165). Consider (3):

(3)   Jo: Willst du   morgen   mitkommen zum   Baden?
              will   you tomorrow come-along to-the pool

         Mia: Hast du **denn** zur   Zeit Urlaub?
              have you PRT   at-that time holiday

         Jo: 'Will you come to the pool tomorrow?'
        Mia: 'Do you have time off then?'

The use of *denn* marks surprise on the part of Mia that Jo would have time to go to the pool. This can easily shade into disapproval/reproach, as in (4):

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[4] We used the term "modal particle" in previous work (Links et al. 2017). The results presented in this article show that the function of particles is primarily a discourse-cohesive one, which in addition expresses speaker response (though not necessarily attitude). This is why we now prefer to use the term "discourse particle".

[5] The German version of the text is: "Im wesentlichen dienen Modalpartikeln dazu, eine Äußerung in den Interaktionszusammenhang einzubinden. Mit ihnen kann auf den Gesprächspartnern gemeinsames Wissen verwiesen werden, auf Annahmen oder Erwartungen von Sprecher oder Hörer, es kann ein bestimmter Bezug zu einer vorangegangenen Äußerung angezeigt werden, oder es kann der Stellenwert, den der Sprecher der Äußerung beimißt, gekennzeichnet werden. Insofern modifizieren die Modalpartikeln auf je spezifische Weise Illokutionstypen."

(4)　　Du bist **ja**　immer noch nicht angezogen! Wir wollten **doch** heute etwas
　　　　you are PRT always still　not　dressed　　we　wanted PRT　today a little
　　　　früher los. Hast du　das　**denn** vergessen?
　　　　earlier off　have you that　PRT　forgotten
　　　　'You are still not dressed! We were planning to leave a little earlier today, didn't
　　　　we? Did you forget?'

Questions with *denn* are often rhetorical. This fits in with Thurmair's account, given that
the answer to a rhetorical question is assumed to be obvious from the context.

　　Foolen (1995; 2006) presents some observations on present-day Dutch that are based in
part on Thurmair (1989), characterising Dutch particles, too, as having context-dependent
meanings, and serving to navigate the common ground between speaker and hearer. They
belong to a closed class of elements, are unstressed, and are positioned between given and
new information. For the particle *nu/nou* (lit. 'now'), the cognate of OE *nu*, Foolen (1995:
65) observes that it indicates impatience on the part of the speaker, as in the imperative
in (5):

(5)　　Kom　binnen.　vs.　Kom　**nou** binnen.
　　　　come　in　　　　　come　PRT　in
　　　　'Come in.'　　　　　'Do come in.'

Vismans (1994) notes that *nou* occurs in questions and imperatives, and he arrives at a sim-
ilar meaning characterisation. The meaning of *nu/nou* in (6) is thus semantically bleached:
a concrete indication of this is that *nu/nou* need not always refer to 'this moment', as it can
be used in combination with another temporal adverb like *morgen* 'tomorrow', expressing
future tense (Vismans 1994: 64).

　　We will follow up the spirit of the literature discussed in this section in our approach
to Old English, more especially because particles in Old English are relatively uncharted
territory and require some careful description first.

3 Old English particles

Discourse particles in Old English are not particularly well-studied so far. Present-day
English has no specific discourse particles in the sense studied here, even though there is
an extensive literature on discourse/pragmatic markers, also called connectors (Schiffrin
1987; Brinton 1996; 2017; Lenker 2010; Haselow 2011; Fraser 2009 and many others).
Van Gelderen (2001) deals specifically with what she calls "mood particles" in the history
of English, which in her treatment seem to include a broader category of adverbs that may
express speaker attitude, in particular epistemic adverbs such as *no doubt, realistically,
truly, certainly*. The elements we call particles here are distinct from epistemic adverbs in
that they form a closed class of grammatical words with a specific position in the clause,
and they are generally taken to be short forms derived (grammaticalised) from adverbs, as
discussed above. This distinguishes them from epistemic adverbs. Haselow (2011, 2012)
argues that utterance-final *then* in questions in present-day spoken English has many of
the properties identified here for discourse particles in Old English (purportedly acquired
since late Middle English), even though their position is essentially different. We will
come back to this in section 4.

　　There is, to our knowledge, no treatment of the Old English particles as defined here that
addresses their properties in a comprehensive, systematic, and corpus-based way. Mitchell
in his monumental (1985) work makes no mention of the particle use, and he treats it as
an adverbial use. The forms *þa* and *þonne* have at least three uses, however. Let's consider
some examples in which all these three uses are attested:

(6)   (Bede_4:4.272.28.2779)
        Þa₁ he   **þa₃** in þæt ealond cwom, þa₂ getimbrede he
        there a-monastery PRT in that island came, then built   he
        then he
        þær mynster, …
        'On coming to that island, he erected a monastery there, …'

(7)   (Bo:33.81.29.1549)
        þonne₁ hio **þonne₃** ymbe hire scippend smeað, þonne₂ bið hio ofer
        then   she PRT   about her Creator thinks then   is   she above
        hire selfre;
        her self
        'When it thinks of its creator, then it is above itself;'

(8)   (LawAfEl:17.44)
        Gif₁ he **ðonne₃** sie idæges   dead, ðonne₂ sitte sio scyld on him.
        if he PRT   is on the same day dead, then   sits the guilt on him
        'If he should be dead that same day, the guilt rests on him.'

(6–8) are examples of correlative clauses. They are introduced by a temporal adverbial sub-clause (in (6–7)) or conditional sub-clause (in (8)). Þa₁ (in (6)), þonne₁ (in (7)) and *gif*₁ (in (8)) are conjunctions introducing the adverbial/conditional subclause. þa₂ (in (6)) and þonne₂ (in (7–8)) are resumptive adverbs introducing the main clause; þa₃ (in (6)) and þonne₃ (in (7–8)) represent what we call the particle use here. The crucial property distinguishing particle use from the adverbial and conjunctional uses thus is that the particle is in a clause-internal position rather than a clause-initial one.

There is no watertight way of distinguishing particle uses from adverbial uses directly on the basis of historical texts. Clear evidence for particle status, however, is their uniform position in the relevant clause types. A further important argument is that the choice of particle clearly co-depends on the clause type, as we will see below. This would be entirely unexpected if particles were adverbs. Particle uses feature particularly in the special clause (illocution) types under consideration here, rather than in, for instance, subject-initial main clauses, which are often pragmatically neutral. Assessing the meaning of particles in Old English texts is of course to some extent a question of interpretation. We will discuss their meaning in detail with specific examples in context for each clause type.

3.1 The choice of particles and clause types

The two most obvious particles to consider are *þa* and *þonne,* as their particle status has already been established on syntactic grounds in previous work. We considered several rather practical criteria to come to an appropriate choice of particles beside *þa,* and *þonne.* The first is whether the potential particle has a cognate in Dutch and/or German which has particle uses. The second is whether we could pinpoint pragmatic meanings. The third is whether its position in the clause is similar to that of *þa* and *þonne.*

We did an exploratory pilot study in order to trace further potential particles in the Old English texts, considering four plausible candidates: *eac* (lit. 'also', cf. German *auch,* Dutch *ook*); *nu* (lit. 'now', cf. Dutch *nu/nou*); þeah (lit. 'though', cf. German *doch,* Dutch *toch*); *giet* ('lit. 'yet' overlapping in meaning with German *doch,* Dutch *toch*). *Nu* does appear to meet these criteria, and it is thus included here – we will present more detail in section 3.2. *Þeah* is most often used in combination with other adverbs (in particular in the combination *swa* þeah 'as though, as if', often a conjunctional use). We therefore decided to leave it for further research. *Giet* used in isolation yielded very few examples; also, *giet* often

co-occurs with *þa* (*þa giet*, lit. 'then yet, then still', with a strong temporal connotation). We leave this, too, for further research. Closer inspection of contexts in which *eac* occurs showed that it really only occurs in its additive meaning. A further addition might have been *la* 'lo', which we initially added because it is often thought to be an expressive element used in combination with the interjection *hwæt*. However, the use of *la* turned out to be much more varied than that of the other particles, pragmatically as well as syntactically, and it is not restricted to specific clause types. We thus decided to concentrate on the three particles *þa* (lit. 'then'); *þonne* (lit. 'then'), and *nu* (lit. 'now').

We now turn to discussion of the clause types included. Thurmair (1989) distinguishes the following main clause types for German: *wh*-questions and *yes/no* questions, imperatives, optatives, exclamatives and *wh*-exclamatives. These constitute the special illocution types in which we should be likely to find particle uses: the illocutionary force of inquiring for questions, ordering for imperatives, wishing for optatives, exclamation for the types of exclamatives (cf. Searle & Vanderveken 1985). We have simplified this set of main clause types as follows: 1) we did not distinguish the two question types in our searches, as the number of examples is relatively limited and the same particles occur in both, with the same readings as far as we can tell. 2) Exclamatives needed some special consideration. The total number of *wh*-exclamatives in the YCOE corpus is very limited and we therefore left them out.[6] The only way of achieving a minimally robust and internally consistent set of exclamatives is the set of declarative main clauses introduced by the interjection *hwæt*. Their exclamative character is often reinforced by a particle; we will see below that this particle is most typically *þa*. Walkden (2013) takes *hwæt* to be a *wh*-word in origin, and sees no real grounds for distinguishing the *wh*-word from the interjection. In terms of word order, *hwæt*-exclamatives waver between main clause and subclause behaviour. They presumably do not present one unified clause type, and may embed question and conditionals. We will come back to this in section 3.2.1. 3) We left out optatives, since these are not tagged as a category in the YCOE corpus and therefore cannot be distinguished in any straightforward way. 4) We added subject-initial clauses to get a clear view of the potential occurrence of particles in a clause type that does not (necessarily) have a special illocution type (this possibility cannot be excluded for subject-initial clauses, but it is fair to assume that most of them are indicative and pragmatically more neutral than the clause types mentioned above).

We have thus included three types of main clause: questions, imperatives, *hwæt* exclamatives. We also included one type of subclause: correlative clauses which are known to feature *þa* and *þonne* quite prominently, as exemplified by (6–8) above. Potential correlatives are coded in the YCOE corpus as adverbial subclauses that directly precede a main clause. These include temporal adverbial clauses with *þa* or *þonne* as the conjunction, as in (6–7), as well as *gif*-conditionals with *þonne*, as in (8). They have a discourse-structuring function, which is reinforced by the use of particles (Links et al. 2017).

3.1.1 A note on the data

The data are based on detailed searches in the syntactically annotated YCOE corpus. We have included the texts from the O2 period (850–950), the O3 period (950–1050), and those dated O23 (texts composed in O2, but the manuscript dates from O3). They are specified in Appendix 1. This choice was made in order to be able to search a sizeable part of the corpus, including all the major 9th and 10th century prose texts, while avoiding the O4 texts (1050–1150), because it is unclear in many cases whether they represent "real" Old English, as

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[6] To avoid any confusion, an example of a *wh*-exclamative is: *what a lovely coat you're wearing!* in which *what a lovely coat* is a constituent in the clause, the object. These are not to be confused with exclamatives introduced by *hwæt* used as an interjection.

they are translations and/or adaptations from earlier texts. The particles studied here occur robustly in the 9th century texts translated at the court of King Alfred the Great. We believe, however, that they are a thoroughly Germanic phenomenon: they have cognates with very similar properties in the present-day West Germanic languages, and section 3.2 will show that they are Germanic in their historical origin as well as their meaning and behaviour. For instance, particle use features particularly prominently in the Old English *Boethius,* which famously represents a non-slavish translation from Latin with frequent gaps, so that the *Vorlage* can often not be identified. Its robust use of particles may also be reinforced by the fact that it contains a lot of dialogue, i.e. spoken language, the favoured context of particles.

We used xml versions of the texts in the YCOE corpus, searching them with XQuery in CorpusStudio (Komen 2009; 2012), creating features for clause type, period, particle, subject type, and the relative position of particle and subject. We queried for clause types as follows:

- main clause questions: CP-QUE which does not contain a complementiser C.
- imperatives: IP-MAT (matrix clause) whose verb is coded as imperative (VBI).
- *hwæt* exclamatives: IP-MAT introduced by an interjection phrase INTJP that dominates a W-pronoun.
- correlatives: adverbial subclauses CP-ADV, which dominate a P, which in turn dominates *gif, þa,* or *þonne* as the conjunction introducing the sub-clause. We included only those adverbial subclauses that precede the main clause they are part of.
- Subject-initial clauses: IP-MAT which has the subject as the first constituent.

For each of these clause types, we searched for particles within the clause: *þa, þonne* and *nu* are coded as ADV^T (temporal adverbs). Our searches yield the results presented in Table 1. The total numbers for the clause type are raw numbers. The number of particles within the clause type was established after some manual correction, eliminating invalid results due to the internal complexity of some clauses comprising a large number of adjuncts, appositions and the like. Table 1 gives the numbers for particles per clause type. To get a clearer view of the frequency of occurrence of particles per clause type, Table 2 gives the number of particles per clause type normalised to their occurrence per 100 clauses. This was done in order to give an approximate comparison of the occurrence of individual particles across clause types. It should be noted that normalisation renders an approximate comparison, as the total occurrence of each clause type varies quite substantially, as seen in the second column in Tables 1 and 2. The cells in Table 2 are shaded in those cases where there are clear match-

Table 1: The use of particles in specific clause types in Old English texts 850–1050.

Clause type\particle	Total	*nu*	*þa*	*þonne*
Question	2,235	161	3	166
Exclamative	438	13	289	20
Imperative	3,479	260	0	182
Preposed temporal adverbial[7]	2,285	1	256	15
Preposed conditional[8]	2,369	50	5	349
Subject-initial clauses[9]	14,724	346	1807	294

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[7] The number of examples here comprises preposed adverbial CP-clauses in which the conjunction (coded as P) is *þa* or *þonne.*
[8] The number of examples here comprises preposed adverbial CP-clauses in which the conjunction (coded as P) is *gif* 'if'.
[9] The query includes subject-initial main clauses with a lexical subject.

Table 2: The use of particles in specific clause types in Old English texts 850–1050, normalised to occurrence per 100 clauses.

Clause type\particle	Total	*nu*	*þa*	*þonne*
Question	2,235	7,2	1,3	7,4
Exclamative	438	3	66	4,6
Imperative	3,479	7,5	0	5,2
Preposed temporal adverbial	2,285	0	11,2	0,7
Preposed conditional	2,369	2,1	0,2	14,7
Subject-initial clauses	14,724	2,3	12,3	2

ing preferences between particles and clause types. Thus, questions and imperatives clearly favour *nu* and *þonne*; exclamatives, preposed adverbial clauses and subject-initial clauses show a strong preference for *þa*; preposed conditionals favour *þonne*.

We will discuss the results in detail in the next section.

3.2 The meaning of Old English particles in context

We will now consider the various particles in turn and discuss their contribution to the meaning and the discourse cohesion of the clauses they occur in, including the question of the choice of particle in relation to clause type. Tables 1 and 2 show that individual particles have clear preferences for clause types. These preferences would be entirely unexpected if they were adverbs rather than particles. This provides initial support for our hypothesis that their meaning contribution is non-lexical and relates to illocutionary force.

Let us start with a semantic comparison of *þa* and *þonne*, which is important because they are etymologically related and have identical literal meanings. Yet, Table 2 shows that they are largely complementary in their choice of clause type: *þa* occurs dominantly in temporal correlatives and *hwæt* exclamatives, whereas *þonne* occurs in questions, imperatives and in preposed conditional clauses. According to the Oxford English Dictionary (entry *thenne, then*, adv.), their base form is the demonstrative pronominal stem *þa*; *þonne* (and related Germanic forms) is derived by the addition of particles such as *ne*. This shared etymology in a deictic form fits naturally with the notion that particles refer to the context. The added particles contribute a further deictic meaning component: the German cognate form *dann* is taken by the Grimmsches Wörterbuch (available at http://dwb.uni-trier.de/de/) to derive from the accusative of the Gothic demonstrative *sa*. Persson (1893) and van Helten (1910) reconstruct an instrumental or deictic form for the suffix -ne. It is tempting to hypothesise that the *–ne* part of *þonne* relates to a negative element, or was perhaps at some point reinterpreted as a negative element; this makes semantic sense as the clause types in which *þonne* occurs are negative polarity contexts (Gertjan Postma p.c.), including questions, conditionals, and imperatives (Giannakidou 1998). This is questioned for imperatives by an anonymous reviewer. Links (2019) shows, however, that imperatives in Old English also occur as the protasis of conditionals, as in (9):

(9)   (CP:51.395.33.2689)
        Berað eowre byrðenna gemænelice betwux iow ðonne gefylle ge   godes æ.
        Bear your burdens in common between you then   fulfil   you God's law
        'If you bear your burdens jointly between yourselves, then you will fulfil God's law.'

Whenever these imperative conditionals are correlative as in (9) they trigger the use of *þonne* as a resumptive pronoun, rather than *þa*. Giannakidou (1998: 130 ff.) explicitly discusses imperatives in terms of non-veridicality: their meaning cannot rely on truth conditions. This confirms, we claim, that the key semantic property shared by *þonne* contexts is non-factuality.

The idea that *þonne* includes a negative element in its etymology thus suggests an important clue to the distinct distributions of *þa* and *þonne*. We hypothesise that *þa* finds its origin in a (spatial) deictic meaning that became temporal, and was subsequently bleached to an exclamative meaning, and, in temporal correlatives, to an action marker, drawing attention to the important new information to come (cf. Links et al. 2017). A key point is that the temporal origin of *þa* implies that the events it sequences have actually happened; they are factual: Mitchell (1985) refers to them as actions completed in the past). *Þa* is, by the same token, descriptive, and it structures narrative discourse, in line with observations about *þa* as an adverb in the literature, e.g. Enkvist (1986); Wårvik (2011; 2013); Links et al. (2017). *Þonne* is used in contexts that are nonfactual: questions, conditionals, and imperatives. We will exemplify this in detail in the following subsections.

Nu is found in the same clause types as *þonne*, but its original temporal meaning 'at this moment, straightaway' ensures that it occurs predominantly in interaction contexts in the first and second person (questions and imperatives). We hypothesise that it was grammaticalised to a reinforcer expressing surprise or irritation in questions, and impatience in imperatives, which may shade into requests, similar to present-day Dutch as discussed above.

3.2.1 Þonne

The reader will recall that the German counterpart of *þonne* is *denn* and occurs in questions where it marks surprise/unexpectedness on the part of the speaker. This reading sits well with the robust use of *þonne* in questions in Old English. An example is (10).

(10)   (ÆCHom_I,_13:285.127.2466)
        [Then said Mary to the angel, "how may that be that I have a child, for I have known no man? I had resolved to end my life in maidenhood;"]
        hu   mæg it **þonne** gewurðan þæt ic butan   weres gemanan
        how can it PRT   happen   that I without man's connection
        cynnan   scyle?
        bring forth shall
        'So how can it be that I, without connection to man, will give birth?'

Þonne in (10) expresses surprise on Maria's part at being pregnant, since she had no contact with a man.

   There is a similar reference to context in the imperative exemplified in (11): *þonne* refers to the follow-up of the (nonfactual) context: the perception is the expected result of the preceding discussion. This example allows an almost causal reading.

(11)   (Bo:38.119.9.2371)
        [But what do you think about those who have no good, and have some evil? Why, you will say he is even more unhappy than the other, because of the added evil. Am I not bound to think so? Then he said: then say that it seems so to you:]
        Ongit **þonne** mid innewearde mode þæt ða yflan habbað symle hwæthwugu
        see   PRT   with inner   mind that the evil   have   always something
        godes on gemong hiora yfle;
        good in among   their Evil
        'Mark then with your inner mind that the evil always have something good among their evil;'

Ðonne is the privileged particle in *gif*-conditionals. (12) illustrates that *þonne* introduces the (possibly negative) expected result which needs to be acted upon, and what needs to be done in that case; it seems to strengthen the condition and could be paraphrased as 'in case that':

(12)   (ÆLS_[Basil]:333.672)
        [Let us lock up this church, and seal the lock, and do ye all afterward watch three
        nights, continuing in prayer, and if the church be opened through your prayers,
        ye shall have it ever afterward, and give no thanks to us.]
        Gif **þone** se   ælmihtiga God nelle   hi eow geopenian, þonne wacie we
        if PRT the almighty God not-wille it you open   then wake we
        ane niht, þone ælmihtigan biddende þæt he us geopenige þa
        one night the   almighty   praying   that he us open   the
        geinsæglodan cyrcan.
        sealed   church
        'If the almighty God will not open it to you, then we will watch one night, praying
        to the Almighty that he will open to us the sealed church.'

Hwæt exclamatives also feature *þonne* to some extent, even though its use is vastly out-
numbered by that of *þa*. In part, this is no doubt due to the fact that quite a few exclama-
tives are part of a series of questions or conditionals. An example of an exclamative that
is part of a conditional is given in (13):

(13)   (CP:45.335.11.2260)
        Hwæt se **ðonne** unryhtlice talað,   se   ðe talað ðæt he sie unscyldig, gif
        Lo   he PRT   wrongly   argues, who that argues that he is innocent if
        he ða good   ðe us God teo gemanan   sealde, him
        he the good(s) that us God to common use gave,   himself
        synderlice ægnað.
        especially appropriates
        'He argues, therefore, wrongly, who argues that he is innocent, if he appropriates
        especially to himself the good things God gave us for common use.'

The examples in this section show that *þonne* refers to the context in its preferred clause
types; it marks surprise/disapproval in questions, and it establishes a causal link in imper-
atives and conditionals, indicating the consequence suggested by the context. The context
is non-factual, however, and the potential result in the follow-up context is dependent on
whether the situation in the context actually obtains.

3.2.2 Þa

Þa is quite robustly attested in *hwæt* exclamatives, and its meaning in that context is derived
from its temporal meaning: (14) on the one hand shows the temporal sequencing, but it
also draws attention to the new information that is the result of the message of the Magi:

(14)   (ÆCHom_I,_5:217.13.897)
        [Then came from the east three magi to the city of Jerusalem, thus asking:
        Where is the king of the Jewish people, who was born? We truly saw his star in
        the east and we have come to pray for him.]
        Hwæt **ða** Herodes cyning þis gehyrende wearð micclum astyred   &   eal
        Lo   PRT Herod   king   this hearing   was   greatly disturbed and all
        seo burhwaru samod   mid him.
        the citizens   together with him
        'Lo, King Herod, hearing this, was greatly troubled, and all the citizens with him.'

Þa is overwhelmingly preferred in preposed temporal adverbial clauses. (6), repeated
here as (15), is a temporal correlative with the first *þa* a subordinating conjunction, the
second a particle, and the third a resumptive adverb. Such correlatives have a temporal,
discourse-sequencing, effect: the subclause is in initial position; the particle reinforces

the temporal sequencing of the whole event, while the resumptive adverb introduces the main clause presenting the new information: the subsequent building of the monastery. Links et al. (2017) show statistically that adding a particle to the temporal adverbial sub-clause promotes the use of the third *þa*, the resumptive adverb. This construction thus has a strong discourse-structuring function, promoted by the use of a particle.

(15)   (Bede_4:4.272.28.2779)
        Þa   he þa   in þæt ealond cwom, þa   getimbrede he þær mynster, …
        then he PRT in that island came, then built   he here a-monastery
        'On coming to that island, he erected a monastery there, …'

We conclude that particle *þa* refers to a factual, temporally sequenced context in exclamatives and correlatives, drawing attention to the following events in these constructions.

   Subject-initial clauses also feature a substantial use of *þa* (12,3 per 100 clauses). We give two examples here, which illustrate that its use in that context appears to be primarily temporal:

(16)   a.   (Bede_4:2.260.13.2651)
              [And bishop Wilfred was also sent from Britain to Gaul to be ordained.]
              He **ða**   eac in Cent mæssepreostas &   diaconas hadode, oðþæt
              He then also in Kent priests   and deacons ordained, until that
              Theodore ærcebiscop to his seðle cwom.
              Theodore archbishop to his see   came
              'He then also ordained priests and deacons in Kent, until archbishop Theodore came to his see.'

        b.   (ÆCHom_I, 15.220.21)
              [Then he said to them: "Why are you afraid, and think various things of me?
              Behold my hands and my feet, which are pierced with nails. Grasp and behold:
              if I were a ghost, I should not have flesh and bones"]
              Se Hælend wearð **þa**   gelomlice ætiwed his   leornung-cnihtum, …
              The Lord   was   then frequently shown to-his disciples
              'The Lord then frequently appeared to his disciples, …'

The temporal character of *þa* in subject-initial clauses implies that, in the absence of any special illocution type, *þa* is simply a temporal adverb. This in turn reinforces our case that particle use of *þa* occurs in special illocution types.

3.2.3 Nu

Nu occurs largely in questions and imperatives. An example of a question with *nu* is (17), where *nu* expresses irritation, yielding a reading like 'is this all?', which in this example is reinforced by the exclamative *hwæt la hwæt*, and by the fact that two further parallel questions with *nu* are added in the following context.

(17)   (Bo:3.9.19.111)
        [And if you so are willing to repent of your folly, I will begin to carry you im-
        mediately and bring you to heaven.]
        þa   andsworode him þæt unrote   Mod and cwæð: **Hwæt la   hwæt**, sint
        then answered   him the sorrowful Mind and said: EXCL PRT EXCL are
        þis **nu** þa god   and þa edlean þe þu ealne weg gehete   þam
        these PRT the benefits and the rewards that you all   way promised the
        monnum þe   þe heorsumian woldan?
        people   that you obey   would
        'Then the sorrowful Mind answered him and said: "Lo, are these now the benefits and the rewards which you always promised to those people who would obey you?'

In imperatives, *nu* at first glance appears to have a purely temporal reading. Imperatives, however, while basically directive, often shade into requests, and the use of *nu* seems to contribute to this. A parallel Dutch request might be *Ga nou mee*, lit. come now along 'please come along' as in (5) above, which is a request rather than a directive. An Old English example of this is (18), which allows a reading 'at this moment', but it could also be interpreted as context-linked request, allowing a reading like 'since you can ask anything of God, please ask that I may know Greek'. This reading is reinforced by the fact that the latter seems a hypothetical situation rather than a factual one.

(18)   (ÆLS_[Basil]:514.817)
        ['I pray thee, venerable father, to grant me one thing; I know that thou art a
        dispenser of whatsoever thou askest of God.]
        Bide **nu** æt Gode þæt ic grecisc cunne.
        pray PRT to God   that I Greek   know
        'Pray now to God that I may know Greek.'

A concrete indication that the meaning of *nu* need not always refer to 'this moment' is that, like in present-day Dutch (Vismans 1994: 64), it is occasionally accompanied by another temporal adverb, sometimes expressing future tense (we found *today*; *tomorrow*; *for six days*; *as long as*, and *henceforth* as in (19)):

(19)   (ÆHom_2:53.276)
        [Afterwards, the Lord saw the man in the temple and said to him: "even now
        that you are healed,]
        Heald þe   **nu** heononforð, þæt þu ne syngie, þy læs þe   þe   sum
        keep   yourself PRT henceforth   that you not sin   lest that that some
        þing wyrse gelimpe;
        thing worse   happen
        'Keep yourself from sinning henceforth, lest something worse should happen
        to you;'

Nu in this context thus seems more like a friendly reinforcer of the imperative.
     Hwæt exclamatives occasionally feature *nu*, as exemplified by (20).

(20)   (Bo:14.32.32.586)
        ["Know this for a truth, that no good thing harms the one who possesses it.]
        Hwæt, þu wast **nu** þæt ic þe ne leoge,
        truly   you know PRT that I you not lie
        'Truly, you know that I do not lie to you'

In correlatives, *nu* occurs with some frequency in *gif*-conditionals. Its meaning is very close to that of *þonne* in *gif*-conditionals: it introduces the potentially negative condition which, in case it is not met, has an ensuing result.

(21)   (ÆLS_[Sebastian]:69.1252)
        [Then he said to the kinsfolk who were seducing the martyrs,]
        gif **nu** þas   gebroðra be eowrum benum gebugað fram heora hælende to
        if PRT these brothers by your   prayers turn-back from their Saviour to
        eowrum hæðenscype, þonne beoð hi   mid eow on sceortere blysse.
        your   heathenism then be   they with you in shorter   bliss
        'If now these brothers, at your prayers, turn back from their Saviour to your hea-
        thenism, then they shall be with you in a short bliss.'

Summing up, *nu* in questions marks surprise and/or irritation on the part of the speaker. *Nu* in imperatives is a reinforcer of the order, which may shade into a request. In correlatives, *nu* introduces the condition that needs to be met, very like *þonne*.

To conclude this section, we have shown that particles are typically responses to the context, and their meaning interacts with clause type. In questions, *þonne* expresses surprise/disapproval, whereas *nu* expresses irritation. These bleached pragmatic meanings support our hypothesis that they are particles rather than adverbs in contexts with special illocutions. *Ðonne* and *nu* seem to be very similar in meaning and use in conditional correlatives, roughly meaning 'in case that' the condition is (not) fulfilled. In imperatives, the meaning of *þonne* and *nu* is distinct, *þonne* yielding a result reading, whereas *nu* reinforces the directive (adding impatience), or toning it down, shading into a request. Exclamatives and temporal correlatives prefer *þa* to affirm the exclamation, drawing attention to the new information following *þa*, whereas *þonne* is occasionally used in exclamatives, for instance when they embed a conditional.

The use of *þa* in subject-initial clauses is adverbial.

3.3 Clause types: Particles in main and subclauses

A final point we wish to address is the question of the distribution of particles in main clauses vs. subclauses. In Present-day Dutch and German, they are used a good deal more frequently in main clauses than in subclauses.

We have seen that the particles *þa* and *þonne* occur in relatively high proportions in the subclause of correlatives, as can be seen in Table 2. The use of particles in correlative clauses is closely related to the special status of these clauses as paratactic: Links et al. (2017) show that they are paratactically adjoined to the main clause; Haegeman (2003; 2012) and Quirk et al. (1985) argue that this is still the case at least for what Haegeman calls peripheral adverbial and conditional clauses in present-day English (2012: 160–61).[10] Correlatives show multiple uses of *þa* and *þonne*, as discussed above in connection with the examples (6–8): they are introduced by *þa/þonne* as conjunctions, and when they feature a particle use of *þa* and *þonne*, this robustly triggers the use of *þa* and *þonne* as a resumptive adverb, as shown by Links et al. (2017) on statistical grounds. A plausible analysis of this state of affairs is that correlatives are more like main clauses in that they have a more extended functional articulation that supports the use of particles, even though they are clearly subclauses in terms of word order. Particle use may be further promoted by the fact that correlatives have a discourse-structuring function: the preposed adverbial or conditional subclause creates the context against which the main clause is to be interpreted. It is against this backdrop that the threefold use of *þa* an *þonne*, as conjunction, as particle, and as resumptive adverb, provides a coherent rationale to the discourse sequence.

3.4 The position of particles

The position of particles is rather fixed, as discussed before. This was established for subclauses by van Kemenade & Los (2006), van Kemenade, Milicev & Baayen (2008): Table 3 presents the results of van Kemenade & Los (2006), as corrected for excluding questions in

Table 3: Order of subject and particle *þa, þonne* in embedded clauses in Old English.

	Subject-particle		Particle-subject		Total
Pronominal subjects	1,116	99.6%	5	0,4%	1,121
Nominal subjects	129	36%	229	64%	358

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[10] We do not at this point wish to hazard any claim that Haegeman's treatment of peripheral adverbial and conditional clauses in Present-day English carries over straightforwardly to Old English correlatives. We leave this matter for further research.

Table 4: The position of subjects in questions with *þa, þonne* and *nu* in Old English.

	Subject/object-particle		Particle-subject/object		Total
Subject personal pro	165	98.2%	3	1.8%	168
Object personal pro	12	60,0%	8	40,0%	20
Nominal subject	88	58.7%	62	41.3%	150
Total	265	79.6%	73	20.4%	338

van Kemenade & Milicev (2012). Table 4 shows that pronominal subjects near-categorically precede the particle in subclauses; nominal subjects are more mixed in their position and at some 36% precede the particle, with some 64% following the particle.

It was also established that nominal subjects preceding the particle are most typically discourse-given subjects, such as demonstrative pronouns, definite NPs, and specific indefinite NPs (and optionally pronominal objects). They also include the pronoun *man*, which van Kemenade & Milicev (2012: 250), following up on van Bergen (2003) argue is an impersonal pronoun rather than an indefinite one. Nominal subjects following the particle are indefinite, generic or focused NP subjects (van Kemenade & Milicev 2012). van Kemenade, Milicev and Baayen (2008) show that these generalisations are robustly significant statistically. We will consider in this section whether they extend to the other clause types examined here, in particular questions and exclamatives. Subclauses, including correlative subclauses, are covered in the results of van Kemenade and associates, in particular in van Kemenade, Milicev & Baayen (2008) and van Kemenade & Milicev (2012). Imperatives are not included because the subject is usually not realised there.

Let us first take a look at questions. Table 4 gives the numbers for questions with *þa, þonne* and *nu*. The objects included in the tables are pronominal objects, which also may occur, optionally, on the left of the particle.

The results in Table 4 are nicely in line with earlier findings and thus extend these to questions. We give examples with a nominal subject preceding *þa* in (22) (with specific reference to the context); with pronominal subject preceding *nu* in (23), and with a (generic) nominal subject following *nu* in (24).

(22)   (ÆCHom_II,_3:23.150.555)
        Hwi com se halga gast **ða** on fyres hiwe   ofer ðam apostolon, and
        why came the holy ghost PRT in Fire's colour over the   apostles,   and
        ofer Criste on his fulluhte on culfran Gelicnysse?
        over Christ on his baptism in to-dove likeness
        'Why did the Holy Ghost come in the colour of fire and in the likeness of a dove over the apostles and over Christ upon his baptism?'

(23)   (CP:42.308.6.2065)
        Wene ge   **nu** ðæt ic ænigre leohtmodnesse bruce, …?
        Think you PRT that I any   levity   possess
        'Do you really think that I employ any levity, …?'

(24)   (ApT:3.10.32)
        Hwæt is **nu** mare ymbe þæt to sprecanne buton þæt cyningas
        what is PRT more about that to speak   except that kings
        æghwano   coman and ealdormen for ðam ungelifedlican wlite
        from-everywhere came and aldermen for the incredible   beauty
        þæs   mædenes,
        of-the maiden
        'What more is there to say except that kings and princes from everywhere hurried there because of the girl's incredible beauty'

Table 5 gives the results for exclamatives introduced by *hwæt*. This presents a picture that is more mixed than that in other clause types.
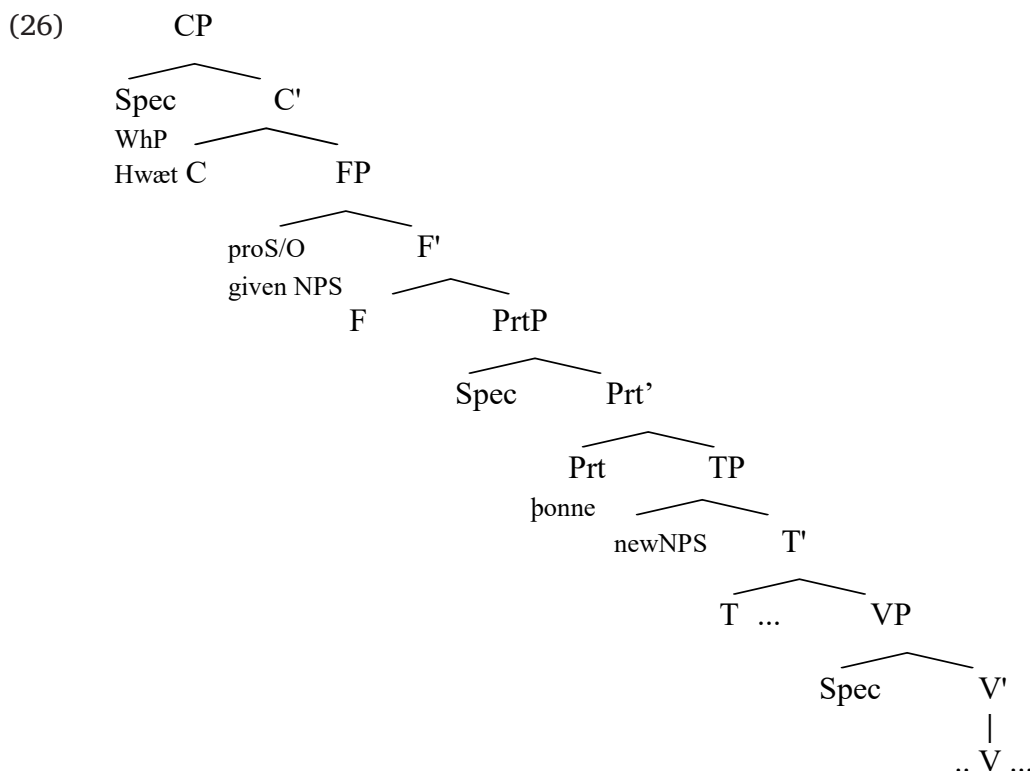
   The results for pronominal subjects are in line with the observations for subclauses and questions in Tables 3 and 4, but those for nominal subjects are not. Remarkably, the 251 instances of subjects following the particle include quite a few given subjects, beside predominantly names.

   An example including a given subject is (25), where the subject *se sceocca* 'the devil' is mentioned in the immediate context.

(25)   (ÆLS_[Maur]:315.1678)
         [Then said he holy man to the hateful devil, 'Christ, who hath power over them all, rebuke thee, thou lying fiend, and author of wickedness.']
         Hwæt ða   se sceocca sona fordwan of his gesihðe mid swiðlicum reame,
         Lo   PRT the devil   soon vanished of his sight   with mighty   outcry
         'So then the devil straightaway vanished out of his sight with a mighty outcry'

Nominal subjects are far more likely to follow *þa* in *hwæt* exclamatives (Table 5, 86,5%) than in questions (Table 4, 41,3%) and in subclauses (Table 3, 64%). We tentatively suggest that, since *þa* as a particle draws attention to the new information to come, this is more emphatically the case in a *hwæt* exclamative clause, which in a sense highlights an event by drawing attention to it. We leave this for further research.[11]

   We conclude that the position of particles is to a large extent consistent across clause types. The earlier finding for subclauses, viz. that the particle typically follows discourse-given subjects and pronominal objects, and precedes discourse-new nominal subjects, is further confirmed for questions and, in part, for *hwæt* exclamatives. This in turn confirms the clause structure assumed in earlier work, as in (26):

(26)

```
           CP
          /  \
       Spec    C'
       WhP    /  \
       Hwæt  C    FP
                 /  \
           proS/O    F'
           given NPS /  \
                    F    PrtP
                        /   \
                     Spec    Prt'
                            /   \
                          Prt    TP
                          þonne  /  \
                            newNPS   T'
                                    /  \
                                   T ...  VP
                                        /  \
                                      Spec  V'
                                             |
                                          .. V ...
```

_____
[11] An anonymous referee suggests that *hwæt þa* may be a fixed collocation. This cannot, however, account for the fact that subject pronouns always appear between *hwæt* and the particle, as seen in table 5.

Table 5: *Hwæt* exclamatives with *þa, þonne*, and *nu* in Old English.

	Subject/object-particle		Particle-subject/object		Total
Subject personal pro	32	100%	0	0,0%	32
Object personal pro	1	2,5%	39	97,5%	40
Nominal subject	39	13,5%	250	86,5%	289
Total	72	22,0%	289	78,0%	361

In main clauses questioned constituents and exclamative *hwæt* are in the first position, Spec, CP. The finite verb in questions and imperatives is in C, the position occupied by conjunctions in subclauses (cf. Den Besten 1983). FP represents the domain that hosts given information, and is part of the C-domain. The higher subject position in Spec, FP precedes the particle (*þa, þonne, nu*), whereas the lower subject position follows the particle.

There is a good deal of independent evidence for the structure in (26), which has been analysed as the key structure underlying the position of secondary negators (Haeberli 1998; 2002; van Kemenade 1999; 2000; 2011); the position of *þa* in Beowulf (van Kemenade 2002); particles *þa* and *þonne* in subclauses (van Kemenade and associates, op. cit.); the mixed nature of finite verb placement in main clauses (van Kemenade 2012; van Kemenade & Westergaard 2012); the agreement asymmetry in the Northern Subject Rule (de Haas & van Kemenade 2015), and it is further confirmed for questions and (in part) for *hwæt*-exclamatives here.

3.5 Discussion

We have so far addressed three key properties of particles: 1) their discourse-linking character; 2) their (pragmatic) meaning and expressive function in relation to the clause type in which they occur; and 3) their form and syntactic position. We now attempt to explicitly unravel the interrelation between these three. We assume that the syntactic structure is an independent piece of grammar that does not in and of itself contain expressive or pragmatic information, or indeed information-structural notions such as topic and focus. We thus do not assume a clause structure along the lines of Rizzi (1997 and subsequent work), in which the full potential of information structural and pragmatic notions are universally encoded as syntactic structure, although we accept that this is in whole or in part correct for languages that have the morphosyntactic properties to support this, such as topic or focus particles (see e.g. Aboh 2004; 2006). Syntax in our view reflects a grammaticalised version of robust structural generalisations available in the input during language acquisition. Particles such as the ones under discussion here may be part of that syntax, as adverbs grammaticalised to functional heads. Grammaticalised functional heads by their nature have undergone loss of lexical meaning; their meaning is bleached to match the context in which they are grammaticalised, relating to e.g. modality, or illocutionary force. These meanings are typically underspecified and context-dependent (see e.g. van Kemenade 1999, on the semantic effect of grammaticalisation). This is the point at which illocutionary force co-defines the contextual meaning of the particle: we have seen above, for instance, that there is a clear distinction between affirmative/assertive clauses (subject-initial clauses, exclamatives, temporal correlatives) and the use of *þa*, which then takes the shape of an assertive particle. On the other hand, clauses whose truth conditions are open (questions, imperative, correlative conditionals) feature *þonne* and *nu*. It is thus interesting to see how the source meaning of the adverb is traceable in its function in OE. This is in line with recurring patterns in grammaticalisation as observed in Bybee et al. (1994).

We have also seen in the previous sections that particles encode expressive meanings, including the speaker's response to the context, such as surprise, disapproval, irritation, exclamation, assertion. We have so far seen evidence for speaker's response, though not for speaker attitude, which is why we hesitate to call the OE particles under discussion here modal particles.

Finally, we have shown in the previous section that particles are discourse-cohesive devices that respond to the common ground shared by speaker and audience. The common ground also includes discourse-given information (pronominal subjects and objects, discourse-given nominal subjects), which typically precedes the particle, which in turn demarcates the right edge of the discourse-given domain in the clause. Pronominal subjects (and optionally, pronominal objects) and discourse-given nominal subjects typically precede the particle and are part of the given domain. Discourse-new subjects follow it. We assume, following Biberauer & van Kemenade (2011), that discourse-given NPs are "big DPs" in the sense of Zeller (2008), featuring a pronominal head which is either absent in new-information DPs or represented by an expletive pronominal element (which typically facilitates new-information structures). We assume, pending further research, that this DP may be moved to a left-peripheral phase edge, triggered by an edge feature. Discourse management then entails that a discourse link is established between the given element and its (extra-clausal) antecedent. Particles thus form a class of grammatical elements that are at the interface of clause structure and discourse management.

4 Middle English and beyond

We now turn to a brief consideration of what happened to the particles under discussion here after the Old English period. The transition from Old to Middle English saw massive losses of the Old Germanic discourse-cohesive devices, as discussed in van Kemenade (2009); Los & van Kemenade (2018). Importantly, the earlier Germanic series of demonstrative pronouns and adverbs was largely lost. This included the *se* paradigm of demonstrative pronouns and determiners, which expressed definiteness and deixis and had provided a separate strategy for pronominal reference in Old English. It also affected the etymologically related set of time, place and manner adverbs (*þa* 'then', *þonne* 'then', *þær* 'there', *þus* 'thus', *swa* 'so', *swylc* 'such') (Los & van Kemenade 2018). *þa* was lost altogether, according to Fischer (1992) because of its highly polysemous use, which van Kemenade & Los (2006); Links et al. (2017) identify as a conjunction, particle and resumptive adverb. *þonne* developed into 'then', but it lost its use as a conjunction (this was taken over by *when*), and as a resumptive adverb (except sporadically in conditionals). It survived in the language robustly as temporal adverb. Likewise, *nu* survives as a temporal adverb, especially in imperatives. We suggest that these losses were primarily due to the massive population changes resulting from the Scandinavian and French invasions, which had a strong phonological and (in the case of Scandinavian) also grammatical impact on the language. It is to be expected that discourse-cohesive devices such as particles, which are unstressed elements and have subtle pragmatic meanings, would be vulnerable under language contact, particularly in the case of substrate influence.

There are indications, however, that particle use was continued over the Middle English period and beyond, particularly in questions and imperatives, the two illocution types in main clauses in which particles were identified here for the Old English period. We searched the Penn Hensinki Parsed Corpus of Middle English 2 (PPCME2, Kroch & Taylor 2000), in an xml version with Xquery. Some Middle English examples are given in (27), a question with *nu* in (27a), with *then* in (27b) and (27c):

(27) a.   (CMANCRIW-2,II.268.368)
            is hit **nu** wisdom to do swa him seoluen;
            is it PRT wisdom to do like him self
            'Is it wisdom to do like himself?'

      b.   (CMROLLEP,63.40)
            How myght þou **þan** wyt   it?
            how might you PRT know it
            'How would you know it then?'

      c.   (CMCTPARS, 291.C1.123)
            Whider shall **thanne** the wrecched synful man flee to hiden hym?
            where shall PRT   the wretched sinful man flee to hide himself
            'where will the sinful wretched man flee to hide himself then?

The examples of imperatives and questions in PPCME (65 questions, 332 imperatives) very prominently feature the particle in the clause-internal position that we saw for Old English as well, that is in the position PRT in (26), in the case of questions clearly separating discourse-given from discourse-new subjects. In the later Middle English and early Modern periods, we also see instances of clause-final particles with a meaning that is very similar to that of *þonne* in Old and Middle English. Let us first consider some background to this.

   Recent work by Haselow (2011) gives an interesting analysis of clause-final *then* in present-day spoken English, arguing for a discourse marker *then*, which is used to link the utterance it accompanies to a preceding utterance, much in the way discussed here for Old and Middle English. An example is given in (28) (Haselow 2011: 6305):

(28)   [ICE-GB s1b-003]
         182 A: do you actually quote any of the actual figures
         183 E: yeah uh I think so
         184 A: read it **then**

According to Haselow, final *then* converts a proposition $p1$ expressed in a preceding discourse segment into a conditional protasis and thus marks the proposition $p2$ it accompanies as motivated by and directly linked to a preceding segment. This relation can be paraphrased as 'if $p1$, as is the case, $p2$ then' (2012: 159).

   Clearly, clause-final *then* is in a very different position from that of *þonne* in Old English and Middle English. Haselow (2012) makes a case that the origin of final *then* is in Middle English, and originates from the optional conjunct *then* in *if…then…* constructions in which the conditional protasis is not expressed in a subordinated *if*-clause, but is implied in a preceding utterance. Two examples that make the condition explicit are given in (29), from The Parsed Corpus of early Modern English (PPCEME, Kroch et al. 2004):

(29) a.   (jetaylor-e3-h)
            It is certain that the man or woman are in a state of weakness and folly **then**,
            when they can be troubled with a trifling accident;

      b.   (deloney-e2-h)
            but if I finde meanes to make you a Lady, what wilt thou say **then**?

Haselow (2012) makes a case that final *then* originated over the ME period in the spoken language. It may be noted that it is hardly attested at all in PPCME2, which covers the period from 1150 to 1500, and sparsely in PPCEME, from 1500 to 1720. Haselow com-

piled a small corpus containing more spoken genres, and arrived at the following timeline for final *then*, as part of a total of different attested uses (2012: 161):

(26)   OE   early ME   late ME   eModE
          final connector *then*   0   3 (3%)   13 (8%)   51 (34%)

Space does not allow further consideration of this development, but we do wish to observe that there is thus a shift from clause-internal *then* as discussed here for OE and ME, to the use of final *then* from ME onward, maintaining the same discourse-linking and pragmatic function. This development presumably persisted, as the use of clause-internal *then* is quite marginal in present-day English. We hazard a speculation that this reflects a syntactic development: the rise of SVO word order over the late OE and ME period; the loss of V2 word order from late ME onward, and the rise of an extensive verbal periphrastic system including auxiliation of the modal verbs and the rise of *do*-support (e.g. Warner 1993; 2006 and references cited there) restricted the word order flexibility in the middle field, ousting particles from the syntactic niche that they had occupied for many centuries. It is striking, however, that they maintained their discourse-cohesive and pragmatic functions in clause-final position. Further refinement of this speculation must await further research. The development of clause-final *then* may be viewed as part of a larger development of what Lenker (2010) dubs the rise of final connectives over the late ME and later periods.

5 Conclusion

This article has made a detailed, corpus-based and explicit case for treating OE *þa, þonne* and *nu* as discourse particles functioning at the interface between syntax (in a fixed position as a grammaticalised functional head, information structure (marking the boundary between discourse-given and discourse-new information), pragmatics (expressing pragmatic meanings) and discourse management (linking the particle to the common ground between speaker and hearer). We have embedded this in a first sketch of an account of the relation between syntax on the one hand, and information structure, pragmatics and discourse on the other hand. Syntax is a bare structural template in which grammaticalised heads such as particles come to mark the boundary between discourse-given and discourse new information. In the syntax, discourse-given information is equipped with a pronominal marker which may be probed by an edge feature in the left periphery. The relation between this material and the extra-clausal context is established outside the syntax. This is true as well for the pragmatic meanings and the discourse management functions of particles: since the meaning of particles is underspecified, and context-dependent, pragmatic meanings arise that are sensitive to the illocutionary force of the clause. This approach, we think, is supported by the fact that particles may maintain their pragmatic and discourse-structuring properties over time, in spite of profound syntactic changes. We have discussed this here in connection with the development of *then* over the Middle English and later periods.

Additional File

The additional file for this article can be found as follows:

  • **Appendix 1.** Texts used. DOI: https://doi.org/10.5334/gjgl.1020.s1

Competing Interests

The author has no competing interests to declare.

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