The noun phrase and the 'Viking Hypothesis'

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ABSTRACT

In this article we use the syntax of the noun phrase to evaluate two competing hypotheses: the traditional account, that Middle English is a West Germanic language with Old English as its immediate ancestor, and Emonds and Faarlund's (2014) proposal, that Middle English is a North Germanic language, the direct descendant of Old Norse. The development of nominal syntax shows that the Middle English noun phrase can be derived only from Old English, not from Old Norse. We examine six nominal characteristics; in each case, we find in Middle English exactly the construction that one would expect given the nominal syntax of previous Old English stages. The evidence from Old Norse shows that, although some of the same constructions did develop in the same way in the attested Norse varieties, the development occurred only at a later stage, too late to have affected the syntax of Middle English.

It is commonly accepted that Old English (OE), a West Germanic language, is the immediate ancestor of Middle English (ME), which, in turn, is the immediate ancestor of Modern English (ModE). However, Emonds and Faarlund (2014) have made the bold claim that ME is directly descended from Old Norse (ON) rather than OE. We call this claim the 'Viking Hypothesis.' Emonds and Faarlund's evidence is mainly morphosyntactic in nature: they examined a wide

range of syntactic characteristics and claimed that the historic evidence shows that ME patterns syntactically with North Germanic languages (both historic and modern) rather than with West Germanic languages; in particular, that ME does not pattern with OE. According to Emonds and Faarlund, the many syntactic innovations of ME are not innovations at all if ME is descended from ON rather than OE. Their conclusion was that ME evolved directly from ON and that OE simply died out after the Norman Conquest. In other words, ME and ModE are North Germanic rather than West Germanic languages.

The response to Emonds and Faarlund and the Viking Hypothesis was immediate and, for the most part, strongly critical. Nevertheless, Bech and Walkden (2016:66) noted that "The proposal, like any other, should be evaluated based on the evidence and argumentation provided." Similarly, Lightfoot (2016:476) stated that, "Their hypothesis is intrinsically interesting and is certainly an empirical claim. Consequently, it will stimulate productive research as scholars seek to build on what [Emonds and Faarlund] have done or to refute the basic claim." Arguing that Emonds and Faarlund often misinterpreted the literature and the data, and using empirical evidence that, for the most part, has already been published, the responses to Emonds and Faarlund in Barnes (2016), Bech and Walkden (2016), Stenbrenden (2016), and the various contributions to the 2016 special issue (6.1) of *Language Dynamics and Change* (by Font-Santiago and Salmons, van Gelderen, Holmberg, van Kemenade, Kortmann, Los, McWhorter, Thomason, Trudgill), collectively demonstrated that the evidence presented by Emonds and Faarlund fails to support the claim that ME descends from ON.

This paper is to be understood as a test of Emonds and Faarlund's hypothesis on their own grounds rather than as a review of their work. Thus, for example, we do not discuss their basic tenet that syntax is not easily borrowed (2014:60–61). We posit that to refute the Viking Hypothesis on empirical grounds, it is not sufficient to show that Emonds and Faarlund's descriptions and analyses of OE syntax are incorrect and/or misinterpreted: in many cases, as in the much-discussed change from OV to VO order, this simply means that the syntactic property appears in both OE and ON, and, thus, either language could be the ancestor of ME. Instead, the focus should be on the syntactic properties of ME that are continuations of those in OE but different from those of the dialect of ON spoken in England before the Norman Conquest; this is the only evidence that can falsify the Viking Hypothesis.

We find that noun phrase syntax provides precisely such evidence, because it demonstrates continuity from OE to ME in various distinct areas, all of which have analogous trajectories of change in some old Nordic languages, but, crucially, not at the relevant time.

BACKGROUND: POLITICAL AND LINGUISTIC HISTORY

According to the *Anglo-Saxon Chronicle*, the Danish invasions of England began in 787, and, for more than two centuries, there were periods of military

confrontations (attacks, plundering, battles, with victories on both sides) but also peaceful meetings and agreements (pledges, oaths, treaties). In 1016, King Cnut became king of all of England, and the land was divided between the Danes (King Cnut in the north, in the area that became known as the Danelaw) and the English (King Edmund in Wessex). This situation ended with the Norman Conquest in 1066. According to Townend (2002:2), the Scandinavians and the Anglo-Saxons before the Norman Conquest were not separated geographically, particularly in the Danelaw. He contends that the Anglo-Saxon-Scandinavian communities were bilingual, even though individual speakers were not. In other words, while there were no (or very few) bilingual speakers, the two languages were mutually intelligible. This view is supported, at least to some extent, by many other scholars (e.g., Björkman, 1900–02; Blake, 1992; Fellows-Jensen, 1975; Hogg, 1992; Jespersen, 1956; Strang, 1970; Warner, 2017:337–339). Various types of evidence are provided for Townend's claim, of which we present two here: first, Townend (2002:4–9) described situations, documented in extant texts from the period, that require mutual intelligibility. It could be argued that interpreters may have been used to facilitate these communications. However, Townend found no mention of interpreters in the described episodes, in contrast to other situations where interpreters are needed and explicitly included.

As the second type of evidence, Townend (2002:200) pointed out that, as frequently noted in the literature, some loanwords have been borrowed from Norse into English with their inflections intact. This shows that the English were not able to parse Norse inflectional morphology.

It is clear that the political, sociological, and linguistic situation during this period was complex with effects that are not yet understood. In the sections that follow, we begin to investigate the linguistic development that occurs during and after this contact period.

MATERIALS

We start by abandoning the assumption that, if the empirical evidence fails to support Emonds and Faarlund's claim, the traditional view of a direct descent of ME from OE remains valid. We assume instead that the traditional account and the Viking Hypothesis are equally plausible,[1] and the only interesting data are those which support one but not the other. Therefore, any evidence that fails to support Emonds and Faarlund but is not overt evidence in favor of the traditional account is considered irrelevant to our argument.

Using this approach, we compare the syntax of the noun phrase in ME to that of the noun phrase in OE and in the available sources of old Scandinavian languages. It must be noted that the quantity and the quality of the available materials are not equivalent. In fact, while there is an abundance of sources for OE from the eighth century on, with a gap of about 100 years immediately following the Norman invasion, there are no surviving documents written in the variety of Scandinavian spoken in the Danelaw (which we call Danelaw Scandinavian,

DScand), apart from a few runic inscriptions. Therefore, the two possible immediate ancestors of ME, namely OE and DScand, cannot simply be compared to evaluate their respective syntactic distance from ME. Rather, OE must be compared to what can be reconstructed based on the attested Scandinavian varieties. Emonds and Faarlund refer to the Scandinavian spoken in England as "Norse," and to the direct ancestor of ME as "Anglicized Norse"; they use the term "Old Norse" for syntactic comparisons. However, ON is West Nordic (Icelandic and Norwegian[2]), while the language spoken by the Danes that colonized the Danelaw belongs to the East Nordic branch (Danish and Swedish); hence, Old Danish (ODan) and Old Swedish (OSw) are more relevant for the reconstruction than ON. Note that it is possible that Danish and Swedish had not yet separated in the twelfth century, as argued, for example, in Ottosson (2002:789), even if ODan is characterized by an advanced morphological simplification witnessed in its earliest manuscripts, which sets it apart from all the other Old Nordic languages (see in particular the detailed comparison of Nordic languages at various stages in Mørck [2005]).

For this study, the evidence for OE and ME was collected from the available literature and from the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE - Taylor, Warner, Pintzuk, & Beths, 2003) and the *Penn-Helsinki Parsed Corpus of Middle English, second edition* (PPCME2 - Kroch & Taylor, 2000). For Scandinavian, we used literature on ODan, where available. However, more research relevant for our purposes has been conducted on OSw, which will therefore have a prominent role as the representative of the East Nordic branch in our reconstructions of DScand. The data were also compared to the available descriptions of the relevant phenomena in Old Icelandic (OIcel) or ON and, where possible, searches were conducted on the *Icelandic Parsed Historical Corpus* (IcePaHC - Wallenberg, Ingason, Sigurðsson, & Rögnvaldsson, 2010). Where relevant, we also used the evidence provided by the corpus of Scandinavian runic inscriptions found in Britain[3] (Barnes & Page, 2006), even though they are sparse, formulaic, and sometimes of dubious interpretation.

THE ORIGIN OF ME NOUN PHRASE SYNTAX

The morphological realization of the definite article

If ME is, in fact, a Scandinavian language, as proposed by Emonds and Faarlund, it is peculiar in one respect: in almost all the Scandinavian languages, the definite article is realized as a postnominal affix,[4] while it is a prenominal independent morpheme in ME, with no exceptions. The Scandinavian definiteness affix has been the subject of much debate, starting with the Neogrammarians, points of disagreement being the dating of its origin and the path and structural changes leading to its reanalysis as an affix. Nevertheless, there seems to be a consensus that the definiteness affix originates from the free demonstrative *(h)inn*, which could appear in prenominal position but is also found postnominally where it

was probably an enclitic on the noun; the enclitic was eventually reduced to a suffix.[5]

Although it may be tempting to assume that the absence of the definiteness suffix in ME[6] may be due to contact with OE, Emonds and Faarlund were explicitly skeptical about this possibility (Emonds & Faarlund, 2014:153). Their proposal, instead, was to treat the absence of the definiteness affix as a case of loss of inflectional morphology, explained together with the general simplification and loss of inflections that affected many Western European languages at the time, Scandinavian among them (Emonds & Faarlund, 2014:150). There are two problems with this account. First, since in this kind of process conservative and innovative forms often co-exist for some time, one would expect to find at least a few cases of postnominal articles in ME, but this is not the case. Second, there is evidence that the definiteness marker in Old Scandinavian languages was still a clitic at the relevant time, and not an inflectional affix. In fact, in contrast to what is observable in modern Scandinavian languages, in ON, OSw, and ODan, the definiteness marker agrees in gender and number with the head noun (see Delsing, 2002:930, Table 104.10; Faarlund, 2009:620, Table 1). The ability to carry their own inflection is considered by Faarlund (2009:626) a characteristic of clitics as opposed to affixes. Further evidence may come from the establishment of the modern tonal system of Swedish and Norwegian (see Faarlund, 2002:730; Riad, 1998:65–66), which is characterized by the existence of two word accents, accent 1 and accent 2. The latter is the marked member of the tonal opposition, and requires a disyllable stressed on the first syllable, which can be a monosyllabic root with an added inflectional affix. One-syllable words with the definiteness suffix are now disyllables, but were treated as monosyllables (i.e., N + article) by the tonal rule creating accent 2 contours, and therefore have accent 1.[7] Riad (1998:55) dated the establishment of the tonal system between 1000 and 1200.[8]

The absence of a definiteness suffix in ME is therefore difficult to explain in Emonds and Faarlund's framework, while it is naturally predicted by the traditional hypothesis that ME is a continuation of OE.

The establishment of the definite article

It is generally accepted that the oldest English text exhibiting the modern definite article, the invariant form *þe*, is the *Peterborough Chronicle* (*Peterb*), dated about 1150. This is certainly true only if a specialized morpheme that is phonologically—or at least graphically—distinct from the distal demonstrative, as in (1), is considered an article:

(1) Þa com Henri abbot & uureide **þe** muneces of Burch to **þe** king forþi
    ðat he uuolde underþeden **ðat** mynstre to Clunie, (CMPETERB, 54.371)
    'Then Abbot Henry came, and betrayed **the** monks of Peterborough to **the** king, because he would subject **that** minster to Clugny'

It is the absence of such a specialized morpheme that lies behind the traditional assumption that "OE did not have a definite article" (Mitchell, 1985:133, fn. 87). However, in OE, prose definiteness is generally obligatorily marked on subjects and objects, with the exception of a few well-defined contexts as, for example, inalienable possession, coordinations, kind-referring nouns (see, Allen, 2008:98–100; Crisma, 2011:186–189; Traugott, 1992:171–172). Things are different in early OE poetry, which witnesses an older stage of the language: in poetic texts, arguments not overtly marked for definiteness could be interpreted as definite, even when anaphoric, as shown in (2):

(2) […] Sigemunde   gesprong   (Beow. 884)
          Sigemund-DAT   rose

     æfter deaðdæge   dom   unlytel
     after death-day glory great

     syþðan wiges   heard   wyrm   acwealde, (Beow. 886)
     since   war-GEN   hard-NOM   serpent-ACC killed

     hordes   hyrde […]
     treasure-GEN   guardian

     hwæþre him   gesælde ðæt þæt swurd þurhwod (Beow. 890)
     yet   him-DAT   happened that *SE* sword went-through

     wrætlicne   **wyrm**   þæt hit on wealle ætstod
     wondrous-ACC   serpent-ACC   that it   on wall   stayed

     dryhtlic   iren;   **draca** morðre   swealt.
     lordly   iron;   dragon murder-DAT   died.

     Hæfde aglæca   elne   gegongen (Beow. 893)
     Had   fierce-warrior strife/courage-DAT   gained

     þæt he beahhordes   brucan moste
     that he ring-hoard-GEN   enjoy   was-able

     selfes   dome;
     self-GEN   choice

          […] **Wyrm** hat gemealt (Beow. 897)
               Serpent hot melted

'no little fame arose for Sigemund after his death, since the brave-in-battle had killed <u>a dragon</u>, the keeper of a hoard; […] however it was granted to him that the sword pierced **the wondrous serpent**, so that the noble iron stood fixed in the wall; **the dragon** died in the slaughter; the fearsome one had earned by courage that he might enjoy the ring-hoard at will; […] **the serpent** melted in its heat'

In this passage, a dragon is first mentioned in line 886 (underlined *wyrm*), and then mentioned again in lines 891, 892, and 897 (boldface [*wrætlicne*] *wyrm* or *draca*), where the interpretation is [+definite] 'the dragon,' but the nouns appear bare. Note also the bare singular *aglæca* in line 893, which refers to Sigmund, mentioned a few lines above. This is precisely the kind of usage of bare nouns that is basically absent from OE prose texts.[9] This means that, while a dedicated definite article is established in English in 1150, obligatory definiteness marking already characterized earlier stages of the language, namely OE prose.

If ME is a continuation of OE, the establishment of the definite article would reduce to the morphological split of *se, seo, þæt*, into the two specialized morphemes *þe* and *þat*. Since OE *se, seo, þæt* covered the domain of both, there would not be any dramatic syntactic change apart from the extension of contexts requiring the obligatory presence of overt marking.

Conversely, if ME is considered (a continuation of) DScand, the article in *Peterb* would appear as an abrupt innovation. In fact, on the one hand, it has been argued that the Scandinavian suffixed definite article originates around the same time as the invariant *þe* of *Peterb*: "[…] One may […] assume that by 1100 the practice of formally marking definiteness in nouns had spread to all parts of the Scandinavian language area" (Perridon, 2002:1019). On the other hand, Old Nordic languages show obligatory marking of definiteness at a much later time, as we will show directly.

According to Jensen (2016:263–267), the Nordic variety presumably closer to DScand, namely ODan, still shows optional definiteness marking in the fourteenth century. Her study does not present any quantitative data, but we are told that bare nouns could appear as arguments, and, in particular, that the article was only optional with nominals interpreted as definite.

(3) Varthær **kunu** døth. oc lifwær **barn** æftær. oc (…) um them
    becomes woman dead. and lives child after. and (…) if them

    skil um. ath **barn** fic cristindom (SL)
    divides about that child got christianity

    'If **a woman** dies and **a child** survives her,   and (…) there is a disagreement
    as to whether **the child** was christened'   (Jensen, 2016:264)

Commenting on the example in (3), Jensen stated that, in ODan, bare nouns "represent the prototypical way of introducing and continuing discourse referents—no determiner is needed" (2016:264). Although some examples are provided of post- and prenominal definite articles, the latter only occurring before adjectives, Jensen reported that the use remains "sporadic" (266), with "examples of nouns with enclitic articles […] few and far between" (267). Some quantitative evidence for a steady increase in the overall use of articles in the history of Danish is provided by Norde (1997:106, fn 14), quoting Skautrup (1944:269) and reported here in Table 1.

	bare noun	indef. article	def. article
Skanske Lov (1174)	92%	0%	8%
Jyske Lov (1241)	90%	0%	10%
Charters ea. (1450)	75%	10%	15%
L. Holberg (1684–1754)	41%	22%	37%
H.C. Andersen (1805–75)	33%	13%	54%

The same figures from Skautrup are also cited in Delsing (2002:938) and compared to analogous data from Larm (1936:24) for three OSw manuscripts: AVL, where 0.5% of the nouns bear the suffixed definite article; UL, where the rate is 5%; ÖgL, where it is 7.5%. Delsing commented that such low figures cannot be due to style or register, because similar patterns are found in texts of different genres, and Delsing concluded that in OSw and ODan "the article developed as an innovation in the 13th c." (2002:939).

For OSw, similar observations are presented in Skrzypek (2012). Although Skrzypek's study does not provide quantitative data, some of her observations make it possible to date the various stages of development of the definite article and to compare them with English.[10] The situation described for OSw seems to be analogous to Jensen's description of ODan: in the earliest texts, for example, AVL and Bur, there are instances of the definiteness suffix, but it is not obligatory even in anaphoric contexts (Skrzypek, 2012:82, 93). An example of inconsistent use is presented in (4), where the angel introduced in the first line is then mentioned again twice, the first mention unmarked, the second marked:

(4) guz   ængel teþes andree   ok baþ han fara   tel burgundiam
     god's angel shown Andreas and bade him travel to   Burgundy

ok hialpa maþeo   andreas sagþe sik eigh vita   væghen en
and help   Matthew Andreas said self not know way-DEF but

ængel baþ han ganga tel strand ok fara   i førsta skip han
angel bade him go   to beach and travel in first ship he

funne **Engel|en|** var hans leþsaghare
find   Angel-DEF   was his guide   (Bur 133)

'God's angel has appeared to Andreas and asked him to travel to Burgundy and help Matthew. Andreas said he did not know the way but **the angel** asked him to go to the beach and take the first ship he would find there. **The angel** was his guide'. (Skrzypek, 2012:93–94)

Table 2 reproduces Skrzypek's Table 31 with her summary of the development of the definite article in Swedish (Skrzypek, 2012:154). In Period I (1225–1375; see fn. 10), the suffixed definite article is encountered in anaphoric contexts, only

marginally as a uniqueness marker and never with generics (first $+/-$ column); it is never obligatory in any context (fourth $+/-$ column). It becomes obligatory in anaphoric contexts only in Period II (1375–1450, fifth $+/-$ column), and it is only in Period III (1450–1526) that it is generalized as an obligatory uniqueness marker (sixth $+/-$ column).

TABLE 2. *Skrzypek's summary of the development of the definite article in Swedish*

Stages of grammaticalization of the definite article	Functions	Spread to context			Obligatorification in context		
		Period I	Period II	Period III	Period I	Period II	Period III
Stage II	direct anaphoric marker	+	+	+	−	+	+
Stage III	indirect anapho-ric marker	+	+	+	−	+	+
Stage IV	Uniqueness marker	(+)	+	+	−	(+)	+
Stage V	generalized article	−	(+)	(+)	−	(+)	(+)

In addition, Skrzypek (2012:95–97) suggested that ON in the thirteenth century was not different from OSw. This is also the position of Faarlund (2004:55; 2005:1159), who claimed that the unmarked form for a unique specific referent in ON was a bare noun, as in the following example:

(5) **jarl** var vinsæll við búendr
    earl.N was friendly.M.N with farmers.A
    '**The earl** was popular among the farmers' (Hkr I.343.9) (Faarlund, 2004:59)

Lander and Haegeman (2014) confirmed this observation: they tested ON against a series of properties that define DP languages (languages with articles such as Present-Day English, PDE) and NP languages (languages without articles, such as Latin and most Slavic languages).[11] They showed that ON patterns with the latter; therefore, the definiteness marking that sometimes appears in ON (and in other old Nordic varieties) cannot be considered an article.

Figure 1 summarizes the parallel development of the definite article in English and the three Nordic languages discussed in this section.

Even with the obvious limits imposed by reliance on medieval manuscripts, the relative chronology of the establishment of the definite article in English and Nordic offers one clear piece of evidence: obligatory definiteness marking is a syntactic property that is present in the earliest attestation of ME, *Peterb*, but is absent in ODan, OSw, and ON, even though the earliest witnesses for these languages are at least a century later than *Peterb*. Thus, it contradicts the claim of Emonds and Faarlund (2014:61) that ME exhibits no OE characteristics not shared by Norse.
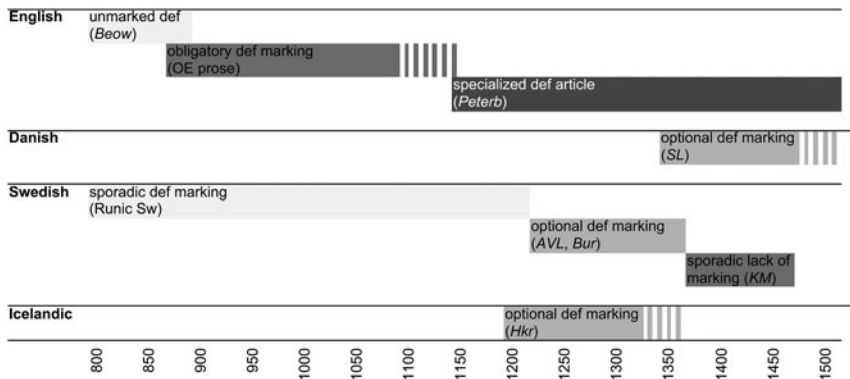
English
unmarked def (*Beow*)
obligatory def marking (OE prose)
specialized def article (*Peterb*)

Danish
optional def marking (*SL*)

Swedish
sporadic def marking (Runic Sw)
optional def marking (*AVL*, *Bur*)
sporadic lack of marking (*KM*)

Icelandic
optional def marking (*Hkr*)

800 | 850 | 900 | 950 | 1000 | 1050 | 1100 | 1150 | 1200 | 1250 | 1300 | 1350 | 1400 | 1450 | 1500

FIGURE 1. Establishment of the definite article in English and Nordic.

Obligatory definiteness marking is not a property that can be reconstructed for DScand, therefore the definite article in *Peterb* and later ME texts cannot be considered a Scandinavian trait. Rather, the sparseness or virtual absence in OE prose of bare subjects and objects with a definite (and even anaphoric) interpretation, such as the ODan, OSw, and ON in (3)-(5), make it plausible that the definite article in ME is a continuation of OE.

The indefinite article

Similar evidence comes from the establishment of the indefinite article. In OE, bare singulars with an indefinite interpretation are commonly attested:

(6) &   bær   **hæt**   on   his   heafde,
    and   bore   hat   on   his   head
    'and bore **a hat** on his head'   (coorosiu,Or_4:10.107.27.2243)

Crisma (2015:142) argued that one can identify (at least) three stages in the development of the indefinite article in English:

- Stage One (essentially analogous to modern Icelandic): *an* is used only as the number 'one', and indefinite singulars typically occur bare.
- Stage Two (similar to modern spoken Hebrew): *an* acts as an existential operator which marks specificity; indefinite singulars taking wide scope or interpreted as specific are obligatorily introduced by *an*, while nonspecific nominals still occur bare.
- Stage Three (the grammar of PDE): *a(n)* is established as the "indefinite article." At this stage, bare singular count nouns become ungrammatical regardless of their specific/non-specific/generic interpretation.

According to Crisma ([2015](#):134–136), in OE the first two stages are attested, and they are distinguished by the presence/absence of *an* with specific indefinites, or indefinites taking wide scope:

(7) a. Stage One:

þeos hæfde **geongne sunu**, se   wæs næmned Eumorfius.
this had   young   son who was named   E.
'He had **a young son** called Eumorfius' (cogregdC,GDPref_and_4_ [C]:36.313.28.4690)

b. Stage Two:

se cynincg sende sona **ænne þegen**, Heliodorus gehaten,   to
the king   sent soon a   servant H.   named to

ðam halgan temple
the holy   temple   (coaelive,ÆLS_[Maccabees]:760.5327)
'the king immediately sent **a servant** named Heliodorus to the holy temple'

At both stages, the use of *an* with NPs taking narrow scope is disfavored, while it is categorically excluded with generics:[12]

(8) Stage One and Two:

a. narrow scope reading
Þa nolde   Basilla **brydguman** geceosan nænne butan Crist
then NEG-wanted B.   husband   choose   none but   C.

þe heo gecoren hæfde
that she chosen had   (coaelive,ÆLS_[Eugenia]:365.409)
'Then Basilla did not want to choose **a husband**, none but Christ that she had chosen'

b. generic reading
and forcuðlic hit bið þæt **cyning** beo   unrihtwis
and despicable it is that king   be-SUBJ unjust
 'It is despicable that **a king** be unjust' (coaelive,ÆLS[Pr_Moses]:123.2933)

The relevance of the type of nominal in the use of *an*, as well as its diachronic development, is presented in [Figure 2](#). Note that, already in OE, from Early West Saxon (EWS, before 950) to Late West Saxon (LWS, after 950), there is a visible quantitative change in the use of *an* with all types of nominals but generics.

The first sporadic cases of *an* with generics are observed in ME at M1 (1150–1250) and become the norm at M3 (1350–1420), with M2 (1250–1350) being unusable because of the paucity of data for this period. At M3, then, the situation is essentially Stage Three, that of PDE:
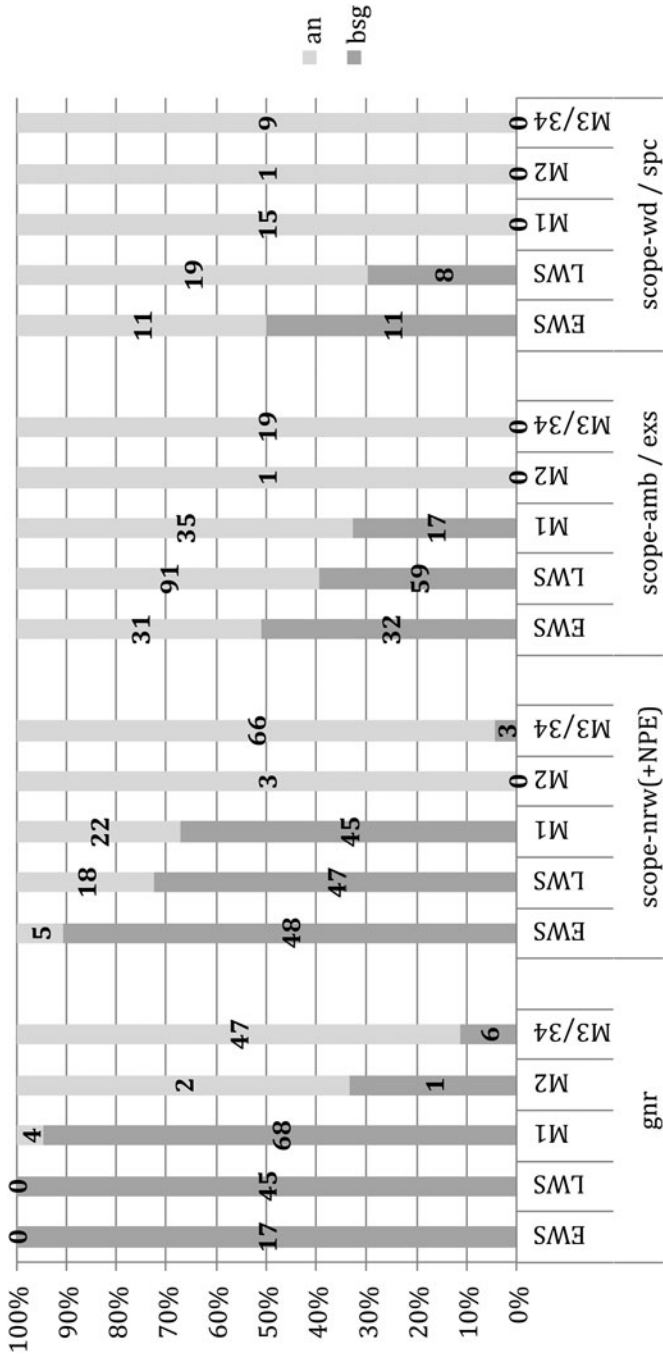
FIGURE 2. Frequency of bare singulars and nominals with *a(n)* in OE and ME (data extracted from Crisma [2015:133] and Crisma & Pintzuk [2016:170]).[13]

(9) Stage Three

  a. generic reading
  he seith that **a trewe freend** is a strong deffense
  'he says that **a true friend** is a strong defence'   (CMCTMELI,223.C1.230)

  b. narrow scope reading
  And everi man oghte to doon his diligence and his bisynesse to geten hym **a good name**
  'and every man should make it his commitment and his care to have **a good name**' (CMCTMELI,238.C2.835)

  c. No Presupposition of Existence (NPE)
  if thou hast power to parfourne **a werk** of which thou shalt repente […]
  'if you have the power to perform **a work** of which you shall repent' (CMCTMELI,224.C2.306)

The aggregated data in Figure 2 are extracted from Crisma (2015:133) and Crisma and Pintzuk (2016:170), which presented data for individual texts. The impression of optional use of *an* is the result of different texts having Stage One, Stage Two, or Stage Three grammar, or texts where two grammars coexist, as is usual during periods of syntactic variation and change. Most important for the present purposes is the fact that the data show a smooth transition from OE to ME: the data in the M1 period are exactly what one expects to find given the OE development *if ME is a continuation of OE*. While these data empirically support the traditionalist hypothesis of ME being a continuation of OE, they do not automatically falsify the Viking Hypothesis: if DScand were at Stage Two as well, this particular piece of syntactic evidence would turn out to be irrelevant in deciding between the two hypotheses, for ME could follow either from OE or from DScand.

Again, DScand must be reconstructed. For ODan, we once more rely on the description by Jensen (2016:268–271). Although she did not provide quantitative evidence, she reported that the first sporadic occurrences of *en* used as the indefinite article rather than as a numerical appear at around 1300:

(10) Swa com **en røst** af himæn (SC, from Jensen, 2016:269)
      so came **a voice** of heaven
      'Then came a voice from Heaven'

This means that, around 1300, ODan was basically at Stage One with incipient Stage Two. Jensen further wrote that, by the fifteenth century, the modern usage is established (269).

Skrzypek (2012) presented solid evidence for the development of the indefinite article in OSw. Her focus was exclusively on the interpretation and the syntactic distribution of nominals with *en*, and she did not provide quantitative data comparing bare singulars with indefinites introduced by *en*. Nevertheless, some of her observations make it possible to date the various stages of development of

the indefinite article and to compare it with what takes place in English. She showed that Swedish followed a path of development of the indefinite article that is analogous to the one described for English in Crisma (2015) and Crisma and Pintzuk (2016), but we will show once more that the chronology provides crucial evidence for our purposes.

According to Skrzypek (2012:76, 158), in runic materials and in the oldest OSw text of Period I (AVL), *en* is used exclusively as a numerical; in other words, Swedish was at Stage One at least until 1225. Skrzypek found the earliest attestation of non-numerical *en* in Bur (dated 1276–1307):

(11) **En vælburin ungar suen** forlæt værudena ok folgþe   andream
     EN well-born young boy   left world-DEF and followed Andreas
     '**A well-born young man** left the world and followed Andreas' (Bur 133, from Skrzypek, 2012:164)

At this stage, however, "more often than not it is only the bare noun that can be found" (Skrzypek, 2012:162). This indicates that Bur was basically at Stage One with incipient Stage Two, analogous to the coeval ODan in (10). In later texts (Period II, 1375–1450), *en* becomes the norm with presentative and specific[14] nominals and is only sporadic in nonspecific contexts (Skrzypek, 2012:175), as in (12). That is, Period II texts are at Stage Two with sporadic Stage Three.

(12) Fae   keysarin   mik i morghin **spiwt** thz som
     give-COND emperor-DEF me   in morning javelin DET which

     manz   byrdhe   är
     man-GEN   burden   is

     'If the emperor would give me tomorrow **a javelin** that is a burden to carry for **any man**' (KM 257, from Skrzypek, 2012:180)

In sum, we see again that English and Swedish develop along similar trajectories, but when we compare the two languages at any point in time, we find that English is consistently more advanced than Swedish.

The status of West Nordic is less clear. On the one hand, Faarlund (2005:1159) wrote: "The indefinite article is missing altogether in Old Norse." On the other hand, in an earlier publication, Faarlund (2004:74) suggested that *einn* 'one' is used as a marker of specificity in ON "meaning 'a certain' or 'some.'" The two examples he provided are from *Barlaams ok Josaphats saga*, dated 1275, and from *Gunnlaugs saga ormstungu*, dated 1300, that is, they are coeval with the earliest nonnumerical examples of *en* found in ODan and OSw, quoted in Jensen (2016:269) and Skrzypek (2012:164). However, since Faarlund does not comment on the frequency of examples with *einn* as opposed to bare singulars, it cannot be established whether ON was solid Stage Two like certain Late OE texts, or incipient Stage Two, like East Nordic. He provided a further example from *Barlaams ok Josaphats saga* to show that, in ON, *einn* was not used with

nonspecific reference; in our terms, at the end of the thirteenth century, no inception of Stage Three was observable in ON.

Figure 3 presents the relative chronology of the establishment of the indefinite article in English and the three Nordic varieties discussed in this section. It shows that the earliest attested varieties of Nordic are at a stage of development of the indefinite article that is less advanced, not only of coeval ME texts, but also of LWS. In fact, the precursor of the indefinite article informally describable as a mark of specificity was already used in English at the end of the tenth century but only appears in ODan, OSw, and maybe ON at the end of the thirteenth century. Since it is reasonable to assume that DScand lacked this mark of specificity as well,[15] we conclude that the indefinite article that was eventually established in ME in the fourteenth century is a continuation from OE and cannot be a continuation from DScand.
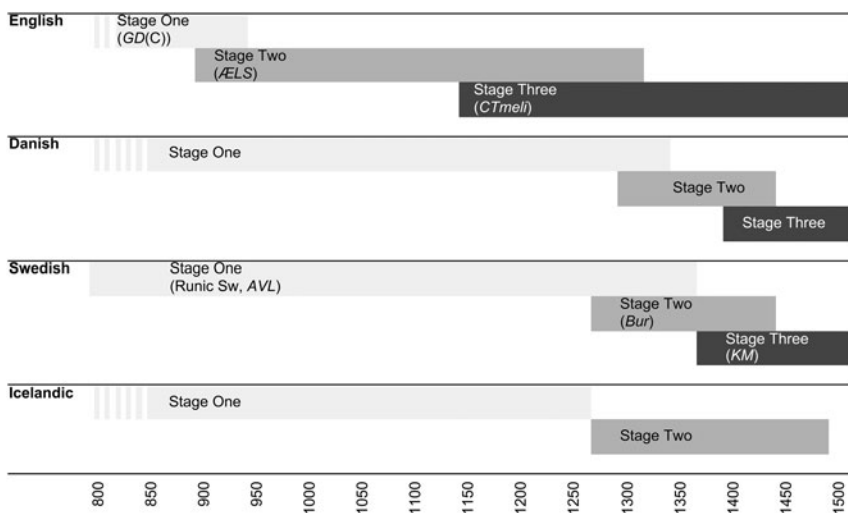

FIGURE 3. Establishment of the indefinite article in English and Nordic.

Demonstratives

We saw in the section discussing the morphological realization of the definite article that the suffixed definite article of many modern Scandinavian languages originates from a postnominal demonstrative, which cliticized onto the noun and was then reanalyzed as a suffix. However, in Ancient and Old Nordic, the possibility of demonstratives following the noun is not limited to the precursor of the definiteness suffix, but is shared by other demonstratives, for example, *sási/þessi* 'this.'

In the runic inscriptions of the Viking age, the order N-demonstrative was vastly predominant, while, already in OIcel and OSw, there is an evolution towards the modern situation,[16] with N-demonstrative orders becoming less common.

Some diachronic evidence showing this trend is provided in Stroh-Wollin (2015:15) from data on the distribution of demonstratives in Scandinavian runic inscriptions, reproduced in Table 3.[17] Note that, according to Stroh-Wollin's survey, the rate of postnominal demonstratives in runic inscriptions decreases over time, but N-demonstrative sequences are still relatively frequent in the thirteenth century.

TABLE 3. *Noun phrases with post- and preposed demonstratives in Scandinavian runic inscriptions from the Viking Age and the Middle Ages (Stroh-Wollin, 2015:15, Table 2)*

	Total	Post-posed dem.		Pre-posed dem.	
Period	*n*	*n*	*%*	*n*	*%*
c.800 – c.1100	1102	1067	97	35	3
b 12th cent. – c.1200	52	41	79	11	21
b 13th cent. – c.1300	24	12	50	12	50
b 14th cent. –	28	8	29	20	71

Roehrs and Sapp (2006:291) (quoting Perridon 1996:252) cited a rate of 98% of N-dem sequences of *sási*/*þessi* 'this' in the Viking age. According to them, the order is then reversed in OIcel (292). A search we ran on the IcePaHC for the position of *sási*/*þessi* 'this' with respect to the head noun shows that, during the twelfth to the sixteenth centuries, the frequency of postnominal demonstratives does indeed decrease in Icelandic compared to Runic inscriptions,[18] but it does not disappear altogether: it is attested at a rate of about 11% over the period, as shown in Table 4.

TABLE 4. *Pre- and postnominal demonstratives in the history of Icelandic, data from IcePaHC*

	Dem-N	N-Dem	Total	% N-Dem
12th century	180	26	206	12.6%
13th century	270	64	334	19.2%
14th century	601	53	654	8.1%
15th century	387	55	442	12.4%
16th century	424	24	448	5.4%
Total	1862	222	2084	10.7%

A similar development is observable in Swedish, according to the description provided in Wessen (1970:127–128, §74). At the earliest stages of runic Swedish, the demonstrative *sa* (OSw *þän*) is normally postnominal. When, in the Viking era, the reinforced demonstrative *sasi* (OSw *þänni*) is introduced in the language, *sa* (*þän*) is instead found in prenominal position, while *sasi*

(*þänni*) is normally postnominal. Wessen, however, acknowledged a large number of exceptions ("*eine große Zahl von Ausnahmen*") (1970:127), where the reinforced demonstrative appears prenominally. Later, in literary OSw, the order demonstrative-N becomes the rule, but, in some old texts, the use is fluctuating ("*In einigen alteren Texten ist der Gebrauch jedoch schwankend*") (1970:128). The author provided examples of this fluctuating use from the AVL and UL.

The apparent freedom of word order in the Old Nordic noun phrase[19] has received different accounts: Faarlund (2002:730) suggested that Old Nordic could have been at a 'transitional stage' between Ancient Nordic, which has head-initial noun phrases with demonstratives and all modifiers following the noun, and modern Scandinavian, where these elements mostly appear prenominally. Börjars, Harries, and Vincent (2016) proposed an alternative analysis, whereby the pre- or postnominal position of demonstratives in ON is constrained by information-structure factors (see also, Harries, 2014:86–87): they argued that in ON, demonstratives are interpreted as anaphoric or cataphoric deictics, depending on their position relative to the head N.

Whatever the account, the Viking Hypothesis predicts that some postnominal demonstratives in ME should be attested, but this prediction is not borne out: a search on the PPCME2 produced only one token of NP containing a postnominal demonstrative for 'this,' out of a total of 8732 NPs headed by N or a proper name modified by the demonstrative 'this'/'these':

(13) Þe fox of ȝiscunge haueð **hwelpes þeose**. tricherie & gile þeofðe & reauelake […]
'The fox of covetousness has **these whelps**: treachery and guile, theft and rapine, […].' (CMANCRIW-1,II.151.2054)

An analogous search of the YCOE retrieved 5275 noun phrases modified by the demonstrative *þes*/*þeos*/*þis,* 'this'; none of the demonstratives was postnominal. Thus, the ME pattern seems to be just a continuation of the OE one with no change taking place. This is one more piece of evidence against a Scandinavian derivation of the ME noun phrase. The scanty evidence provided by runic inscriptions in Britain goes in the same direction, for both N-demonstrative and demonstrative-N orders are attested, the former being possible also in England, although less common:

(14) British runes showing N-demonstrative order (exhaustive list from Barnes & Page, 2006)
OR 14 Þorsteinn Einarssonr reist **rúnar þessar** 'Þ. E. carved this stone'
SC 8 [?Eft]ir Þorgerðu ?Steinar[sdóttu]r er **kross sjá** reistr 'After Þ. S. is this cross raised'
(SC 10 … ***kross þenna** til* ... 'this cross ?for')
SC 14 *Kali Qlvissonr lagði **stein þensi** yfir Fugl, bróður* [*sinn*] 'Kali Qlvisson laid this stone over Fugl, [his] brother'
E 2 *?Ginna lét leggja **stein þensi** ok Tóki* '?Ginna let lay this stone and Tóki (i.e. had this stone laid down, together with Tóki)'

(15)   British runes showing demonstrative-N order (exhaustive list from
        Barnes & Page, 2006)
        SH 6 *Þenna stein* 'this stone'
        OR 15 [*?... þe*]*tta bein* *var* '[?this] bone was…'
        E 1 *Rikarð he me iwrocte And to ðis merið ʒer… me brocte* 'Rikarð he
        made me And to this splendour … brought me'
        E 3 *Dólfinn wreit þessa(r) rúnr á þessa stein* 'Dolfin scratched these
        runes on this stone'
        E 9 *?Gamall ?léta þenna kirk* […] '?Gamall … this church […]'

Possessive pronouns

Possessive pronouns modifying a head N provide analogous evidence.[20]
According to the standard descriptions, possessive pronouns could precede or
follow the head noun in both OSw and ON. For Swedish, the reference is
Wessen (1970:123–127, §73). He stated that, in Runic Swedish, possessive
pronouns conform to the rule that unstressed attributes are realized as clitics
coming after the word they refer to; in contrast, when stressed they precede it.
This pattern continues unchanged in legal codices, with various examples from
AVL, ÖgL, Vidh, and UL. However, in texts of other genres, the prenominal
position for possessive pronouns becomes predominant, and the old pattern
becomes a rare exception ("*ist zu einer seltenen Ausnahme geworden*")
(1970:126), with sporadic cases from Bur, Bir, and Did.

In Icelandic, both in older stages and in the modern language, possessive
pronouns frequently occur postnominally (see Börjars et al., 2016:e12; Faarlund,
2004:59; Harries, 2014:79–82). We confirmed this observation with quantitative
evidence from the IcePaHC, presented in Table 5. Although the frequency of
postnominal possessive pronouns decreases from the twelfth through the
fifteenth century, N-Poss order remains robustly attested.

TABLE 5. *Pre- and postnominal possessive pronouns in the history of Icelandic, data from
IcePaHC*

	Poss-N	N-Poss	Total	% N-Poss
12th century	223	808	1031	78.4%
13th century	405	957	1362	70.3%
14th century	706	1194	1900	63.9%
15th century	1479	1176	2655	42.5%
Total	2813	4135	6948	59.5%

The few extant British runic inscriptions fit the description provided so far.
Barnes and Page (2006) listed three inscriptions where a nominal is modified by
a possessive pronoun. In all three cases, the pronoun follows the head noun:

(16) British runes showing N-possessive pronoun order (from Barnes &
      Page, 2006)
      SH 3 *eftir **foður sinn**, Þorbjǫrn* 'after his/her father, Þorbjǫrn.'
      SC 11 *aft Ingólf,* **foður sinn** 'after Ingólf, his/her father'
      SC 15 **konu sín**[*a*] 'his wife'.

Combining the data from all of these sources, it is reasonable to assume that postnominal possessives were at least possible and maybe common in DScand. In contrast, in ME postnominal possessive pronouns are virtually nonexistent. Our search on the PPCME2 retrieved 32,125 nominals containing a possessive pronoun, with 3 post-N occurrence of the possessive (0.01%).[21] This pattern corresponds exactly to the OE pattern: in the YCOE, there are 32,110 nominals modified by a possessive pronoun, with only 10 cases (0.03%)[22] of postnominal pronouns. Therefore, OE and ME are identical: the prenominal position of possessives can be considered obligatory in both periods.

Thus, this case again qualifies as a syntactic property of ME (obligatory prenominal possessive pronouns) that is identical to OE but different from what one can reconstruct for DScand.

Genitive position

In contrast to the adnominal possessive pronouns discussed in the previous section, there is a series of changes from OE to ME that affects the syntax of nonpronominal genitive modifiers: the loss of the postnominal genitive, the rise of *of*-phrases, and the reanalysis of genitive inflection as a phrasal affix. This last feature is shared with some Scandinavian languages and is in fact used by Emonds and Faarlund as evidence to support their hypothesis (2014:118–19). Although the similarity of English and Scandinavian in this respect is intriguing, the chronology of its establishment makes it questionable as evidence for Emonds and Faarlund's proposal, as argued in Bech and Walkden (2016:89–91).[23] They also noticed a further problem for Emonds and Faarlund's hypothesis, namely genitive position. Quoting Allen (2008:162, 38), and providing evidence collected from the IcePaHC, Bech and Walkden argued that, while in English inflected genitives are essentially prenominal by the end of the twelfth century, they are typically postnominal in OIcel. They claimed that "[i]f Middle English syntax is inherited from Norse, the switch from postnominal to prenominal position [of the genitive modifier] requires an explanation" (Bech & Walkden, 2016:90). They strengthened their point by adding that the loss of postnominal genitives in English had begun in the OE period, as shown in Allen (2008:112–18), and therefore ME is the predictable outcome of OE. However, although Bech and Walkden's line of reasoning is correct, their choice of empirical material is not, as we will show directly.

The loss of postnominal inflected genitives in English is widely described and discussed in relation to the various factors that seem to play a role in (dis)favoring the post-nominal position for a genitive modifier: weight, animacy, type (e.g.,

partitive) (see, in particular, Allen [2008:95–98]). Allen (2008) based her discussion on a wealth of first-hand data collected from the YCOE and the PPCME2 and textual evidence: she showed that branching postnominal inflected genitives are already declining in OE, going from 53% in EWS to 17% in LWS (2008:114, Tables 3.1 and 3.2). As for Early ME, Allen established a correlation between the loss of case marking and agreement and the loss of postnominal genitives (2008:166, Table 4.4) but did not provide the frequency of postnominal genitives in the texts she considered. We therefore conducted a search on the YCOE and the PPCME2 in order to quantify the ME development. Our search, whose results are presented in Figure 4, takes into account the different annotations used in the PPCME2 for different types of NP complements of nouns, and it had to be manually sorted. However, it was not restricted by weight or genitive type, which may account for the difference in the proportion of postnominal genitives between our data and Allen's.
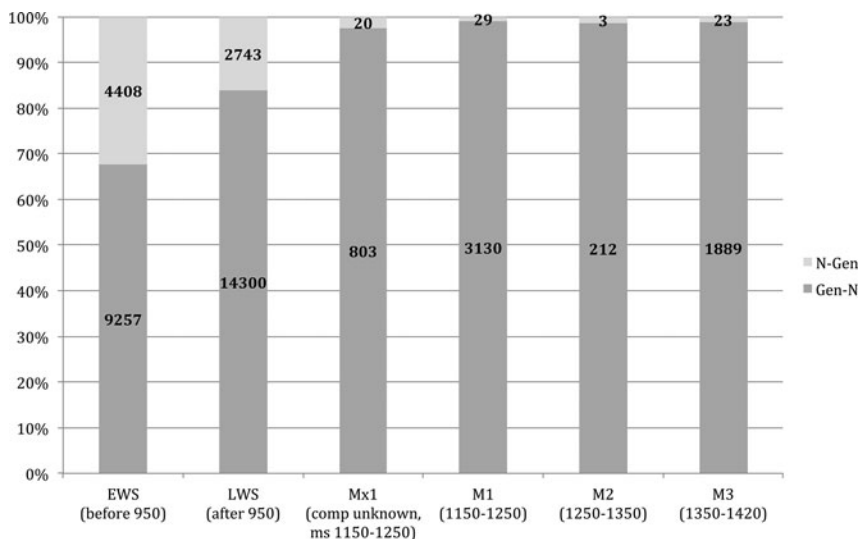

FIGURE 4. Frequency of pre- and postnominal genitives, by OE and ME period.

Figure 4 confirms Bech and Walkden's observation of a "straightforward" (2016:90) development from OE to ME: the frequency of postnominal inflected genitives decreases from 32% in EWS to 16% in LWS to an average of about 1% for the ME period.

Again, to show that the ME pattern cannot be a continuation of DScand, one must show that DScand was not similar to LWS. We first searched the IcePaHC to replicate Bech and Walkden's argument, albeit covering a longer period. The Icelandic data are presented in Figure 5.[24]
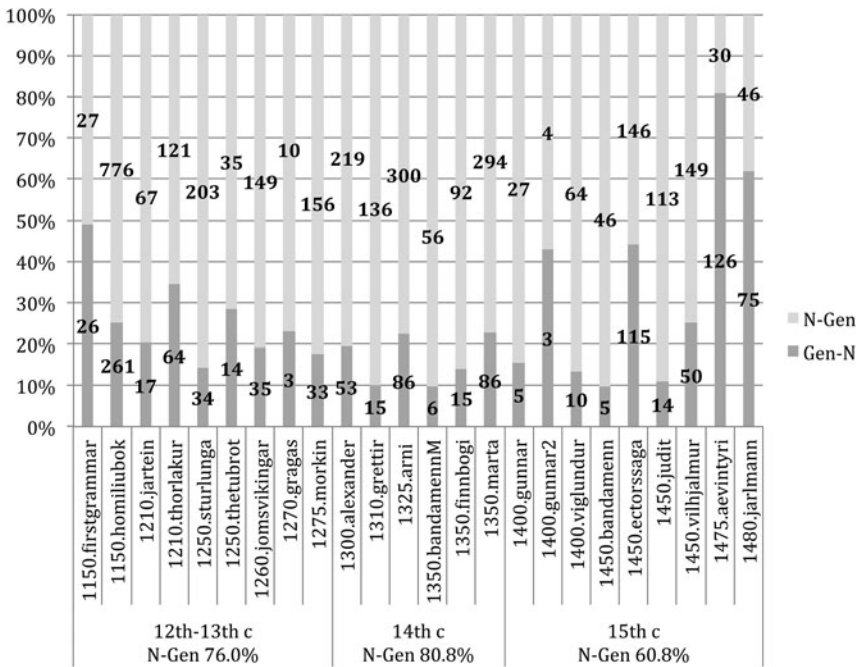
FIGURE 5. Frequency of pre- vs. postnominal genitives in IcePaHC.

Figure 5 shows that OIcel was indeed very different from LWS, but it would be wrong to conclude that this is evidence against the Viking Hypothesis: DScand must be reconstructed, and for the reasons mentioned in the section presenting the materials we use, ODan and OSw are more directly relevant. The available literature on the topic essentially focuses on the history of Swedish, and we will therefore base our argument on it. Our source for OSw and MSw data is Norde (1997), a study of the development of the genitive inflection into a phrasal affix. In Figure 6, we present a graph of data extracted from her tables, selecting only the relevant information, namely pre- and postnominal nonpartitive[25] genitives, and omitting all other genitive constructions. For consistency, we divide her material according to the periodization used in the sections discussing the establishment of the definite and the indefinite articles.

Figure 6 shows that, in runic Swedish, the genitive is postnominal in almost 75% of the tokens. In Early OSw, the frequency of postnominal genitives drops[26] to 12% and is further reduced to 5% in Late OSw until it basically disappears in Middle Swedish. Thus, Swedish proves to be very different from Icelandic with respect to this property, as may be expected given the modern varieties. On the other hand, the development of Swedish mirrors that of English, but once again its timing provides crucial evidence that ME is unlikely to be a continuation of DScand: comparing Figure 6 with Figure 4, we see that the establishment of prenominal genitives takes place more than two centuries later in Swedish than
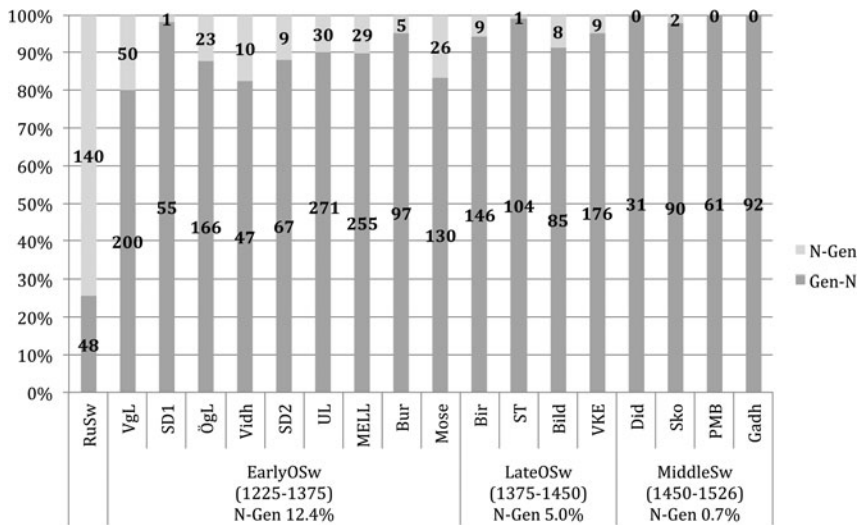
FIGURE 6. Frequency of pre- and postnominal genitives in the history of Swedish (data extracted from Norde [1997:187 Table 4.30, 190 Table 4.31, 199 Table 4.35]).

in English. The asynchronous developments are summarized in Figure 7, which also makes it obvious that the comparison with Icelandic is irrelevant in this case.

In sum, the data presented in this section show that genitive position is, in fact, evidence against the Viking Hypothesis[27] as already argued in Bech and Walkden, but the argument is much stronger if English is compared to Swedish rather than Icelandic.
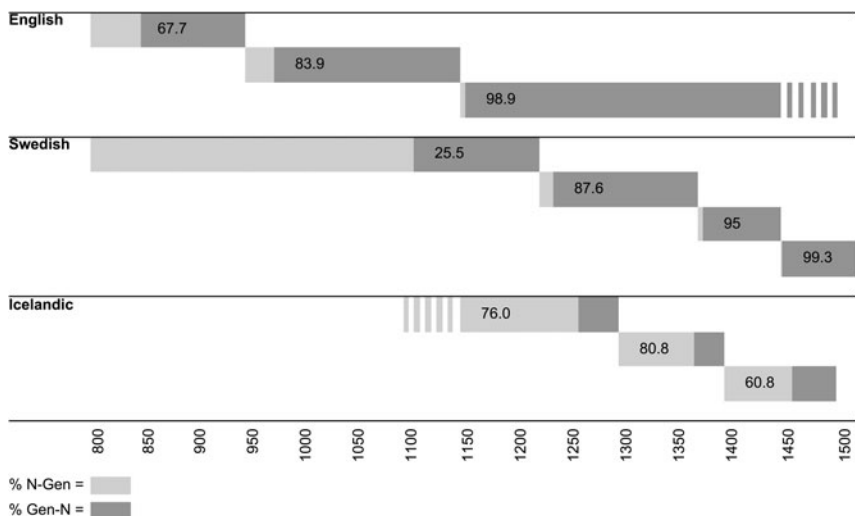

FIGURE 7. Postnominal genitives in the history of English and Nordic.

As noted by Lightfoot (2016:476), the Viking Hypothesis is an empirical claim; it can be refuted only by empirical evidence. Therefore, in this paper, we do not review Emonds and Faarlund's work and their coverage of the relevant literature and data. Rather, we use the syntax of the noun phrase as our empirical evidence to test the Viking Hypothesis. We discuss six morphosyntactic features, and they all converge in supporting the traditional account and refuting the Viking Hypothesis.

We are not the first to provide empirical evidence to support the traditional account, but our work is distinguished from that of others in three ways:

- First, while many of the previous responses to Emonds and Faarlund demonstrated only that OE and ON syntax were similar in various respects, and, therefore, that ME could be the descendant of either language, we show that the various characteristics of ME nominal syntax that we consider can only be derived from OE and, crucially, not from ON.
- Second, given that the variety of Scandinavian spoken in the Danelaw is not attested and must be reconstructed, we claim that OE should not be compared to (a broad notion of) Norse but rather to the extant different varieties of Old Nordic, favoring East Nordic where possible.
- Third, we show that timing is crucial: by establishing when a given change takes place in a given variety, we are able to determine the most likely origin for each of the observed properties in ME. Since the written language may be more conservative than the spoken language, it is possible that linguistic changes already established in speech are not immediately attested in the written texts, but this should generally affect all the different languages we take into consideration. Therefore, it is the relative chronology of the development(s) that matters here.

All of the six syntactic properties we examined using this methodology turned out to qualify as evidence against the Viking Hypothesis. Note, in addition, that they do not offer any support for the Creolization Hypothesis either: what we have shown is that the noun phrase syntactic patterns observed in ME evolve from the OE ones without apparent influence from Scandinavian (or, for that matter, from any other language).

It is important to recognize that we make no claims here about sentential syntax in the history of English or, indeed, about other characteristics of the noun phrase that we have not yet investigated. It is possible to imagine that some aspects of ME syntax are derived from OE and some from ON, and, in particular, that nominal syntax and clausal syntax evolve independently. A better understanding of the relationship between English and Scandinavian in Britain can only be achieved with additional empirical investigation along the lines we present here, which can then constitute the base for a formal analysis of linguistic change(s).

1. At the syntactic level: we do not take into account lexical or phonological evidence, and we take no stand on the general plausibility of the sociolinguistic scenario put forth by Emonds and Faarlund.

2. The northwest of Britain (Scotland, the Isle of Man, and Ireland) was colonized by Norwegians. Thus, West Nordic may have influenced northern dialects.

3. We are indebted to George Walkden for the suggestion that British runic inscriptions may contribute to the reconstruction of DScand.

4. With the exception of Western and Southern Jutlandic dialects, which use the free-standing prenominal *æ* (see Dahl, 2015:39; Lohrmann, 2010:58; Perridon, 2002:1019).

5. See a.o. Dahl (2015:35–39), Delsing (2002:930), Faarlund (2009), Lohrmann (2010:55–60), Roehrs and Sapp (2006), Stroh-Wollin (2009, 2015), and the many references cited therein.

6. Or in Anglicized Norse, which then developed into ME.

7. This resulted in a small number of minimal pairs, such as [1]*gift-et* 'the poison' and [2]*gifte-t* 'the marriage; [1]*bur-en* 'the cage' and [2]*buren* 'carried (p.part. of *bära*)' (Riad, 1998:65).

8. The earliest limit is motivated by the absence of tonal accents in Icelandic. The latest limit is related to the dating of two processes that created disyllables, namely cliticization of the postnominal definite article and epenthesis before syllabic sonorants. Without the latter, using the establishment of the tonal system as evidence for the noninflectional nature of the definiteness marker in Old Nordic may result in a circular argument.

9. Isolated examples of bare subjects and objects with a definite interpretation falling outside the categories individuated in Traugott (1992) and Crisma (2011) should be considered relics of an older stage of the language, the one witnessed by *Beowulf* (see example [2]).

10. Skrzypek (2012) used the following periodization for the Swedish language: Runic Swedish from 800 to 1225; OSw is divided into three periods, Period I from 1225 to 1375, Period II from 1375 to 1450, and Period III from 1450 to 1526 (Skrzypek, 2012:14, and references cited). Thus, Runic Swedish corresponds to virtually the whole of the OE era and the earliest stages of ME (M1 in the PPCME2, 1150–1250). Period I and Period II of OSw roughly correspond to M2 and M3 in the PPCME2 (1250–1350 and 1350–1420 respectively).

11. Their study is based on Bošković (2005) and subsequent work.

12. Crisma's (2015) analysis does not make any prediction for NPs that are ambiguous between a wide-scope and a narrow-scope reading or for existential NPs that do not enter scope relations.

13. In Figure 2, *gnr* stands for 'generics,' *scope-nrw/wd* for 'NPs taking narrow/wide scope.' *scope-amb* 'NPs ambiguous between a wide-scope and a narrow-scope reading,' *exs* for 'existential NPs that do not enter scope relations,' *NPE* for 'no presupposition of existence,' *spc* for 'specific indefinites.'

14. Skrzypek (2012:161, 170) distinguished two types of specific nominals based on their persistence: the first type, "presentative," are taken up later in the text; the second type, "specific," need not be. She claimed that *en* is used first with presentative NPs and only later with specific ones.

15. Unless DScand had borrowed the specificity marker from OE. Allowing for such syntactic borrowings would undermine the whole architecture of Emonds and Faarlund's hypothesis. Our goal is to empirically test Emonds and Faarlund's proposal adopting their framework, so we will not pursue this possibility.

16. The modern pattern is 'this'-N for Icelandic and Danish, and 'this'-N-DEF for Faroese, Norwegian, and Swedish. Postnominal 'this' is attested in some northern Swedish dialects, and, markedly, in Icelandic (Vangsnes, 1999:104, 148 fn 34).

17. Her source is the Scandinavian Runic-text Database. She did not specify the geographical provenance of the materials used.

18. As pointed out by an anonymous referee, the conspicuous difference between Table 3 and Table 4 may be taken as an indication that runic inscriptions are formulaic and probably do not reflect the grammar of the spoken languages.

19. See a.o. Börjars et al. (2016:e12), Faarlund (2002:729–730), Faarlund (2004:55).

20. Possessives and demonstratives become prenominal at very different rates: compare Table 4 and Table 5. Therefore, even if both cases are manifestations of the loss of head-initial order in the NP, we treat them as distinct syntactic constructions undergoing parallel changes.

21. We excluded 21 instances of vocatives, as in *broþerr min* (CMORM,DED.1.3); and eight cases in which the possessive is used as a genitive marker as in *translated Seynt Albon **his** bones* (CMPOLYCH, VI,243.1753) 'translated Saint Alban's bones.'

22. We excluded three cases of vocatives and predicates and another two cases where a phrase-initial possessive would have yielded a definite interpretation instead of the intended indefinite one.

23. Emonds and Faarlund focused on the loss of agreement in genitive noun phrases, which results in the affix on the head noun being the only genitive marking and can be considered an intermediate step in the development of the genitive phrasal affix. This development is attested in the twelfth century in English and in the thirteenth century in Swedish (Emonds & Faarlund, 2014:118–19). Bech and Walkden (2016:91) argued that the change is too late to fit into Emonds and Faarlund's scenario, and it should rather be considered the result of "parallel innovation," the more so since unambiguous cases of reanalysis of the inflection as an affix, as in *the king of England's daughter*, are about two centuries later.

24. We reproduce Bech and Walkden's argument but not their Table 1 (Bech & Walkden, 2016:90) of Icelandic data, since they combine pronominal possessives and nonpronominal possessives, while Figure 4 for English presents only the latter. Bech and Walkden's data combining the two types show the same general pattern.

25. Partitive genitives are "invariably postpositive" (Norde, 1997:195).

26. Which again suggests that runic inscriptions are very distant from spoken language (see fn. 18).

27. British runic inscriptions from Barnes and Page (2006) do not provide any evidence concerning this particular syntactic feature, because the only noun phrase modified by a genitive, which is prenominal, is dubious (170): OR 6 *Filippus ?rúnar* 'Philippus ?runes.' There are two or maybe three patronymics constructed with a prenominal genitive. Note that, in modern Icelandic, where genitive modifiers occur postnominally, patronymics are also formed with a prenominal genitive.

<div align="center">S O U R C E S</div>

Danish:

SC *The Legend of St. Christina* (appr. 1300). In Nelly Uldaler & Gerd Wellejus (eds) *Gammeldansk læsebog*. København: Gyldendal 1968, pp. 283–286.

SL *The Stockholm B 69 manuscript containing the Scanic Law* (1174, ms appr. 1350). In Johs. Brøndum-Nielsen et al. (eds) *Danmarks gamle Landskabslove* (: *Medieval Danish Lawtexts*), I-VIII. 1933–1941, København: Gyldendal. Vol. 1,1, Text II.

English: we refer to OE/ME texts with the short titles of the YCOE and the PPCME2, which provide philological information.

Icelandic: for the texts used for Figure 5, refer to the documentation in the IcePaHC.

Hkr *Heimskringla* (13th c). In: Jónsson, Finnur (ed.), *Heimskringla* [Noregs konunga sögur af Snorri Sturluson I–IV]. Copenhagen 1893–1901.

Swedish
Texts quoted in the examples:

AVL / VgL *Äldre Västgötalagen* (1225, ms 1280). In: *Samling af Sweriges gamla lagar*, ed. Hans Samuel Collin and Carl Johan Schlyter, 1827, vol. 1. Stockholm: Haeggström.

Bur *Codex Bureanus* (1276–1307). In: *Ett fornsvenskt legendarium*, ed. Georg Stephens, 1847. Samlingar utgivna av Svenska fornskriftsällskapet 7:1. Stockholm: Norstedt.

KM   *Karl Magnus-sagan* (a.1400, ms 1430–50). In: *Prosadikter från Sveriges medeltid*, ed. Gustaf Edvard Klemming, 1887–1889. Samlingar utgivna av Svenska fornskriftsällskapet 28. Stockholm: Norstedt.

Abbreviations (with approximate date of composition/manuscript):

Bild   *Codex Bildstenianus* (first half of the 15th c).
Bir   The revelations of Saint Birgitta (end of 14th c).
Did   Sagan om Didrik af Bern (1449–1476).
Gadh   Hemming Gadh's letters (1498–1520).
MELL   *Magnus Erikssons landslag* enligt Cod. Ups. B 23 (1347).
Mose   *Fem moseböcker på fomsvenska* enligt Cod. Holm. A1 (beginning 14th c).
ÖgL   Östgotalagens (1290).
PMB   Peder Månsson's bondakonst (1507–1524).
SD1   *Svenskt diplomatarium* (SD 709, SD 799, SD 813) (1281, 1285, 1285).
SD2   Svenskt diplomatarium (1335–1354).
Sko   *Skomakarnas skrå* (1474 - some parts from before 1450).
ST   *Själens tröst* (1430–40).
UL   *Upplandslagen* enligt Cod. Holm. B199 (ca. 1350).
Vidh   Vidhemsprästens anteckningar (1325).
VKE   Vadstena klosters ekonomi (1443–1448).

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