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Lotte Sommerer

ARTICLE EMERGENCE IN OLD ENGLISH

A CONSTRUCTIONALIST PERSPECTIVE

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To Evelien and Niki, who made this possible

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List of Abbreviations

acc	accusative
ADJ	adjective
ADJP	Adjective Phrase
ART	article
CN	common noun
CNPs	noun phrases with common noun as head
count	countable
Cx	construction
dat	dative
def	definite
DEM	demonstrative
DET	determiner
DP	Determiner Phrase
fem	feminine
GenP	Genitive Phrase
Got	Gothic
indef	indefinite
infl	inflected for case, number, gender
masc	masculine
ME	Middle English
ModE	Modern English
MnE	Modern English
N	noun
neut	neuter
nom	nominative
NP	Noun Phrase
OBJ1	indirect object
OBJ2	direct object
OE	Old English
OHG	Old High German
OS	Old Saxon
PA	Parker Chronicle
PB	Peterborough Chronicle
PDE	Present Day English
pl	plural
PN	proper noun
PNPs	noun phrases with proper noun as head
POSS	possessive
PRED	predicator
QUANT	quantifier
ref	referential
sg	singular
SUB	subject

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1 Introduction

A major challenge in linguistic analysis concerns the possibility of capturing the inherently dynamic nature of linguistic structure and the gradualness of grammatical change, while satisfying the general requirement of systematicity and descriptive and explanatory adequacy. Part of the challenge is rooted in the basic, obvious, but analytically nontrivial fact that language is always situated in context, which also implies a connection between linguistic change and language use. Awareness of this interdependence goes hand in hand with a marked shift in the orientation of present-day diachronic (and, more broadly, variationist) research: instead of focusing on describing instances of (inherent) change, seen as affecting merely discrete units of a context-independent grammatical system, greater emphasis is now put on searching for generalizations over those instances so that we can begin to explore and explain recurrent types of change. This shifting interest highlights at least two mutually dependent points: (1) the need for establishing a workable and plausible explanatory model that can accommodate the gradient nature of language change, but also (2) to acknowledge the relevance of diachronic analyses and diachronic evidence for developing an adequate theory of language in general. (Fried 2013: 419)

This monograph is a usage-based corpus study of nominal determination patterns in Old English (OE) which analyzes the phenomenon of category emergence from a diachronic Construction Grammar perspective. It is about the development of the definite and the indefinite article in English and argues that a usage-based, cognitive constructionalist approach seems to provide the most promising account of WHEN, HOW and WHY the articles emerged. Basically, it will be shown that the development of the OE demonstrative *se* ('that') and the OE numeral *ān* ('one') should not be told as a story of two individual morphemes, but must be reconceptualized in constructionalist terms. The emergence of the morphological category 'article' follows from constructional changes in the linguistic networks of OE speakers and is a case of 'grammatical constructionalization' (i.e. the emergence of a new schematic, mostly procedural, form-meaning pairing which previously did not exist in the constructicon). It will be demonstrated that what has traditionally been interpreted as a case of grammaticalization of two morphemes is the result of several network changes in the constructicon on a more abstract, schematic level, especially the constructionalization of two lexically underspecified, schematic NP constructions with a determination slot.

In Present Day English (PDE), the articles are functional elements which, among other things, mark definite and indefinite reference in a subset of noun phrases (NPs). Articles are procedural, linguistically relational devices which semantically ground the nominal and anchor it in discourse by marking intertextual, anaphoric relations (Langacker 1991: 51–53). As Heine and Kuteva point out:

The use of articles is anchored in general human conceptualization capacities such as foregrounding (or individuating) of an entity against the background of a developing ‘textual’ world or a shared situational world: both the definite and the indefinite articles individuate an entity out of a group of entities. (Heine and Kuteva 2006: 97)

Singular count, plural count and non-count nouns are not supposed to occur in ‘bare’ form when they are used in a context where the speaker assumes that the hearer is able to (exhaustively) identify the entities denoted on the basis of the previous discourse, the intermediate situation or general world knowledge; in other words, in all contexts that make it clear that the noun phrase refers to a unique, identifiable entity. In those cases, the overt marking of definite reference is obligatory, which by default is realized by the definite article *the*. In contrast, if the noun phrase has indefinite reference this is marked obligatorily by the indefinite article *a/an* (and sometimes *some*) with singular count nouns (Quirk et al. 1985: 5.12; Payne and Huddleston 2002: 371). According to internet statistics, *the* is the most common word in the English language and *a/an* is ranked sixth right after *be*, *to*, *of* and *and*.¹

As the articles are such central elements of the modern noun phrase, the rise of such a category may seem ‘unavoidable’ in retrospect. However, there is considerable variation in the expression of (in)definiteness across languages. Articles which only express (in)definiteness or (non-)specificity are not frequent cross-linguistically. Articles are only attested in one third of the languages of the world, and there are many languages like Finnish or Russian which have no articles at all. As a matter of fact “most of the world gets along quite well without being obliged to distinguish consistently between *the* article and *an* article” (Lyons 1999: 48).

Languages in Western Europe and the countries around the Mediterranean show the greatest concentration of languages having an article system (de Mulder and Carlier 2011: 522). If languages have an article system, the definite article is more common than the indefinite article. Based on Moravcsik (1969), Heine (1997) argues that a language which has an indefinite article is likely to also have a definite article, while the reverse is not the case in 95% of the languages. In other words, there are many languages which contrast their definite article with no article (zero marking/‘zero article’) (e.g. Icelandic, Bulgarian, Rumanian), while it is extremely rare for a language to have an indefinite but no definite article.²

¹ https://en.wikipedia.org/wiki/Most_common_words_in_English

² On the other hand, some languages even have two or three definite articles. For example, the North Frisian dialect Western Fering has two definite articles *di(m)–det(f,n)–dön(pl)* and *a(m)–*

With regards to the formal shape of the article, it is either an invariable, uninflected word (for this reason it is often labeled ‘particle’ in descriptive grammars), or the article is an inflected form encoding features such as number, gender and case. This is particularly the case in Indo-European, e.g. German (Lyons 1999: 67). One either finds a free lexical item (e.g. *the*) as article or an affixal article of some kind, which is added to mark definiteness: e.g. Rumanian: *om* (man), *om-ul* (man-DEF: the man); *om-ul bun* (man-DEF good: the good man); or Basque: *emakume* (woman), *emakume-a* (woman-DEF: the woman), *emakume ederr-a* (woman beautiful-DEF: the beautiful woman). *The/a/an* belong to the preposed free-form type. The great majority of languages with a free-form article are comparable to English in terms of the article’s position in the noun phrase (e.g. Greek); i.e. free-form articles in preposed position tend to occur at the beginning of the noun phrase before the modifier (Lyons 1999: 64).

However, adding an article to the head is not the only way of making (in)definite reference to some entity. Languages may indicate (in)definiteness through word order/position (e.g. Finnish or Chinese) or case endings (Diesing 1991). For example, in Finnish, word order is typically used to indicate if a noun phrase is definite or indefinite. Compare *Kadulla on auto* ‘On the street is a car’ vs. *Auto on kadulla* ‘The car is on the street’ (Karlsson 1983[1995]: 18). In many languages direct objects receive distinct marking only if they are definite. For example in Turkish, the direct object in *adamları gördüm* (‘I saw the men’) is marked with the affix *-i* (indicating definiteness). The absence of the affix means that the direct object is indefinite (*adamlar gördüm* ‘I saw men’). (In)definiteness can also be indirectly expressed by case endings on prenominal adjectives. For example in Serbo-Croatian, and to a lesser extent in Slovene, the short form of the adjective is interpreted as indefinite (*nov grad* ‘a new city’), while the long form with the suffix *-i* is definite and/or specific (*novi grad* ‘the new city’, ‘a certain new city’) (Aljović 2002).

From a historical point of view linguistic communities develop article systems “relatively late” and “spontaneously” (Lyons 1999: 4) and if a language develops an article system at all definite articles tend to develop earlier than indefinite articles (de Mulder and Carlier 2011: 524). The articles often develop out of a weakened demonstrative (normally the non-proximal demonstrative or equivalent) or the numeral ‘one’. For example, in French (similar to English) the

at(f,n)–a(pl). Similarly, Low German and Danish distinguish between more than one definite article (Schroeder 2006: 562). If a language has more than one definite article, it often uses the different forms for different discourse participants or to distinguish anaphoric or non-anaphoric reference (Giusti 1997: 102; Schroeder 2006: 570).

definite article *le* derived from the Latin distal demonstrative *ille*, while the French indefinite singular article *un* developed out of the Latin unity numeral *unu(m)* (van Gelderen 2007: 275–276).

Note however, that articles can also originate from possessive elements (e.g. Mari, Kamas, Komi) or from a pronoun (Schroeder 2006: 586). For example, the North Germanic dialects developed their article from the postposed 3rd person pronoun, which was originally treated as clitic and afterwards as an ending (McColl Millar 2000b: 305). There are also cases attested where a definite article originates from a verbal lexeme like ‘say’ (e.g. Proto Chadic) and ‘see’ (e.g. Sisala) (de Mulder and Carlier 2011: 523).

It can be concluded that article development is not very common in the languages of the world, and many languages can express communicative intentions without it in the sense that they mark (in)definiteness by alternative means. As has been mentioned before, many languages use optional determinatives (demonstratives, numerals) rather than obligatory articles to indicate definiteness.³ Thus, what needs to be explained is why and how English changed from an ‘articleless’ language into a language with obligatory overt (in)definiteness marking (at least with singular count nouns) which recruits two free-form articles in the prehead of the NP to do so. Additionally, one needs to tackle the question what it actually means for an item to be an article and when – in the history of English – it makes sense to introduce this category in grammatical description. To this day, three basic questions remain unresolved, namely (a) why free-form prehead articles developed in English, (b) whether the Old English form *se* already functioned as a definite article and (c) why the indefinite article developed with some temporal delay with its paradigm being incomplete in the sense that plural and non-count nouns occur bare in indefinite contexts.

With regards to question (a), several answers have been given. It has been suggested that the diachronic emergence of the articles is:

- triggered by the loss of nominal morphology especially in the adjective paradigm (e.g. Philipsen 1887; Behaghel 1923; Christophersen 1939; Mustanoja 1960; Giusti 1993; Holmberg 1993)
- influenced by language contact with Old Norse (McColl Millar 2000a,b)

3 There seems to be some kind of geographical continuum with regards to obligatoriness. Whereas in Western Europe the definite article is frequent and formally distinct from the demonstrative (English, Spanish, French), the further one moves East, the less likely it is to encounter an obligatory article. In some Eastern languages there is only an incipient article use of the demonstrative but no definite article (Russian) or the article is only emerging (in a certain register or only used by young speakers, e.g. Finnish (Schroeder 2006: 575).

- an example of functional reanalysis towards or within Determiner-Phrase (DP) structure motivated by the ‘Principle of Feature Economy’ (Yamamoto 1989; Philippi 1997; Lyons 1999; Roberts and Roussou 2003; Osawa 2003, 2007; van Gelderen 2004, 2007; Stark, Leiss and Abraham 2007)
- a case of grammaticalization in which, on the one hand, the OE deictic demonstrative *se* ‘that’ grammaticalized to become the ModE definite article *the* and in which, on the other hand, the OE numeral *ān* ‘one’ developed into the indefinite article *a/an* (Christophersen 1939; Rissanen 1967; Greenberg 1978; Hopper and Martin 1978; Traugott 1982; Mitchell 1985; Lehmann 1995[1982]⁴; Himmelman 1997; Diessel 1999a,b; Lyons 1999).

Generally, each of these lines of investigation has its merit. As a matter of fact, somewhere in the process some kind of reanalysis of the grammar must have taken place (whatever this grammar looks like), in order for the articles to emerge. Also, if one compares the OE deictic demonstrative or the numeral with their elaborate declensions to the ModE articles, which are formally and semantically reduced obligatory markers expressing (in)definiteness in a fixed position, it is true that most of Lehmann’s grammaticalization parameters (1995[1982]: 164) can be applied in both cases. Still, various explanatory challenges remain. Although most of the accounts listed above provide descriptions of the words’ formal and functional developments, the proposed explanations are often incomplete because they do not identify the triggers of the change or because they do not discuss how the grammaticalization of the individual forms affects (or is affected by) the whole linguistic system (e.g. related constructions).

The question of causality is well-formulated by Hawkins: “Why is it that grammaticalization clines are set in motion in some languages but not in others, or set in motion at some stage of language and not in others?” (Hawkins 2004: 82) With regards to this question, it will be argued that reanalysis and grammaticalization are epiphenomenal descriptive terms rather than ‘real’ causal mechanisms and should be broken down into more fundamental cognitive mechanisms including analogical thinking (Fischer 2007: 4; De Smet 2009: 1730). Although the emergence of the article category is definitely a multi-causal phenomenon and is also influenced by the speakers’ communicative needs, I suggest that to fully understand the process, we need to acknowledge that linguistic change is not only initiated by changes on the discourse-pragmatic level but that the overall shape of the synchronic system and speaker-internal cognitive pressures (e.g.

⁴ Note that there is a more recent 3rd 2015 edition of Lehmann’s classic. However, I will refer to the 2nd edition.

entrenchment) also trigger changes and constrain their direction. This is why this study seeks to explain article development from a usage-based, cognitive constructional network perspective. I will explicitly discuss the influence of frequency effects, analogical thinking (pattern recognition and transfer) and cognitive processing preferences on the articles' emergence.

To highlight the systemic effects, it will be argued that the development of the articles in English is triggered by cognitively motivated constructional changes in the linguistic network; especially the emergence of two complex, schematic, lexically underspecified constructions with a fixed determination slot in the prehead of the noun phrase. This slot becomes a functionally exploitable structural category itself, which leads to the recruitment of the demonstrative and the numeral as default slotfillers. The article category emerges as a result of the interaction between abstract constructional schemas. An abstract syntactic construction is thus a "grammatical primitive [which can be] both the source and outcome of grammaticalization" (Traugott and Trousdale 2010: 13).

The second question (b) as to whether *se* already functioned as a definite article in Old English heavily depends on how one defines demonstratives and articles in the first place, and what grammatical features one believes to be affected by the postulated change. Unfortunately, most accounts are full of terminological inconsistencies and do not offer a definition of the article category. Unless we set up clear criteria for distinguishing between demonstratives and articles, it will not be possible to properly describe the categorical change. In other words, it is necessary to define 'article usage'.

As a reaction to this shortcoming, I will evaluate seven criteria for articlehood which have been proposed by various scholars and test whether these criteria will help to successfully demarcate between a demonstrative and a definite article or a numeral and an indefinite article. Ultimately it will be shown that not all the criteria are useful, especially when one applies them to an older language stage like Old English. Ultimately, I will propose the following working definition for an English article: an article is a linguistic element which is a syntactically fixed default slotfiller used to exclusively and obligatorily mark (in)definiteness.

Note that the term 'article' is often confused or used synonymously with the more modern term 'determiner'. Bloomfield introduced the concept 'determiner' in 1933, while the term 'article' is much older. Lowth (1762) seems to be the first to take the articles as a separate word class; before that, they were considered particles. However, a conceptual difference between those two exists. I will work with the following distinction: the term 'article' refers to a word category, i.e. a cover term for certain lexemes (e.g. English *the* or German *der*, *die*, *das*), whereas

‘determiner’ denotes a syntactic function in the noun phrase which can be fulfilled by a set of elements called ‘determinatives’ (see section 2.1).

Any attempt to successfully demarcate the article category must be embedded into a broader discussion of notions like gradience and gradualness (Taylor 2003; Aarts 2004, 2007a,b; Denison 2006; Traugott and Trousdale 2010). The case of article development shows that synchronic gradience (i.e. the organization of members within a category and the nature of boundaries between categories) is a result of diachronic gradualness. Thus a diachronic perspective is the key to gaining a better understanding of a form’s step-wise acquisition of semantic, distributional and categorical properties (Denison 2006: 300). The set of determinatives is fuzzy, and not every element which nowadays is considered to be a member of this set necessarily used to be a member of it at earlier linguistic stages. This leads to gradience and indeterminacy.

With respect to question (c) the indefinite article has been said to develop in early Middle English (ME); it remains to be seen why. Previous research suffers from the fact that the developments of the definite and the indefinite article are traditionally discussed separately (e.g. Rissanen 1967 vs. McColl Millar 2000a). Unfortunately, most accounts fail to see the interdependency of the two developments. As a reaction, I will link the development of the indefinite article to the previous emergence of its definite counterpart, present and test criteria for articlehood and will show how OE ‘NP ecology’ (i.e. the composition, distribution and frequency of various NP constructions) steered the linguistic change in its specific direction.

Many traditional studies are small in empirical scope and do not use quantitative methods or corpus data. This is why I want to answer the questions mentioned above by presenting the empirical results of an extensive qualitative and quantitative corpus study which will shed new light on the topic.

The rest of this introduction gives a preliminary account of the phenomenon (section 1.1) and briefly presents the texts and methodology used (section 1.2). Section 1.3 outlines the approach taken and sketches the constructional nature of the change. The overall goals and limitations of this book are discussed in section 1.4. Finally, an overview of the structure of this monograph will be given (section 1.5).

1.1 The phenomenon

It is established knowledge that the definite English article *the* developed out of the OE deictic demonstrative *se* (and its inflectional forms), whereas the indefi-

nite article *a/an* derives from the OE numeral *ān* (Christophersen 1939: 84; Mustanoja 1960: 169; Kisbye 1972: 1; Mitchell 1985: 127–129).⁵ Within the Indo-European languages and especially in the Germanic languages article emergence is a rather late development. Some researchers state that “this category is not a feature inherited from Indo-European” (De Mulder and Carlier 2011: 523). In Gothic (Got), Old High German (OHG), Old Saxon (OS) and Old English (OE) the article is only emerging. (Philippi 1997: 62) lists the following sentences (ex.1) in order to show that all these Germanic languages did not obligatorily mark definite or indefinite reference.

- (1) a) *iþ sa inngaggands* *pairh **daur*** *hairdeis ist* *lambe*
but who goes *through **[the]** door* *is **[a]** shepherd for* ***[the]** sheep*
 Got (J.X.2)
- b) *uuantra giboran ist* ***man*** *in **mittilgart***
because (it) was born ***[a]** man* *in **[the]** world*
 OHG (Tatian.174.5)
- c) *stonc ða æfter* ***stane*** ***stearcheort,*** *onfand* *feondes fotlast*
jumped then behind ***[the]** stone* ***[the]** stouthearted,* *found* *enemy's footstep*
 OE (Beo.2288)
- d) *ef eo* ***man*** *mid sulicun dadun* ***dodes*** *gesculdien*
if sometimes ***[a]** man* *with such actions* ***[the]** death* *deserves*
 OS (Heliand. 5244)

Instead, what we find in these languages is the use of demonstratives and numerals in a way similar to that of the definite and indefinite articles in modern Germanic languages, as illustrated in example (2):⁶

- (2) a) *jah andhafjands* ***sa hundafaps*** *qap*
and answering ***the/that captain*** *said*
 Got (M.VIII:8)
- b) *so er bifora wardh chichundit dhuruh* ***dhen forasagun***
so he before was foreseen by ***the/those prophets***
 OHG (Isidor.28.5.6)

⁵ The definite article *the* developed from the so-called ‘simple’ (‘distal’) dependent determinative *se* and its paradigm. Most likely from the masculine nominative form *se* employing the onset *p*– from the other cases. The indefinite article developed from the numeral’s nominative and accusative form *ān* (see section 4.1.1 for details).

⁶ Examples (2a–c) are also taken from Philippi (1997: 62).

- c) that **all thia elilendun man** iro vothil suohtin
 that **all the/that strange men** their home looked-for
 OS (Heliand.345)

In Old English, *ān* and *se* could be used to mark indefinite and definite reference, respectively:

- (3) þa Eadmund clypode **æne bisceop** þe him þa gehendost wæ
 then Eadmund summoned **a/one bishop** who him then nearest was
- [...] þa forhtode **se bisceop**
 [...] then was afraid **the/this bishop**

‘Then Edmund sent for a bishop, who was closest to him...then the bishop was afraid’
 (coaelive,+ALS_[Edmund]:56.6994_ID)

Se could be used in two ways: either as an independent element (comparable to the PDE complementizer/pronoun *that/which/who*) heading a noun phrase (ex.4) or dependently as a determinative in combination with a noun (ex.5 and ex.6). The definite article developed out of the dependent usage.

- (4) ðaða he wæs gebroht to geleafan mid ðære grapunge
 When he was brought to faith with the touch
- þa wearð seo twynung þurh **þæt** us ætbroden
 then was the uncertainty by **that** from us taken

‘When he was made to believe through the touch, the uncertainty was taken from us by that’
 (cocathom1,+ACHom_I,_16:310.95.2998_ID)

- (5) On ðære wæron **ða stænenan bredu** ðe **sio æ**
 In it were **the stone tablets** on which **the law**
- wæs on awriten mid tien bebodum [...], & eac **se sweta mete**
 was written in ten commandments [...], and also **the sweet food**
- hie heton monna se him cuom of hefonum
 they call manna which to them came from heaven

‘In it the stone tablets were kept on which the law was written in ten commandments, and also the sweet food they call manna which came to them from heaven’
 (cocura,CP:17.125.17.847)

- (6) Genim ðe ane iserne hierstepannan [...] Ðurh **ða pannan**
 take an iron frying pan [...] by **the pan**

is getacnod **se wíelm** ðæs modes
 is signified **the fervor** of the spirit

‘Take an iron frying pan... through the pan the fervor of the spirit is signified’
 (cocura,CP:21.163.21.1117_ID)

The indefinite article derives from the individualizing use of the numeral *ān*. In example (6) the iron frying pan is introduced by the form *ane*. Like *se*, *ān* could be used independently (ex.7) or in combination with a noun (ex.8).

- (7) þa nam he fif stanas on his herdebelig, &
 then took he five stones in his shepherd’s bag and

þeah-hweþere mid **anum** he þone gigant ofwearp
 yet with **one** he that giant struck down

‘Then he took five stones in his bag, however with one he struck down the giant’
 (coblick,HomS_10_[BlHom_3]:31.82.419_ID)

- (8) & þæs geares wærun ofslægene viiii eorlas & **an cyning**
 and that year were killed nine earls and **one king**

‘And that year nine earls and one king were killed’
 (cochronA-1,ChronA_[Plummer]:871.33.829)

In example (7) and (8) *ān* is used as the numeral *one* (as opposed to *two* or *three*). In example (9), however, we find *ān* with a rather bleached meaning with an individualizing function which more or less resembles that of the indefinite article (Rissanen 1967: 261).

- (9) Min broðor Peada & min leoue freond Oswi ongunnen **an mynstre**
 My brother Peter and my dear friend Oswy began **a/one minster**

Criste to loue & Sancte Petre
 Christ to praise and Sanct Peter

‘My brother Peter and my dear friend Oswy started to build a minster to praise Christ and St.Peter’
 (cochronE-INTERPOLATION,ChronE_[Plummer]:656.14.398)

Looking at the examples, one could jump to the conclusion that Old English had a definite and indefinite article. However, various problems arise if one simply equates OE *se* with ModE *the* and OE *ān* with today's *a/an*. The distribution of *se* in Old English differs from that of modern *the* in various ways. Sometimes Old English does not employ the demonstrative when one might expect an article in Present Day English and vice versa. Patterns with no overt marking of definite reference can be found (ex.10 and ex.11).

- (10) Her **sunne** aðeostrode on xii kl. Iulii
 Here **sun** grew dark on [20 June]

'In this year, the sun grew dark on the 20th of June'
 (cochronE,ChronE_[Plummer]:540.1.183)

- (11) Ic ga ut on dæggræd þywende oxan to felda,
 I go out at dawn driving oxen to fields
- ond iugie hie to syl [...] ac geiukodan **oxan** ond
 and I tie them to plough [...] but when I yoked **oxen** and
- gefæstnodon sceare ond cultre mid þære syl,...
 fastened plough and ploughshare to that plough,...

'At dawn I go out and drive some oxen to the fields and I tie them to a plough...
 but when I yoked the oxen and fastened plough and ploughshare to that plough...'
 (Alfric's Colloquy, Garmonsway 1939: 19–21)

For example in (11), the OE count noun *oxan* occurs in bare form without any determinative although the referent set of the oxen has been introduced in the previous discourse so that the referent is already known to the speaker and hearer. Modern English marks this overtly by the definite article *the* (or another determinative e.g. *this/his*). However, later in the manuscript, the noun *oxen* gets marked by a form of *se*:

- (12) Þænne se yrthlingc unscenþ **þa oxan,**
 When the farmer has unyoked **the/his/these oxen,**
- ic læde hie to læse, ond ealle niht ic stande ofer hie
 I lead them to the pasture and all night I stand over them
- waciende þeofum for
 watching thieves for

‘When the farmer has unyoked the oxen I lead them to the pasture and all night
I stand over them watching for thieves’
(*Ælfric’s Colloquy*, Garmonsway 1938: 19–21)

Se here can be given a deictic interpretation and may be translated as the demonstrative *these* or even as a possessive pronoun (*his*) but it can also get an article-like reading translatable as *the*.

It is also possible in Old English for *se* to co-occur with a possessive pronoun in the same NP (e.g. ex.13; also see section 4.1 for co-occurrence patterns). This is something which does not suggest that the form functions as an article but rather as a modifying element, if we assume that articles do not co-occur with other determinatives (see section 2.3 on criteria for articlehood).

- (13) Gif hwa slea **his ðone nehstan** mid stane oððe mid fyste
 If anyone beats his that neighbor with stone or with fist

‘If anyone beats his neighbor with a stone or with the fist’
(*colawafint*, *LawAfEl*:16.41)

It can be concluded that the form *se* could fulfill more than one function and the use of a determinative appears to have been only optional when it comes to marking definiteness. The examples given sparked a debate in the literature about the question whether the demonstrative should already be analyzed as a definite article in the 9th century. Concerning this question, opinions differ. The controversy has mostly remained undecided because of terminological inconsistencies. Past discussions have been confused because scholars did not explicitly define the article category or disagreed on how to define it.

Early writers such as the German scholars Flamme (1885: 25) or Brunner (1965[1942]: 261) positively state that the demonstrative *se* is a definite article:

Das ursprüngliche einfache Demonstrativpronomen *se*, *sio*, *ðæt* hat im Ae. meist nur noch die abgeschwächte Bedeutung des bestimmten Artikels. [Most of the time, the original simple demonstrative pronoun *se*, *sio*, *ðæt* in Old English only has the weakened meaning of a definite article]. (Brunner 1965[1942]: 261 §337)

Similarly, Philipsen (1887: 6, 10, 14) distinguishes between articles with ‘strong demonstrative force’, with ‘weaker demonstrative force’ and ‘without demonstrative force’. Also other linguists strongly believe in the existence of an article around 897 (Christophersen 1939: 92; Kisbye 1972: 1). In contrast, several recent studies do not postulate the existence of a definite article in Old English (Ackles 1997; Denison 2006; Osawa 2007). Ackles states that

the entire system for the expression of definiteness [...] differed from Old English to Middle English. Old English contained elements to which the Middle and Modern English definite articles can be traced, at least phonologically, but the Old English elements did not function as definite [...] articles (Ackles 1997: 27).

As stated before, an answer to the question when the articles emerged in English will be influenced by the particular definition of the article category. Some linguists categorize a form as a definite article when it is only used for individualization, while others consider it a true article only when it is an obligatory satellite of the noun in all referential contexts. For example, Mustanoja decides to treat *se* and *ān* as articles at an early stage when they are used to single out an individual and do not have their “full demonstrative or numeral force” (Mustanoja 1960: 231). On the other hand, grammarians like Christophersen point out that we cannot recognize *se* as an article “until the development is completed and the word has become obligatory in all such cases. Till then, we have only extended use of a demonstrative” (1938: 83). In this book I argue that a linguistic element should only be called an article (in English) if it is a syntactically fixed element used to exclusively and obligatorily mark (in)definiteness.

Regarding the development of the indefinite article, most scholars agree that there was no indefinite article in Old English and that it only developed later at the beginning of the ME period (Christophersen 1939; Rissanen 1967). This agreement derives from the fact that most of the time indefinite reference is not marked at all in the OE texts (ex.11 above, ex.14 and ex.15).

- (14) He cūað: ða ic hæfde ðone weall ðurhðyrelod ða geseah ic **duru**
 He said: when I had the wall pierced then saw I door

‘He said: When I had pierced the wall, I saw a door’
 (cocura,CP:21.155.3.1053)

- (15) Gif **ceorl** ceap forstilð & bireð into his ærne & befehð
 If husband steals cattle and brings to his house and finds
 þærinne mon þonne bið se his dæl synnig butan þam wife anum
 in there someone then is this his part guilty without the wife alone

‘If a husband steals cattle and brings it into his house and someone finds it there,
 then he alone without his wife is guilty for his deeds’
 (colawine, LawIne:57.153)

As OE prose is full of such unmarked indefinite noun phrases, Mitchell states that no indefinite article existed in Old English. He points out that “OE *ān* is often not

used where MnE would have the indefinite article and that where it does it usually carries some sense stronger than MnE ‘*a, an*’” (Mitchell 1985: 95; also see Ringe and Taylor 2014: 447). With only a few exceptions (e.g. Schrader 1887)⁷ the majority of researchers pin down the emergence of the indefinite article at the beginning of early Middle English. Again, the question remains why the numeral grammaticalized at that point; after all many languages have no indefinite article.

For several researchers, the ‘demonstrative/numeral vs. article’ discussion is beside the point and they regard it as a pseudo-problem created by the imposition of modern terminology on older structures. Mitchell describes the search for article use in the OE period as a futile “terminological will-o’-the-wisp” (1985: §329). Also Quirk and Wrenn state that “the existence of a ‘definite article’ in OE is a vexed question, [...] which has been raised largely by our desire to impose upon OE a terminology familiar in and suitable for ModE” (Quirk and Wrenn 1958: 70). Still, the issue merits investigation in so far as we are dealing with a category change in the grammar. The essential point is that a categorical change cannot be described properly unless the article category is sufficiently defined and until reliable corpus studies have been conducted. Handbook statements (e.g. Mitchell 1985; Hogg 1992–1999) which suggest that Old English did not have a category of articles should not be taken for granted but need to be checked by analyzing a large data set qualitatively and quantitatively.

1.2 Data and methodology

Empirically, the argumentation in this book rests on an extensive quantitative and qualitative analysis of definite and indefinite NP constructions in several OE prose texts from the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE).⁸ For analysis, the *CorpusSearch Program*⁹ and *R*¹⁰ were used. To the best of my knowledge, no existing study on the article tests its assumptions against a large text sample using a computer-accessible corpus. In addition, not many existing studies on the topic test their results for statistical significance. I will fill this empirical gap by analyzing texts using a corpus search program and by discussing the frequencies of the attested patterns, something which is usually not

⁷ Schrader (1887) claims that the numeral *ān* is already widely used as the indefinite article by Aelfric.

⁸ <http://www-users.york.ac.uk/~lang22/YCOE/YcoeHome.htm>

⁹ <http://corpussearch.sourceforge.net/index.html>

¹⁰ <https://cran.r-project.org/>

taken into account in the handbooks, although valid claims on how grammar should be modeled can only be made if one (also) takes frequency into consideration.

I have focused on prose rather than poetry and on original texts rather than translations. I support the proposition that prose has to be preferred to poetry because of the artificiality of verse form. It can be the case that in poetry a linguistic pattern is preferred due to rhythmic considerations or ornamentation. Conclusions drawn from metrical texts can, from that point of view, be deceptive as they tell us more about poetic conventions than about unmarked grammatical structures. For example, Christophersen (1939: 86) states that demonstrative usage is lower in poetry due to metrical considerations and *se* is undoubtedly more frequent in natural prose. Of course, linguistic patterns found in poetry can be informative as well and deserve to be analyzed. This could be the aim of future investigations, but in this book I will limit myself to prose texts.

Regarding prose texts, it has to be stressed that in the development of literature prose generally tends to come late. Old English prose first appears in the 9th century and continues to be recorded from then onwards. The majority of the surviving prose is sermons, saints' lives and religious works. In the given literature of those days originals are scarce and most of the manuscripts which have survived from the earliest stage are translations from Latin. Analyzing a translation might turn out to be a problem when researching article usage, as the translator possibly took over syntactic constructions from the source language which does not have a category of articles. How this may have affected the results remains to be seen. In other words, translations will have to be checked for their Latin influence (see section 6.2.1).

Fortunately, also secular, non-Latin prose exists, as for example legal documents, laws, wills, or works on medicine and geography. Secular prose is especially interesting because one can expect a certain originality in this text type (i.e. the text will not be modeled on Latin examples). Thus, I concentrated primarily on all those texts which do not constitute translations (see Table 1 below). In particular, I will often rely on a detailed qualitative analysis of the A and E manuscript of the *Anglo-Saxon Chronicle* (the *Parker* and the *Peterborough* manuscript). The *Anglo-Saxon Chronicle* is an original (non-Latin) secular text and very representative of the language used at that time (see section 5.1).

Finally, two other practical factors were taken into consideration when choosing written records to be analyzed. To analyze a large amount of data, one needs to make use of a certain search program. Additionally, as the issue in question is a syntactic one, syntactic annotation is most welcome in order to be able to search for certain structures. In the end the following manuscripts were used

as a source because they are all prose texts which cover the period of interest and are syntactically annotated in the *YCOE* corpus:

Tab. 1: Early OE manuscripts (o.2 and o.3 period) investigated ¹¹

manuscripts	filetag	period		word count	Latin translation	manuscript in YCOE
Peterborough Chronicle	PB	o.3/4	late	40,641w	original	cochronE.o34
Ælfric's Lives of Saints	LOS	o.3	late	100,193w	original	coalelive.o3
Ælfric's Catholic Homilies	CH	o.3	late	106,173w	original	cocathom1.o3
Parker Chronicle	PA	o.2/3	early	14,583w	original	cochronA.o23
Blickling Homilies	BH	o.2/3	early	42,506w	original	coblick.o23
Laws of Alfred	LAW	o.2	early	3,314w	original	colawaf.o2
Laws of Alfred Introduction	LAWI	o.2	early	1,966w	original	colawafint.o2
Laws of Ine	INE	o.2	early	2,755w	original	colawine.ox2
Gregory's Dialogues	GD	o.2/4	early	91,553w	translation	cogregdC.o24
Bede's History of the English Church	BED	o.2	early	80,767w	translation	cobede.o2
Boethius	BOS	o.2	early	48,443w	translation	coboeth.o2
Cura pastoralis/ The Pastoral Care	CUR	o.2	early	68,556w	translation	cocura.o2
Orosius	OSI	o.2	early	51,020w	translation	coorosiu.o2

The texts show regional variety and belong to different genres and centuries. This is the reason why we should not regard these texts as forming one corpus sample, but rather interpret them as separate texts to be investigated individually.

In dealing with historical data it is necessary to briefly remark on the issue of reliability. Generally, not much is known about the OE dialect situation. There are four main dialects in Old English: Northumbrian in the North, Mercian spoken in the East Midlands and the northern two-thirds of the West Midlands, West

¹¹ For further information on the investigated manuscripts see Appendix I. In the *YCOE* corpus, “texts from the Helsinki Corpus have the Helsinki period attached as an extension following PPCME2 practice. [...]. When Helsinki provides two periods, the first being period of composition, and second, period of manuscript, both periods are included in the filename” (*YCOE* manual <http://www-users.york.ac.uk/~lang22/YCOE/YcoeFiles.htm>).

Saxon spoken in the Southwest and the southern third of the West Midlands, and Kentish in the Southeast. Due to these “dialectological complexities and the fact that the bulk of surviving Old English [...] is West Saxon” (Lass 1992:35), most forms presented are from West Saxon. The problem is that in Proto-Germanic or even Old English textual evidence is regional and rare due to the chance survival of documents and the scarcity of homogenous texts. Without enough textual evidence it is very difficult to reconstruct syntax, and we can only make tentative claims about changes between Proto-Germanic and Old English. It is possible to observe linguistic change in the OE period, but often these changes rather represent inconclusive tendencies. What can be observed is the greater or the lesser use of a construction. Additionally, for the particular use of *se* and *æn*, their use in prose texts is conditioned by various factors that influence their observable frequency in the data. It seems likely that a genre like law texts will potentially include fewer definite contexts than some other text type because in law texts the referent is often indefinite.

Tracing the development of the demonstrative and numeral seems to get easier in the ME period as for this period extensive material is available. However, it is still difficult to draw up a comprehensive picture of what happened exactly from Old English to Middle English. The language recorded in the manuscripts from the end of the OE period is very different from the one in the early years of Middle English. Nevertheless, one cannot assume that the language itself generally changed as drastically and suddenly as the written records suggest. Political and linguistic dominance, which formerly had been situated in the Southwest (Wessex), shifted to the Southeast and especially the Southeast Midlands. The manuscripts written before 1100 are for the most part West Saxon, but the records of Middle English can be found farther to the North. Today’s modern standard geographically has its historical bias in the Southeast Midlands, especially in the prestige dialects of the capital and the Home Countries, not in West Saxon (Lass 1992: 23–32). According to Lass, the ‘Englishes’ of the fourteenth-fifteenth century “which are roughly precursors of ‘our English’, do not have a detailed Old English ancestry” (Lass 1992: 33). This is why some of the suddenness of the observable linguistic changes may be a textual and geographical artifact.

In other words, it remains difficult to trace the articles’ first appearance in any straight fashion to the later stage, where they are fully implemented into the system. Yet, as Hogg observes “[n]one of this means that the linguist has to give up. But it does mean that the process of linguistic investigation must proceed by deductive inference to a much greater degree than is necessary with a present-day language and, of course, that the results achieved must necessarily be that

much less certain” (Hogg 1992: 20). Any statements made in the following sections about the condition of the determinatives in early English should thus be evaluated in the light of these reservations.

1.3 The approach

The present study specifically tries to show the value of a usage-based, cognitive constructionalist approach to language change. During the last decade, the constructionist approach has been the fastest growing linguistic and interdisciplinary cognitive-functional approach to language (Goldberg 2013: 30). This is confirmed by the development of several versions of Construction Grammar (see chapter 4), the growing number of international conferences and workshops (e.g. ICCG 1–10), and the advent of new research directions (e.g. constructional morphology, application to languages other than English, typological comparative studies, computational modeling, combination of constructional analyses with sociolinguistic and discourse analytic notions, constructional approaches to language pedagogy, ...). Of course, the large body of recent publications also shows how popular the approach is (e.g. articles: Hoffmann and Trousdale 2011; Coleman and de Clerck 2011; proceedings: Fried and Östman 2004; Fischer and Stefanowitsch 2007; Butler and Arista 2009; Boogaart, Coleman and Rutten 2014; Barðdal et al. 2015; Yoon and Gries 2016; Ruiz de Mendoza Ibáñez, Luzondo Oyón and Pérez Sobrino 2017; Coussé, Andersson and Olofsson 2018; monographs and handbooks: Hoffmann and Trousdale 2013; Traugott and Trousdale 2013; Ellis, Römer and O'Donnell 2016; textbooks: Croft and Cruse 2004; Hilpert 2014; Ziem and Lasch 2014; and an academic journal: *Constructions and Frames*).

Since Israel's seminal paper (1996), many historical linguists also “see an excellent fit between the mechanisms of syntactic change and the basic principles of Construction Grammar” (Barðdal and Gildea 2015: 9). Construction Grammar is considered a useful tool for diachronic analysis (Fried 2009: 1) because its architecture invites us to think “about change in form and meaning equally, as well as the creation of and changes to links between constructions in a network” (Traugott and Trousdale 2013: 231). Especially a usage-based, cognitive constructionalist approach lends itself very well to modeling morpho-syntactic change (e.g. grammaticalization) as it understands change as a gradual, incremental bottom-up process and stresses the importance of frequency effects, analogical reasoning, and entrenchment. Grammar is an emerging phenomenon and linguistic change happens through use. This is also an important aspect which distinguishes a usage-based approach from the structuralist paradigm. Whereas in a structuralist paradigm, syntacticians focus on detailed formal representations of

linguistic structure, in a usage-based approach the focus of research is more concerned with the dynamics of the grammatical system (Diessel 2015: 297).

The line of argumentation in this book is partially inspired by the synchronic work of Langacker (1987, 2008), Goldberg (1995, 2006, 2009, 2013), Tomasello (2003a,b), Croft and Cruse (2004), Hawkins (2004), Bybee (2007, 2010), and the diachronic proposals of the following scholars: Fischer (2007, 2008, 2010), De Smet (2009, 2013), Traugott and Trousdale (2010, 2013), Van de Velde (2010, 2014), Hoffmann and Trousdale (2011, 2013), Hilpert (2013, 2014), Diessel (2011, 2015), Petré (2014), Trousdale (2014) and Torrent (2015). Moreover, functional and cognitive thoughts on linguistic categorization, gradience and gradualness strongly influence the reasoning in this book (Taylor 2003; Aarts 2004, 2007a,b; Denison 2006; Croft 2001, 2007; Traugott and Trousdale 2010).

Diachronic Construction Grammar with a cognitive outlook aims to “make statements about the [internal] linguistic knowledge of earlier generations of speakers” (Hilpert *forth.*) and – among other things – adheres to the following tenets which will be discussed in much more detail in chapter 4 and which are highly relevant for the line of argumentation presented in this book:

- Language is a ‘Complex Adaptive System’ (e.g. Gell-Mann 1992; Ellis and Larsen-Freeman 2009) that is shaped by domain-general, cognitive processes. Grammar is non-modular and usage-based and all grammatical generalizations (e.g. syntactic categories) are derived from the user’s experience with language. Structure emerges through repetition, categorization and conventionalization rather than resulting from a pre-existent innate matrix. All grammatical generalizations like syntactic categories or word classes are language specific and derived from the user’s experience with language as a response to the pressure of discourse (Bybee and Hopper 2001: 18; Bybee 2010; Diessel 2015).
- Grammar consists of surface-oriented ‘form-meaning pairings’ (constructions), which can be atomic/substantive (e.g. words) but also complex/schematic. This means that they can have sequential structure with fixed positions and positions that are open. The distinction between lexicon and syntactic rules is given up and lexical and grammatical expressions belong to different poles of a continuum (Croft 2001: 17; Boye and Harder 2012: 1).
- All the constructions of a language together form the ‘constructionicon’: “a structured inventory, which can be represented by multiple inheritance networks” (Croft and Cruse 2004: 262–265). Constructions are conceptualized as nodes connected via links in a network. Individual related constructions are connected as constructional families in taxonomic and meronymic networks. The formal and functional diachronic development of linguistic forms and

constructions is influenced – among other things – by the related constructions in the network. For example, more substantive constructions can exert influence on complex abstract schematic constructions and vice versa (Barðdal and Gildea 2015: 23).

- As constructions are based on generalizations over actual utterances, input frequency influences the emergence and entrenchment of abstract grammatical constructions. In general, a certain degree of type and token frequency is necessary to uncover the structure of any linguistic input. Here, the frequency of specific instances of constructions influences and restricts the categories to fill the schematic slots in constructions (Goldberg 2006: 39, 98–101; Bybee 2010: 9; Hoffmann and Trousdale 2011: 5; Diessel and Hilpert 2016: 1).
- Linguistic gradience is seen as “an undeniable property of any categorial system, including grammatical descriptions” (Aarts 2004: 3). Syntactic categories are language specific and gradient with more prototypical/central and less prototypical/peripheral members allowing for degrees of membership.¹² This synchronic (gradient) architecture of grammar is the result of diachronic gradualness.
- Diachronically, ‘constructionalization’ (i.e. the emergence and entrenchment of a new form-meaning pairing) but also the potential marginalization of a construction can not only be influenced by discourse-pragmatic preferences (functionally driven), but also by ‘blind’ frequency effects and cognitive and systemic factors, like analogical reasoning.
- The grammaticalization of an individual gram is reconceptualized as the constructionalization of a form-meaning pairing which is more schematic, more procedural, more productive and less compositional than its source construction (Trousdale 2014: 564–566).

Investigating the development of the articles in English offers an excellent opportunity to show in more detail what is meant by such statements. Next to presenting an answer to the questions what an article really is and if Old English had one (thereby discussing issues like linguistic gradience and the fuzziness of categorization), this book is a first attempt to partially sketch the constructional family of (in)definite NP constructions in Old English as well as the changing links between those constructions. In short, this monograph takes a cognitive constructional network approach.

12 Such a suggestion corresponds to ‘goodness of exemplar’ or to ‘degree of membership’ in prototype theory (Denison 2006; Aarts 2004, 2007a,b; Rosenbach 2006; Croft 2007).

It will be argued that complex analogy and frequency effects are the main motivating forces behind the observable linguistic change. The frequency with which one encounters certain linguistic items affects cognitive representations and categorization. As Diessel and Hilpert point out “[f]requency is not just a performance phenomenon, distinct from mental grammar. Rather, the frequency with which linguistic forms are experienced is at the heart of our grammatical knowledge” (Diessel and Hilpert 2016: 21). At the same time the linguistic structure of a particular language is based on analogy. Analogy will be treated as a “psychologically real phenomenon which has causal efficiency both in language as in culture [and is not simply a] descriptive device” (Itkonen 2005: xii). Analogy will be conceptualized in a wider sense as ‘rule generalization/extension’ at a higher meta-linguistic level (Traugott and Trousdale 2010: 36). This contrasts with the classical concept of analogy which is now known as ‘four-part’ analogy and ‘leveling’. As Fischer points out “the formal similarity of patterns and the adjacency (contiguity) of signs are [...] an important formal force in grammaticalization” (Fischer 2007: 122).

From a constructionalist point of view, OE *se* and OE *ān* are fully specified atomic constructions which are used as functional elements in larger more complex noun phrase constructions. I will show that grammaticalization of the two forms reflects the establishment of two complex, schematic constructions with a fixed determination slot in the prehead of the noun phrase. More specifically, I will propose that the development of the articles in English is a 5 step process. In a 1st step, an abstract definite NP schema with a functional determination slot constructionalizes sometime in early Old English. Due to systemic reinterpretation (neoanalysis), OE speakers – based on the majority patterns in their linguistic input – conclude that definiteness marking is obligatory in a specific prehead position. Influenced by the high frequency of three definite OE NP constructions (e.g. $[[\text{DEM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$, $[[\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$, $[[\text{GenP}_{\text{infl}}] + [\text{CN}]]_{\text{NPdef}}$), the speakers analogically abstract a pattern preference for $[[\text{DET}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ which finally, together with other constructional influences, licenses the conceptualization of an abstract construction with a local determination slot:

$$[[\text{DET}_{\text{def, infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NPdef}}$$

This construction is a form-meaning pairing in the following sense: on the construction’s ‘semantic side’ we find ‘the concept of definite reference’ which is formally expressed in the grammar by an NP with a fixed determination slot which has to be filled obligatorily. This reanalysis of the linguistic system (from definiteness marking being optional to definiteness marking becoming obligatory)

increases systemic simplicity and processing efficiency (Hawkins 2004, 2015) and happens due to complex frequency and analogy effects. I will also argue that this construction has emerged earlier than some handbook accounts, which consider definiteness marking in Old English as more optional than it really was, may suggest. The existence of this abstract schema in a 2nd step leads to the recruitment of *se* as a default filler which triggers the grammaticalization (phonetic and semantic reduction, increase in frequency,...) of the demonstrative. A lexically underspecified slot is an ‘attractor position’ and has the potential of recruiting fillers (Bisang 1998). *Se* is co-opted for acting as the default definiteness marker, or default slotfiller (= definite article). In constructionalist terms this means that a new atomic construction constructionalizes, which is more procedural than its source. While the demonstrative has richer semantics on its meaning side {spatial (situational) proximity} the emerging article construction has a more bleached, more abstract function as an intertextual definiteness marker.

Later in time, in a 3rd step, another abstract construction is added to the family of NP constructions (via analogy) at the beginning of Middle English:

$$[[\text{DET}_{\text{indef,infl}}]\text{DETERMINATION} + [\text{CN}_{\text{count,sg,infl}}]\text{HEAD}]\text{NP}_{\text{indef}}$$

In this indefinite NP construction indefinite singular reference also has to be marked overtly in the determination slot with singular count nouns. For various reasons, which will be outlined in chapter 7, the speakers also start to mark indefiniteness in those cases overtly. This construction competes with another indefinite NP construction, in which indefiniteness does not have to be marked by an overt element in grammar and where leaving the slot empty (zero marking) is indicative of indefinite reference (e.g. $[[\text{CN}_{\text{infl}}]]\text{NP}_{\text{indef}}$). As a 4th step, the existence of this indefinite NP construction triggers the grammaticalization of the numeral *ān*. Again, the emerging article *a/an* is a more procedural construction than its source construction (i.e. the numeral). This, as a 5th step, leads to a complete systemic reorganization of referential NPs with the emergence of a highly general schema $[[\text{DET}]\text{DETERMINATION} + [\text{CN}]\text{HEAD}]\text{NP}_{\text{preferential}}$, which ultimately also triggers the grammaticalization of the quantifiers *some* and *any*, which also function as indefinite articles in Present Day English. It will be concluded that the two elements *se* and *ān* did not grammaticalize on their own but in the context of emerging schematic constructions with a slot. A much more detailed discussion of the postulated constructions and their constructionalization can be found in chapter 7.

Note that Diachronic Construction Grammar is still a very young endeavor, which is why many theoretical questions have only been touched upon inconsistently so far. Many model-internal concepts have not been discussed explicitly

enough (i.e. inheritance, horizontal links in the network, constructionalization,...) and only a handful of monographs or case studies exist which apply the developed theoretical tenets to specific diachronic phenomena. However, I believe that it is only by hands-on application that the strengths and weaknesses of a constructionalist model can be made visible for our field. By addressing several meta-theoretical questions, the project contributes to the further development of a diachronic constructionalist model. Ultimately, every linguistic theoretical model is nothing more than “a heuristic device” which “cuts away some reality, as facts are cleaned up” (Fischer 2007: 56, 82). Obviously, each linguist has his/her own point of view, which s/he believes is ‘true’ and every linguist in one way or another manipulates the linguistic landscape depending on the kind of pictures s/he wants to see (Lass 1997: 3). Being fully aware of these contingencies, this book nevertheless aims to present some explanations which contribute to the research conducted so far.

1.4 Goals and limitations

Dealing with the articles in English and their diachronic development, one needs to be aware of the multi-layered character of the phenomenon. On the level of linguistic description, it is obviously necessary to study the various diachronic stages of English and its ancestors. A deeper understanding of Old and Middle English is required as these periods set the stage for the rise of the article category. Due to length restrictions and to avoid unnecessary complexity, this book excludes a detailed account of the OE compound demonstrative *þes* and its potential development into *this* as it has been shown that this development is only indirectly related to article development. Also note that with regards to Middle English and later developments, I will not present my own data analysis but rely and report on the studies of others (see e.g. Rissanen 1967; Davidse, Breban and van Linden 2008; Breban 2008, 2010 on category shift in the prehead).

It is also important to have some general knowledge regarding the English noun phrase and its characteristics (especially nominal determination). The articles are essential parts of the noun phrase marking (in)definite reference. Therefore, the notion of (in)definiteness and referentiality will also have to be discussed. However, this book does not claim to be an in-depth analysis or authoritative treatment of English NP syntax. Outside the target language, the situation of the definite article in other Germanic languages at that time should be of interest as well. Although the development of the articles in the Germanic languages seems similar on the surface level, it is not completely identical. Thus, the differences might also tell us something about the catalysts behind article

formation. Nevertheless, this study does not empirically analyze parallel developments in related languages, although I am aware that such typological comparative research should be carried out in the future.

Various linguists interpret the development of the articles as a functionally motivated grammaticalization process par excellence, others as formal reanalysis or parametric change. This puts us on a meta-theoretical level discussing basic commitments of functionalism and formalism. The belief that a Cognitive Construction Grammar approach offers the best explanations links the phenomenon to the field of cognition and how the human mind conceptualizes and categorizes the world. It is thus necessary to study the latest research findings in those areas. As this book is a usage-based study, choosing an appropriate corpus-based methodology is crucial, with all its problems regarding the representation and reliability of data. In short, dealing with the English articles turns out to be a risky business! Discussing all the issues at once is simply impossible. What this project tries to do is to shed light on one particular phenomenon and explain it from a particular perspective. This raises enough questions on its own. Throughout the book, the following theoretical issues will be discussed in detail:

- The role of frequency, entrenchment, analogical thinking, economy and neoanalysis as driving forces of linguistic change (e.g. Fischer 2007, 2008, 2010; De Smet 2009)
- The characteristic features of constructional networks (nodes and links) and changes to them; especially constructionalization (node creation) and constructional network reconfiguration (Traugott and Trousdale 2013; Hilpert 2013; Petr   2014; Torrent 2015)
- The difficult nature of categorization and category emergence (gradience and gradualness, e.g. Aarts 2004, 2007a,b; Aarts, Denison, Keizer and Popova 2004; Denison 2006; Traugott and Trousdale 2010)

The overall goal of the book is to show that a Diachronic Construction Grammar model can answer when (approximately), how and why the definite and indefinite article emerged. This book, with all its suggestions, is supposed to complement and add to current views on the subject.

1.5 Outline of the book

The present study is organized as follows: chapter 1–4 set the scene and offer the necessary background information for the empirical part of the book, presented in chapter 5 and 6. Terminological and conceptual clarity are a prerequisite before we can discuss *se* and *  n*, their OE usage and diachronic development. That

is why in section 2.1 the notion of headedness and referentiality will be introduced. This section also establishes basic facts regarding the English noun phrase zones and nominal determination in particular. On top of that, some of Halliday's and Langacker's ideas about NP functions will be presented. Section 2.2 discusses article usage in Modern English, especially the semantics of definiteness/indefiniteness, the articles' frequency distribution and occurrence restrictions with particular nouns. Section 2.3 is about categorization and setting up a definition and criteria for articlehood.

Chapter 3 presents how *se* and *ān* were used in Old English and why it is problematic to classify them as articles (section 3.1). Previous research on article development is discussed in section 3.2. Starting with traditional philological views on the development of the articles with a special focus on case loss and on language contact (section 3.2.1), I will continue to present functionalist and generative proposals for the development of the articles. Studies will be compared which either conceptualize article emergence as a grammaticalization phenomenon or as categorical reanalysis from Spec to Head position (section 3.2.2–3.2.3). Section 3.3 offers some preliminary conclusions and sets the scene for chapter 4.

Chapter 4 introduces Diachronic Construction Grammar. In the first part of the chapter (section 4.1), I discuss the basic tenets of Cognitive Construction Grammar. The 'construction' as a linguistic 'form-meaning pairing' will be introduced and different definitions will be discussed. To fully understand the characteristic features of a construction, notions like entrenchment and compositionality are briefly revisited in section 4.1.1. Additionally, the nature of the 'constructicon' will be investigated, e.g. the vertical and horizontal links between constructional nodes (section 4.1.2). In the next section 4.2, a usage-based, cognitive constructionalist model of linguistic change will be outlined discussing the role of frequency and entrenchment, particular types of changes (e.g. 'constructionalization *novo loco*' vs. 'constructionalization *in situ*'), the reconceptualization of grammaticalization as 'grammatical constructionalization', the influence of analogical thinking on neoanalysis, and the gradient nature of categorization (section 4.2.1–4.2.5). Chapter 4 closes with a section on what I believe to be the strongest contribution of a cognitive constructionalist model when explaining language change (section 4.3).

Chapter 5 and 6 present all the empirical evidence and discuss whether a definite or indefinite article existed in Old English. Chapter 5 exclusively investigates nominal determination in the *Anglo-Saxon Chronicle*. First, some information about the two investigated manuscripts is provided in section 5.1; afterwards some basic determination patterns will be discussed (section 5.2). Among other

things, it will be shown that *se* is the most frequent determinative by far. Moreover, I will focus on noun phrases with adjectival modification in section 5.2.2. Section 5.3 includes a study about the diachronic increase of *se* in the annual entries of the *Peterborough* and *Parker Chronicle*. Section 5.4 focuses on the function and frequency of *ān* in the two manuscripts. Next, I test and evaluate the criteria for articlehood, which have been set up in section 2.3. It will be shown that not all the criteria are useful to demarcate the category. Ultimately, a distinction will be made between primary and secondary criteria and some criteria will be dismissed (sections 5.5 and 5.6).

After analyzing the *Chronicle*, my investigation will be extended to several of the earliest available prose texts in Old English (chapter 6). I will apply the remaining, useful criteria in order to test if *se* and *ān* function as articles. Here, especially the relative position of the demonstrative, some interesting co-occurrence patterns (e.g. possessive+demonstrative in the same NP) and the optionality of (in)definiteness marking will be analyzed in great detail (section 6.2–6.4). This chapter is where I will show that the existence of articles in English should be coupled to the emergence of a functional determination slot. As a conclusion to the chapter, a possible time window for category emergence will be proposed in section 6.5.

Chapter 7 outlines how a constructionalist approach conceptualizes the particular phenomenon of article emergence. This chapter also hypothesizes about the reasons behind the potential grammar change. The chapter starts by revisiting some basic notions of Construction Grammar and by applying the terminology on to OE data in an exemplary manner. I will present my personal annotation conventions which I will specifically adopt later. Afterwards, the postulated steps of article development will be discussed using the established constructional terminology and annotation.

I will begin by discussing the 1st assumed step in the development, namely the emergence of an abstract definite NP construction in section 7.1. I will show how the constructionalization of a determination slot is shaped by strong entrenchment (via frequency effects) and analogical reasoning (section 7.1.1). To visualize the cognitive internal processes which trigger the development, a cognitive cycle of constructionalization is postulated in section 7.1.2. At the same time, the development is a case of neoanalysis (section 7.1.3), but I show that this realignment is preceded by analogical thinking. I also propose that the observable process is a case of systemic simplification due to social accommodation pressures.

In section 7.2 I will shed light on the recruitment of *se* as a default slotfiller. The grammaticalization of the demonstrative is reconceptualized as the constructionalization of a new form-meaning pairing which is more procedural (e.g. more schematic in meaning) than its source construction. Afterwards I will sketch the second major network change, which is the addition of an indefinite abstract construction and the recruitment of *ān* (section 7.3). Finally, I talk about the last step in the process, namely the recruitment of *some* and *any* as indefinite articles for plural and mass nouns. Section 7.5 deals with additional factors that may have also supported the development of the articles. While section 7.5.1 discusses syntactic heaviness and weight preferences in the prehead as a potential factor,¹³ section 7.5.2 zooms in on Hawkins' idea of performance economy. It will try to convince the reader that consistent obligatory (in)definiteness marking increases processing efficiency. At the same time, I agree with traditional functionalist approaches that the development of overt (in)definiteness markers increases communicative efficiency. Section 7.6 once again summarizes the changing strategies for (in)definiteness marking in the history of English.

Chapter 8, as the monograph's conclusion, summarizes the book but also relates the results to open questions in Diachronic Construction Grammar and future research. In Appendix I, the reader finds detailed information about the manuscripts.

13 It seems to be the case that OE speakers want to avoid NPs with a bare common noun as head.

2 Nominal determination and the articles in Present Day English

The definite and the indefinite article are the most common and the most basic of the determiners. (Biber et al. 1999: 260)

Achieving an adequate analysis of the structure of the Modern English NP has proven to be a challenging task. Among the many problems have been the difficulties of analyzing the relationship between the items traditionally labeled demonstratives, definite and indefinite articles, possessive adjectives, possessive pronouns, quantifiers, numerals and simple adjectives. The co-occurrence restrictions and ordering rules of these items are complex and filled with many idiosyncrasies. (Ackles 1997: 46)

The overall aim of this book is to argue that a cognitive constructional network approach is the most fruitful way to conceptualize the observable change from demonstrative/numeral to article. This constructionalist scenario will be presented in detail in chapters 4 and 7. For now it suffices to say that the definite and the indefinite article are classified as atomic/specified constructions while noun phrases are conceptualized as more abstract constructions of varying complexity and schematicity. In order to fully understand the line of constructionalist argumentation, this chapter will now present some important basic terms and concepts related to nominal determination and noun phrase structure, which will be used in the chapters to come. Nominal determination has been researched extensively from various angles and – as with every linguistic topic – different researchers often use different terminology and definitions, which has sometimes led to confusion when discussing article development. The aim of this chapter is to minimize such confusion by providing the terminological clarity required for a proper description of the observable categorical change.

The definite and indefinite articles are essential elements of most English NP constructions (see frequency distribution in section 2.2.5). Both elements primarily occur with common nouns and have been classified as ‘determiners’. Determiners are dependents only found in the prehead of NP constructions and their function is to overtly specify the type of reference (e.g. definite or indefinite). At the same time, most (but not all) determiners anchor the referent in discourse (Payne and Huddleston 2002: 356). Apart from the articles, also demonstratives and quantifiers are said to belong to this category. To understand this class better and in order to fully grasp what is meant by ‘articles function to mark (in)definite reference’, this section presents some functional and cognitive NP models and discusses notions like headedness, dependence (prehead/posthead dependents)

and referentiality (section 2.1). Afterwards, the semantics of definiteness and indefiniteness will be examined (section 2.2). Definiteness is a compositional notion which involves several components like identifiability, familiarity, uniqueness and inclusiveness. Sections 2.2.2 and 2.2.3 discuss many linguistic examples to show how the definite and indefinite article are used in referential and non-referential noun phrases in Present Day English. Finally and most importantly, I will try to develop a set of clear, testable criteria for the article category in English (section 2.3).

The question as to when the articles developed in English heavily depends on how we define the article category in the first place and which grammatical features we believe to be affected by the postulated change from demonstrative/numeral to article. In other words, it is necessary to define ‘articlehood’. So far, proposals to define the category have remained rather vague. Many authors simply avoid defining the category or evade setting up demarcation criteria for membership. Those who provide a definition either opt for a language specific definition or for a typologically valid one. Moreover, some definitions concentrate on formal characteristics while others highlight discourse-pragmatic features. In addition, it is not always easy to decide on what grounds an “adnominal dependent in a given language or language stage is in fact a determinative or a modifier that is conveniently (‘parasitically’) used for expressing definiteness, deixis, etc.” (Van de Velde 2010: 266).

All this leads to a plethora of definitions, which are often complementary and difficult to compare. This obviously makes it even more important to provide a working definition of the article category. In order to develop such a working definition, I will evaluate seven criteria for ‘articlehood’ which have repeatedly been used in the literature to demarcate the English articles. It remains to be seen which of these criteria are useful and help to successfully demarcate between a demonstrative and a definite article or a numeral and an indefinite article.

Note that some of the ‘hard facts’ which are presented in the following sections are still highly disputed among syntacticians. For example, the number of prehead slots/zones and their function is a matter of ongoing debate (see section 2.1.2). Moreover, I will only discuss structures, concepts and terms which are relevant for the analysis to be proposed. I will concentrate on canonical simple noun phrases with a noun as their head. Non-canonical structures like binominals or elliptical constructions will not be discussed. Also, I will zoom in on the prehead and will not discuss posthead structures in any detail.

2.1 Noun phrase structure

Most contemporary models of grammar assume that sentences are composed of constituents which group together to compose larger phrasal structures. Such larger phrasal constituents differ in their structure and also in their grammatical function, which is why they get subsumed under different categories. Constituents are called ‘phrases’ when they contain “a central and most important word augmented by appropriate accompanying words that elaborate its contribution to the sentence” (Pullum and Huddelston 2002: 22). One of those phrasal structures is the noun phrase. Although the typological universality of the noun phrase is a debated issue, all large scale comprehensive handbooks (Quirk et al. 1985; Biber et al. 1999; Huddleston and Pullum 2002) as well as linguists from different theoretical backgrounds “accept their existence [in English] as phrasal constituents constructed around the minimal category noun” (Martínez-Insua and Pérez-Guerra 2011: 202).¹⁴

The English noun phrase has not only been described in functionalist (e.g. Keizer 1992, 2007; García-Velasco and Rijkhoff 2008; Halliday and Matthiessen 2014), cognitive (e.g. Langacker 1991; Hawkins 2004) and generative models (e.g. Abney 1987; Coene and D’hulst 2003a,b; Alexiadou, Haegeman and Stavrou 2007) but has also been studied from a typological (Rijkhoff 2002) and diachronic angle (e.g. Adamson and González-Díaz 2009; Van de Velde 2009; Martínez-Insua and Pérez-Guerra 2011; Ghesquière 2014).¹⁵

According to Keizer’s functional definition, noun phrases are expressions whose “primary function is to refer to an entity” (Keizer *forth.*). Here, it is crucial to understand that the entities noun phrases refer to are not entities in the external physical world but rather mental representations of entities in a speaker’s mind (Keizer 2008: 211–212; also see Rijkhoff 2002: 27). Also Martínez-Insua and Pérez-Guerra (2011: 202) elaborate on the semantic and discursive functions of noun phrases:

¹⁴ For example Rijkhoff (2002: 8–9) points out that in some languages a major distinct class of nouns appears to be lacking as the nouns cannot be distinguished from other major word classes (verbs, adjectives) and even if a language has nouns it does not necessarily mean that this language has noun phrases as well. As will be shown in chapter 4, in Construction Grammar phrasal structures and categories are usually considered to be usage-based and language specific. However, there are some recent constructionalist papers exploring semantic universals and cross-linguistic commonalities (Hilpert and Östman 2015).

¹⁵ Thoughts on the diachronic emergence of and changes within NP structure will be presented in section 4.2 and chapter 7.

From a semantic point of view, noun phrases are commonly defined as expressions of reference, that is, as linguistic materialisations of extralinguistic concepts, and not of attributes, events, actions, relationships, circumstances, etc., which are prototypically expressed by other phrasal categories. (Martínez-Insua and Pérez-Guerra 2011: 202)

They continue by assuming that “the semantic goal of a noun phrase is presentative in the sense that, by uttering a noun phrase, the speaker is activating a referent in current discourse” (Martínez-Insua and Pérez-Guerra 2011: 203). For Halliday, the English noun phrase, “taken as a whole, has the function of specifying a class of things [...] and some category of membership within this class” (Halliday 1985: 180). In Cognitive Grammar, the noun phrase is defined as a unit which “profiles a thing construed as an instance of some type [or process] and further incorporates some specification of quantity and grounding” (Langacker 1991: 54; also see section 2.1.3 below for details on NP structure from a Cognitive Grammar perspective).

2.1.1 Headedness: nouns as prototypical NP heads

Like other phrases, the noun phrase is said to be endocentric; i.e. it is assumed to have one element that functions as its head with various types of optional dependents. As the noun phrase is prototypically headed by a noun in most cases and as phrases are usually named after their heads, phrases including nominals have been termed noun phrases (Biber et al. 1999: 230–291). However, the structure of a noun phrase does not have to follow the classical pattern with an overtly expressed noun as the head. It need not contain a noun at all (e.g. *the poor* or *I need some screws but can't find any*) or it may take the form of a definite pronoun (*He is a great guy*) in which case there are typically no dependents (Huddleston and Pullum 2002: 56, 410–424).

In general, the head status of the noun has been a controversial issue. In the generative paradigm, determiners rather than nouns are assigned head status for several reasons. Inspired by the work of Abney (1987), almost all generative grammarians assume

that the theory of grammar would benefit from an analysis which starts with a minimal category noun and which constructs an NP node that is a complement to the determiner (D), the whole constituent becoming a DP (Martínez-Insua and Pérez-Guerra 2011: 204).

In contrast to such an analysis (see section 3.2.3 for details), this book will adopt a functional-cognitive prototype approach and assume that if any element deserves head status, it should be the noun. The noun is the nucleus of the phrase

and, from a semantic point of view, determines the type of entity involved. Additionally, the noun complies with the semantic selection restrictions of the verb due to the fact that the noun determines the type of entity involved. Moreover, it is often obligatory and responsible for subject-verb agreement (when the subject is a noun phrase), it carries inflection, can head a noun phrase alone and as an antecedent influences the choices in subsequent pronominalization (Keizer 2007: 9; forth.). Also, for a usage-based approach frequency is crucial. While there are many noun phrases which include no determiner, noun phrases which have no noun in them are not very frequent (Payne and Huddleston 2002: 357).¹⁶

Traditionally, elements are classified as nouns if they meet certain semantic and morphosyntactic (formal) features. However, no single criterion exists that clearly distinguishes nouns from other word classes. Formalists primarily identify nouns via the derivational suffixes they typically take (either derivational, such as *-ness*, or *-(t)ion*, or inflectional, such as the plural ending *-(e)s*) and via their distribution (i.e. they are elements which typically follow a determinative, numeral or adjective). Additionally, nouns (when part of a noun phrase) occur in argument position and can function as the antecedent of the pronoun *one* (e.g. Haegeman and Gueron 1999: 54–55; Carnie 2013: 48–49). In contrast, functional and cognitive linguists highlight the semantic and discourse-pragmatic features that nouns have: they are elements which designate a particular type of referent in some extra-linguistic domain.

For Langacker, nominal predications are conceptually autonomous; they relate to conceptually independent entities and invoke concepts that are independently meaningful. In other words, a noun is an expression which profiles a thing/entity (Langacker 2008: 104–108). In contrast, a verb is a relational predication. It encodes a relation which establishes a relationship between two entities.

A nominal predication presupposes the interconnections among a set of conceived entities, and profiles the region thus established. On the other hand, a relational predication presupposes a set of entities, and profiles the interconnections among these entities. (Langacker 2002[1991]a: 74–5)

Biber et al. also remark that “[n]ouns are the main lexical means of referential specification” (Biber et al. 1999: 232), although not all nouns are always used to

16 It would go beyond the scope of this section to discuss the issue of so-called headless noun phrases or binominal noun phrases where one often has difficulty to decide which nominal has head status; see e.g. Huddleston and Pullum (2002) for fused-head constructions, Keizer (2007) for (pseudo-)partitives, and Günther (2001) for ellipsis.

refer to an entity (see section 3.1.3 below for non-referential cases). Thus, in summary, it is possible to define the prototypical noun on the basis of the criteria just mentioned:

[A] linguistic item which is characterized by certain (derivational and inflectional) suffixes and a certain distribution, which denotes a specific type of entity ('cat', 'dog'), and which is used to refer to a token of this type of entity (a particular cat or dog). (Keizer forth.)

Nouns are traditionally grouped into a small number of classes which differ in meaning and grammatical behavior; a generally accepted subdivision is given in Table 2:

Tab. 2: The most important noun classes (Quirk et al. 1985: 247)

nouns				
proper	common			
	count		non-count	
	concrete	abstract	concrete	abstract
John, Paris	book, toy	skill, difficulty, remark	ink, butter	music, knowledge

Grammarians distinguish between common nouns and proper nouns. Common nouns are the largest class, which comprises words denoting all kinds of physical objects, substances and abstract entities (Huddleston and Pullum 2002: 107). The class of common nouns is traditionally separated further into count nouns, denoting countable entities and non-count nouns, denoting masses. Both of them are further divisible into concrete (accessible to the senses, observable) and abstract nouns (typically non-observable and non-measurable). Count nouns can either be singular or plural, whereas non-count nouns are normally singular. Generally, not all count nouns have singular and plural forms. There are plural-only nouns (*cattle, clothes*) including the large group of bipartites (*trousers, scissors*) as well as singular-only nouns (*measles, mathematics*) (Payne and Huddleston 2002: 340–348). Countable nouns are much more frequent than uncountables and singular nouns outnumber plural nouns (Biber et al. 1999: 217, 243).

According to Langacker “[a] count noun profiles a thing construed as being discretely bounded [...] within the immediate scope in the domain of instantiation” (Langacker 2008: 131–132). The term boundedness relates to whether a quantity is understood as having inherent boundaries or not. For example, a book

has an identifiable boundary. Because count nouns are bounded they are replicable (i.e. they can take a plural like *books*). In contrast, a mass noun “referent is amorphous and not inherently limited” (Langacker 2008: 131). Unbounded mass nouns like *ink* do not have inherent edges and can neither be individuated nor counted.¹⁷

Proper nouns are normally names of specific people, places, months, days, etc. and differ from common nouns in several ways. They generally have “unique denotation” (Quirk et al. 1985: 288), are usually written with a capital letter, have no plural form and, in the case of Present Day English, usually take no adnominal dependents. Proper nouns do not need an article because they name instances and do not denote classes. They are used in situations where the speaker and the addressee know which individual is referred to without any further specification. In that sense they are inherently definite (Biber et al. 1999: 241).¹⁸

Importantly, the “contrast between types of nouns is not a simple reflection of reality, but rather reflects how we choose to conceptualize the entities which we want to talk about. This is particularly clear with nouns which can be countable or uncountable” (Biber et al. 1999: 243). Let us take the example *stone*. Whereas in (a) *The house is made of stone* we are dealing with the non-count material, in (b) *He collected five stones* we are dealing with a countable object.¹⁹

2.1.2 The determiner position in functional ‘slot’ models

The internal structure of noun phrases can be very simple (consisting of one word only) but also extremely complex (consisting of very long sequential strings). The head may be accompanied by one or more dependents. Those dependents are

¹⁷ Bounding is only one parameter that distinguishes between count and mass nouns. Other parameters are homogeneity vs. heterogeneity, expansibility vs. contractibility, replicability (see Langacker 2008: 139–142).

¹⁸ A further distinction can be made between proper nouns and names. A name functions as a single unit with respect to grammar even if it may consist of more than one word. Such composite names may be grammatically analyzable (i.e. may contain an adnominal dependent like, for example *King’s college*, *the Black Forest*), but they do not allow the insertion of words or change in inflection; e.g. *The Hague* cannot be transformed into **The beautiful Hague* (Quirk et al. 1985: 288). For borderline cases between PN and CN see Biber et al. (1999: 242).

¹⁹ Sometimes also proper nouns take on the characteristics of common nouns (Quirk et al. 1985: 288). In a sentence like *All of them wanted to be Shakespeares* the proper noun is ‘reclassified’ as a common noun. Similarly, in a sentence like *The old Dr. Brown I know* we find modification and determination of the proper noun. For further information on reclassification and dual class membership, see Quirk et al. (1985: §5.4–5.9).

added either obligatorily or optionally in pre- or posthead position. Depending on the syntactic and semantic connection between the constituents which precede or follow the noun, dependents are traditionally divided into three groups, namely determiners, modifiers and complements and are classified as either internal or external dependents. Whereas determiners and other prehead modifiers are seen as external dependents, post-modifiers and complements are classified as internal dependents (Quirk et al. 1985: 62; Payne and Huddleston 2002: 330–331; Martínez-Insua and Pérez-Guerra 2011: 207).

One well known trait of the English noun phrase is that there are strict ordering principles which govern the specific linear order of the potentially long pronominal string. This is why many functionalists have proposed noun phrase models with fixed positional functional slots/zones which reflect the order of pre- and posthead elements in complex noun phrases. Most of those models are unlayered descriptions of word order configurations with two levels of representations: form and function. What I mean by unlayered is that the model does not show in what way particular elements have scope over other elements. Word classes are grouped depending on which functional slots they can fill. Table 3 shows an adapted version of the well-known NP model by Quirk et al. (1972, 1985).

Tab. 3: Modern English NP Structure (adapted from Quirk et al. 1972: 146; Quirk et al. 1985: 253–331; 1238–1287)

Prehead			Head		Posthead*
Determination zone			Modification zone		Complementation zone/
Predet.	Determiner	Postdet.	(Zones I-IV)**		Post-modification zone
<i>all</i>	Articles	Ordinals	Adjectives	Common	PPs
<i>both</i>	Demonstratives	Cardinal	Adjective phrases	nouns	Non-finite clauses
<i>half</i>	Possessives	numbers	Genitive phrases	Proper nouns	Finite clauses
<i>such</i>	Universals	Quantifiers	Participles	Pronouns	(e.g. Relative Clauses)
<i>what</i>	Existentials		Nouns/nominals	Adjectives	Appositive NPs
<i>by far</i>	Disjunctives			Existentials	Non-appositive NPs
Multipliers	Distributives				
Fractions	Interrogatives				
	Genitive phrases				

* Note that the complementation zone and the modification zone in the posthead are grouped together. However, complementation precedes modification.

** Certain ordering principles for prehead modification exist and Quirk et al. (1985: 437) distinguish four sub-zones: (I) Precentral, (II) Central, (III) Postcentral and (IV) Prehead.

Determiners are dependents found exclusively in the NP prehead and are positioned left of modifiers. The following elements are considered to belong to this class in Modern English: the articles *the* and *a/an*; the demonstratives *this/that*, *these/those*; possessive determinatives *my*, *her*, etc.; universals *all*, *both*; existential determinatives *some/any*; quantifying determinatives *some*, *many*, *much* etc.; ordinal and cardinal numbers *one*, *two* *three*, *first* etc.; the negative particle *no*; disjunctives *either*, *neither*; distributives *each*, *every*, etc.; and interrogative/relative determinatives *which*, *what*.²⁰ Also other elements (e.g. genitive phrases and quantifying NPs *a few*, *a little*) can function as determiners.

Following Huddleston and Pullum (2002), I differentiate between ‘determination/determiner’, a function performed by elements in NP structure, and ‘determinatives’, which is the cover term used for a group of elements which can perform that function. As there are certain co-occurrence restrictions between determinatives in Present Day English, further subcategories have been postulated to account for the linear order: predeterminers, central determiners and postdeterminers. Members from the respective category are not supposed to co-occur (see Quirk et al. 1985: 257–264; see section 3.4.3)

Within a noun phrase, the head noun and the determiner express meanings which are needed to interpret the noun phrase successfully. While the head noun makes it clear what sort of entity is being referred to, the determiner specifies or quantifies the instance which is being talked about. In the literature it is pointed out that “[b]oth head and determiners are normally required, and neither can be omitted without destroying the identity of the noun phrase” (Biber et al. 1999: 240). Ghesquière describes the function of determiners as follows:

The determination zone accommodates all elements concerned with the identification and quantification of the NP referent. Its elements deictically and/or phorically anchor the instances of the type referred to by the NP in terms of such notions as givenness (*the*), relative quantity (*most*), etc. to the information the hearer has already built up from the previous discourse (Langacker 1991: 81–89; Davidse 2004). (Ghesquière 2014: 44)

In contrast to determiners, modifiers do not determine reference, but instead they ‘restrict’ the denotation of the noun phrase by adding ‘descriptive’ information to the head (Quirk et al. 1985: 65). For example, *an old man* has a more specific meaning than *a man*. Modification as a function is optional and mainly performed by the open word class adjective. In that sense there is a fundamental difference between determiners and modifiers. Modifiers are often lacking and

²⁰ See Huddleston and Pullum (2002: 356) for a detailed discussion of all those determinatives.

when they occur they can usually be omitted without injuring the structure and the basic meaning.²¹

Quirk et al.'s structural zone model has not been uncontested. It has been criticized and adapted for various reasons. For example, Ghesquière (see Table 4) groups the head noun and potential classifiers, which indicate a subtype of the type denoted by the head, in a so-called categorization zone. She also slightly rearranges the modification zone by distinguishing between degree modification and descriptive modification. The (pre)modification zone “accommodates (a) descriptive modifiers which attribute properties and qualities to the entity referred to by the head, and (b) degree modifiers which measure the degree of gradable properties referred to by the descriptive modifiers (adjective-intensifiers) and/or the head of the NP (noun-intensifiers)” (Ghesquière 2014: 25). However, as this book does not investigate modification, I will not contribute to the discussion how the modification zone is conceptualized best.

With regards to the determination zone, Ghesquière (2014: 24) distinguishes between primary and secondary determination (i.e. pre- and post-determiner position). Inspired by the work of Breban and Davidse (2003), she postulates that secondary determiners have a distinct function different from primary determiners, and form a “close-knit functional unit” (Ghesquière 2014: 48) with them. In terms of word class, primary determiners include the definite and the indefinite article, possessive and demonstrative determinatives and relative and absolute quantifiers (*many, much, few, little*). On the other hand, secondary determiners are a diversified group (*all, both, half, such, same, certain, former, last*) but like primary determiners still contribute to the determination of the NP referent.

In contrast, Van de Velde argues that “there is no need to posit a separate postdeterminer slot” (Van de Velde 2009: 318), which only unnecessarily complicates the picture. According to him, words like *same* or *other* simply “undergo [...] a diachronic transition from adjective slotfiller to determiner slotfiller” (Van de Velde 2009: 293) in Present Day English. They lose their adjectival properties to take up determiner properties in a gradual manner (for a discussion of gradualness and gradience see section 2.2.5).

²¹ Similar to the determiner/determinative distinction, I also differentiate between the function ‘modifier’ and the word classes that can fulfill the function. The most frequent prehead modifiers are attributive adjectives (*the latest gossip*), nouns (*brick walls*) or participles (*the looming crises*).

Tab. 4: Functional-cognitive NP zone-model (Ghesquière 2014: 24)

instantiation of a type of entity										
determination			modification				categorization		(multi-functional)	
			degree modification		descriptive modification					
sec- ondary	primary	secondary	noun- inten- sifier	adjective-intensifier		subjective	objective	classifier	head	
				bleached	non- bleached					
the		regular		boring			topic		that linguists like to discuss	
all	those		really		pretty	little	garden	flowers,	annual and perennial	
utter							madness			
your		other		rather		small	electric	trains	with pantographs	
such	a		very		nice		blackbird			
those		lovely			long		legs		of yours	

In general, which subzones to distinguish and how to determine membership are hotly debated topics (Quirk et al. 1985: 253–255; Payne and Huddleston 2002; Coene and D’hulst 2003a,b; Denison 2006). For example, Biber et al. (1999), next to the three subgroup positions, offer a fourth slot which they call ‘semi-determiners’. At the same time, Payne and Huddleston (2002) do not classify all determinatives in the same way as Quirk et al. (1985). For example, the handbooks do not agree on the status of *much*, *many*, *every* and *other*.

Some researchers do not think it feasible to employ a predeterminer category. For example, *all* and *such* have been categorized as predeterminers because positionally they are close to the articles and always precede adjectives. However, some scholars do not include those elements in the determinative class. For example, it is argued that in noun phrases like *all the books*, *all* is not a dependent prehead element but heads its own phrase. Thus, *all the books* is analyzed as an elliptical construction (i.e. *all (of) the books*) with *the books* being a complement (e.g. Spinillo 2000: 182).

Another question is whether quantifiers and numerals should be classified as determinatives (e.g. Langacker 1991: 78–81). I side with those who do not classify numerals and quantifiers as determiners. Quantifiers and numerals are definitely different from modifiers as these elements primarily quantify but their behavior is also very different from articles or demonstratives. For example, Langacker (1991: 78–81) argues that number is part of the type description of the NP, involving conceptualization of one (singular nouns) or a replication (plural nouns) of type specifications. As such, number is concerned with the internal semantic structure or construal of the entity as a distinct entity or as a (non-)replicate mass and thus with type specification rather than determination. A quantifier's role is to "indicate the size of the profiled instance" (Langacker 1991: 81). Quantifiers do not 'ground'. A numeral does not ground the nominal explicitly. The nominal is construed as an instance of a type because the information about the number of members of a set of entities manifests a type in the domain of instantiation (see next section for a discussion of 'grounding'). Note that also in other frameworks (e.g. Systemic Functional Grammar or Principles and Parameters) numerals and quantifiers get their own slot or project their own head.

I side with Langacker and suggest that instead of classifying numerals and quantifiers as secondary determiners in postdeterminer position, I suggest that such a terminology is misguided and that they deserve their own class and their own quantificational zone. This quantificational zone precedes the modifier zone and numerals and quantifiers go there. As such, the determination zone is envisaged to encompass only identifiers in the strict sense (articles, demonstratives and possessives) and elements in this zone cannot combine syntagmatically with any other element assigned to this position (this idea is also compatible with Langacker's cognitive modelling of the NP; see sections 3.1.3 and 3.4.5 for further discussion).

Finally, there are even linguists who propose that we should 'get rid of' the determiner category all together because not enough elements would behave in a way that justifies to group them under such a separate category (e.g. Spinillo 2000: 188).²² In contrast, I believe that to postulate such a category is legitimate as semantic and distributional criteria for the identification of the category exist and because there are enough linguistic elements that meet these criteria (Giusti 1997: 103; Diessel 1999b: 118; Payne and Huddleston 2002: 354–358, 452, 538; Van de Velde 2010: 268–269). What is debatable, of course, is whether all elements that are listed as determinatives really deserve to be members of that group. For

²² See Spinillo's unified analysis proposal (2000) where she argues that determiners are pronouns.

my line of argumentation, however, it is not necessary to get involved in the discussion whether forms like *all*, *such*, *many* or *same* deserve determiner status. This book focuses on the definite and the indefinite article, which are no borderline cases but the most prototypical members of what has traditionally been termed the central determiner category. Moreover, I adhere to a prototype approach to categories, which allows for gradience and gradualness. A linguistic element does not need to meet all criteria to be classified in a particular category. Moreover, a linguistic item may change its category status gradually over time, taking up new characteristic features one after the other, which can make it difficult to clearly assign it to a particular category (see section 4.2.5).

From the information presented so far, we can conclude that (a) articles are determinatives which function as determiners, (b) determinatives are prehead dependents which determine reference and help to anchor the nominal in discourse, (c) determination precedes quantification and modification in English and (d) common singular count nouns are the most frequent noun class. The crucial point is that although in other languages determining elements can occur in various positions, in English a positional syntactic zone in the prehead is reserved for determinatives. English determinatives are slotfillers which have to be inserted into that slot and nowhere else. This determination zone is situated left of the quantifier zone and the modification zone. This fact will turn out to be essential later because I will argue that in order for the category article to develop, this determination zone had to emerge first (see chapter 7).

For my line of argumentation, it is of secondary importance if and how the zone is split up into subslots. Rather, it is essential to understand that determination is a function which can be fulfilled by linguistic items either by virtue of their meaning or by virtue of the position they assume in a structure. In other words, a function is different from the form (word class) of the morpheme that fulfills it and also from a potential local zone. There are forms which can fulfill the determination function, e.g. possessives or demonstratives, because they are conventionally associated with meaning that includes or implies determination; e.g. *my* has the semantic meaning [possessed by the speaker] which automatically implies determination. Any lexeme that can express the determination of a referent, no matter where it is to be found in the sentence, will be considered a member of the set of determinatives. At the same time, determinatives are different from the syntactic determination slot which represents a formal unit, which can also be employed to express determination. If a 'local' slot exists in the syntax, the way this slot is filled can signal (in)definiteness as well. Filling the slot or leaving it empty can be (or become) meaningful in itself. I will come back to this idea in chapter 6 and 7.

2.1.3 Halliday’s ‘experiential structure’ and Langacker’s notion of ‘grounding’ and ‘type specification’

At this point it also seems necessary to point out that other scholars conceptualize the noun phrase in a slightly different way. For example, Systemic Functional Grammar (the Sydney School, e.g. Halliday 1985; Halliday and Matthiessen 2014), proposes the following experiential²³ structure for every noun phrase:

Tab. 5: Halliday’s experiential NP structure (1985: 159)

Deictic1	Deictic2	Numerative	Epithet1	Epithet2	Classifier	Thing	Qualifier
determiner	adjective	numeral	adjective	noun or adjective	noun or adjective	noun	phrase or clause
<i>those</i>	<i>same</i>	<i>two</i>	<i>splendid</i>	<i>old</i>	<i>electric</i>	<i>trains</i>	<i>with pantographs</i>

The experiential structure specifies the class of entities which are grouped in the noun phrase. The phrase is headed by a ‘Thing’, which forms the “semantic core of the nominal group” (Halliday and Matthiessen 2014: 383). According to Ghesquière, the term Thing is rather misleading as the main “function of the head of the NP is to denote the class or type of entity talked about, not a distinct entity” (Ghesquière 2014: 16). The additional elements, no matter whether they precede or follow the head, function to narrow down the head: Deictics, Numeratives, Epithets and Classifiers preceding the Thing; postmodifiers and complements are called Qualifiers and follow the Thing. Importantly, the ordering proceeds from the left with the elements that have the greatest specifying potential to the right with the elements which have the least (Halliday and Matthiessen 2014: 379–383).

Deictic elements express a specific subset of the Thing and characterize it either demonstratively with regards to proximity (*this, that,...*) or by possession (*my, your, his,...*) (Halliday 1985: 160). The postdeictic elements “identify a subset of the class of ‘Thing’ “by referring to its fame or familiarity, its status in the text, or its similarity/dissimilarity to some other designated subset” (Halliday 1985: 162).

²³ Halliday also proposes a so-called logical structure of the noun phrase; for further information see Halliday and Matthiessen (2014: 379–383).

In contrast, the category Numerative, which includes ordinal and cardinal numbers and relative and absolute quantifiers, “indicates some numerical feature of the subset” (Halliday 1985: 183). Epithets express “some quality of the subset, e.g. *old, long, blue, fast*. This may be an objective property of the Thing itself; or it may be an expression of the speaker’s subjective attitude e.g. *splendid, silly, fantastic*” (Halliday 1985: 163). Finally, the Classifier “indicates a particular subclass of the thing in question, e.g. *electric trains, passenger trains, wooden trains, toy trains*” (Halliday 1985: 164).

According to Ghesquière, one important aspect of Halliday’s proposal is that

[t]he left-right order in which prenominal modifiers and head noun appear in the NP is usually assumed to reflect a more general continuum of subjective [interpersonal] to objective meanings (e.g. Quirk et al. 1972; Dixon 1982). The idea is that the more leftward elements in NP structure are more subjective and the more one moves to the right of the NP the less subjective the elements become (Ghesquière 2014: 5).

Generally, in Systemic Functional Grammar, the linguistic system is said to consist of three main functional-semantic components: the ideational, the interpersonal and the textual (see also Halliday and Hasan 1976: 26–27). The ideational component is concerned with representational semantics expressing ‘content’. What is meant here are the speaker’s linguistic resources to describe any extralinguistic entity. The interpersonal component includes devices which help to express speaker-hearer relations, and expressions which reflect the speaker’s personal evaluation of what is being said. Third, the textual component covers all discourse-related meaning (given–new, theme–rheme, topic–focus, etc.) including cohesive elements (Ghesquière 2014: 15–16). Within the noun phrase, Deictic1/2 and Epithet 1 in the left hemisphere are seen as textual and interpersonal devices. The ideational component is mostly expressed in the right hemisphere by Epithet 2, Classifier and Thing (Halliday 1985: 190). The reason that Halliday’s model is briefly mentioned here is that (a) also Halliday is aware that numerals and quantifiers are not deictic and (b) one functional explanation for the rise of the article system is that the development of articles helps the speaker to subjectify language in the sense that articles are interpersonal and textual devices at the same time (see Traugott’s analysis in section 3.2.2.2 for further details).

Langacker (1991, 2008) offers a cognitively inspired characterization of the noun phrase. In contrast to generative models, which define the NP/DP by its structural form, cognitive grammar highlights its semantic functions of ‘grounding’, ‘instantiation’, ‘quantification’ and ‘type specification’. As has already been mentioned, for Langacker a noun phrase which he calls nominal “profiles a thing

construed as an instance of some type and further incorporates some specification of quantity and grounding” (Langacker 1991: 54). In canonical noun phrases with common noun heads the functions of grounding, quantification, instantiation, type specification are iconically reflected in the structure of the nominal being realized from left to right with grounding forming the outermost layer and type specification the innermost layer (Keizer forth; Langacker 1991: 54, 143, 157; Rijkhoff 2002: 218–224).

Type specification is “an initial delimitation among the potential objects of thought, confining attention to a set of things regarded as equivalent in certain respects” (Langacker 1991: 53). The core of a (prototypical) nominal is the noun, which specifies the type of thing designated without singling out any particular instance of that type. For example, the noun *cat* occurring by itself cannot alone single out a specific instance of a certain (sub)type. It can only be associated with a specific instance when it is used in a full noun phrase like *a cat* or *the two cats*. Modifiers which accompany the head noun also have a type-specifying function, rendering the type more precise. Each modifier adds “certain refinements and thus deriving a higher-order type specification of greater precision”, e.g. *cat*, *black cat*, *fat black cat* (Langacker 1991: 53–54, 58–59; Ghesquière 2014: 22–23).

By means of quantification the speaker identifies the size or number of the involved instances. For example, in a noun phrase like *three black cats*, *three* expresses quantification. In the end, “[g]rounding constitutes the final, criterial step in th[e] assembly” of noun phrases (Langacker 2002b: 7). A nominal needs to be anchored in the speaker-hearer situation and a speaker needs a way to draw attention to a particular instance of a thing. This process has been termed ‘grounding’ (Langacker 1991: 51–53). Each speech event involves a so-called ground which consists of the time of speaking, the participants in the speech event, and the shared knowledge between the speakers. Grounding is the process by which linguistic expressions are conceptually connected to the ground. In the case of noun phrases, determiners (articles, demonstratives,...) ground nominals by profiling a specific instance of the category. So one needs to distinguish “between type specification and the other three functions, which all work together to allow the hearer to make mental contact with the instance(s) of a general type of entity intended by the speaker” (Ghesquière 2014: 22–23).

To conclude, it can be said that prototypical noun phrases are headed by count nouns which profile things construed as being discretely bounded and which are accompanied by elements which ground the nominal. Inspired by Langacker’s work, who highlights the difference between grounding and quantification, I partially reject the current, presented zone models and suggest the following zones in the canonical noun phrase:

Tab. 6: Alternative zone model of the English NP

prehead			head		post head
determinatives	quantifiers, numerals	evaluative adjectives ...	descriptive adjectives	classifier	thing
determination zone	quantification zone	modification zone		categorization zone	

As can be seen quantifiers and numerals are located in their own zone, and are not classified as determinatives. I am well aware that the proposed reorganization of the English prehead is a bold move, not very detailed and definitely open for debate. However, I will not spend more time on the issue here, because – as will be shown in chapter 7 – from a Construction Grammar point of view a zone model (empty grid with all zones included) is not appealing in the first place (see alternative NP network design in chapter 7).

2.1.4 Referentiality and specificity

Before we can move on to discuss what the function of a definiteness marker is, it is necessary to briefly discuss the notion of referentiality and specificity. Determination is linked to the pragmatic concept of ‘reference’. Every noun has a certain denotation, a meaning inherent in its lexical entry. However, noun phrases, when used in discourse, have the additional property of being ‘referential’, which means that they refer to entities in the linguistic or situational context. They either refer to an independently distinguishable entity (set of entities) in the outside world (real or fictional) or to an earlier or later part of the discourse. As already mentioned in the previous section, a noun by itself is not referential but rather denotes a set of entities of a certain kind. For example, in *The boy cleaned his bike*, *bike* by itself is non-referential and denotes a set of entities of a certain kind (two-wheeled vehicle). Only with the addition of a determinative (in this case *his*), can the noun start to realize a referential function. In other words, very often the determinative has the function of adding discourse-pragmatic reference to the noun phrase (Payne and Huddleston 2002: 399–401).

The determinative ‘determines’ what kind of reference the noun phrase has (Quirk et al. 1985: 64). Reference can be definite (*the*) or indefinite (*a/an*). In Modern English, the overt indication of referentiality is obligatory with singular count nouns in definite and indefinite contexts. In other words, almost all singular

count nouns require a determinative when they are used referentially (Quirk et al. 1985: 64; Payne and Huddleston 2002: 330). For example, in a sentence like *The boy cleaned his bike*, the noun phrase *the boy* is referential, singling out a particular identifiable boy assumed by the speaker to be identifiable for the hearer. Reference here is given to the noun by the addition of the definite article and is heavily context-dependent. Which particular boy is being singled out depends on the context (Payne and Huddleston 2002: 399). The pronoun *his* is also referential through its anaphoric relation to its antecedent *the boy*.

Semantically most noun phrases are determined even if no element marks the noun phrase overtly. Some heads determine their own reference type. As has already been mentioned, proper nouns and personal pronouns are said to be logically equivalent to definite descriptions and therefore can be regarded as incorporating their own determinative element. Therefore, in English, a noun phrase with a proper noun as the head normally does not contain a separate determinative.²⁴ Personal names, temporal names, some geographical names and other locative names take no article in English (e.g. **The John is a nice guy*). In all those cases I will speak of ‘bare definite NPs’.

Prototypically reference is specific and non-generic (*The lion is sleeping in the cage*). Both speaker and hearer know which specific lion is being talked about. However, in some cases reference can be generic (*Lions are dangerous*; reference to a whole class) or non-specific (*I would not like to be attacked by a lion*). In the case of non-specific reference, the speaker does not talk about a specific lion, but rather does not want to be attacked by any lion. Note that generic reference is a tricky concept and has a variety of interpretations. Unfortunately, a discussion of those would go far beyond the scope of the discussion here (Chesterman 1993: 14).

Although noun phrases are generally used to refer, this is not always the case. As a matter of fact, most noun phrases can be used referentially or non-referentially;²⁵ compare, for example, *Mary lives next door* vs. *We called her Mary*. In the second sentence we are not talking about a specific Mary in the real world. So-called ‘bare role NPs’ which are restricted to the function of predicative complements (e.g. *I was elected president*) are always non-referential. Importantly, non-referential noun phrases are less frequent than referential noun phrases (Payne and Huddleston 2002: 402–404).

²⁴ This is not necessarily the case in all languages. In other languages like Greek, determinatives are used with proper nouns as well. Also in English exceptions exist where a proper noun takes the definite article, e.g. *The Netherlands*; *the John I know* (Quirk et al. 1985: 5.70–7.72).

²⁵ See Huddleston and Pullum (2002: 400) on how to test for a referential reading.

2.2 Article usage in Modern English

The following section discusses article use in Present Day English. After discussing the semantics of (in)definiteness (section 2.2.1), Hawkins' and Himmelmann's proposed list of article uses will be investigated (section 2.2.2 and 2.2.3). I will move on to discuss article distribution among the noun classes (section 2.2.4). The concept of a zero article will be introduced but ultimately rejected. At this point, the status of non-proportional/non-partitive/existential *some* and *any* as indefinite articles in English will also be discussed. Finally, frequency distribution in different genres will be investigated (section 2.2.5).

2.2.1 The semantics of (in)definiteness

As pointed out above, the basic function of some determinatives is to specify the definiteness or indefiniteness of a noun phrase's reference. In English, the definite article marks the NP's reference as definite. *The* constitutes "the prototypical core of definiteness expression in English" (Chesterman 1991: 4). Apart from the definite article, demonstratives, possessive pronouns and genitive phrases are said to express definiteness (Abbott 2004: 122). At the same time, those determinatives have additional meanings (e.g. the pronoun *my* expresses possession whereas the demonstrative *those* expresses spatial deixis).²⁶ The indefinite article *a/an* marks the NP indefinite. In models which categorize the following elements as determiners *any*, *some*, *no*, *several*, *a few*, *many* they are also considered to mark the NP as indefinite (see Abbott's list 2004: 124).

At this point the question remains: what exactly is (in)definiteness? Let me point out in advance that this question is very difficult to answer because (in)definiteness is not a primary notion but a compositional concept which includes many characteristic features (Chesterman 1991: 8). Moreover, one needs to make a distinction between 'semantic-pragmatic definiteness' and 'grammatical definiteness' (i.e. the overt encoding of 'semantic-pragmatic definiteness'). It is essential to realize that the semantic-pragmatic concept exists in languages even if the corresponding grammatical category is lacking. The grammatical category of definiteness must be understood as being similar to other functional categories

²⁶ Birner and Ward (1998) argue that universal quantifiers also add definite meaning (*all*, *every*, *each*). On the other hand, Haspelmath (199b) argues that possessives are not inherently definite. As mentioned before, proper names and personal pronouns are said to be inherently definite.

like Tense, Mood, Number or Gender etc. But, like these, grammatical definiteness is the representation in grammar of a semantic-pragmatic notion (Lyons 1999: 278). A category like Tense is expressed linguistically. However, the semantic notion it encodes ('time' or 'temporal deixis') may be present even if a language has no grammatical category for it (Tense). Still, time may be expressed lexically, by means of adverbials, e.g. *yesterday*. For example in Hausa, the definite article suffix *-n/-r* is only an optional marker. Thus it is possible that in a sentence a common noun which is semantically definite by having anaphoric reference (because it was mentioned before) still occurs in bare form (Lyons 1999: 52). This shows that although the NP's reference in the outside world is definite, it is not obligatory to overtly mark this in the grammar of that particular language.

Despite the fact that (in)definiteness has been investigated extensively by various linguists (Christophersen 1939; Krámský 1972; Givón 1978; Greenberg 1978; Hawkins 1978, 1991, 2004; Lyons 1980, 1995, 1999; Heim 1982; Chesterman 1991, 1993)²⁷, there is still no general agreement among linguists what (in)definiteness is. Generally, it is a functional category pertaining to noun phrases. For example, it has been stated that "[a] definite NP has a referent which is assumed by the speaker to be unambiguously identifiable by the hearer (in brief, a known or identifiable referent)" (Chesterman 1991: 10). Quirk et al. point out that a definite NP refers "to something which can be identified uniquely in the general knowledge shared by the speaker and hearer" (Quirk et al. 1985: 266). In contrast to this, "an indefinite NP has a referent which is assumed by the speaker not to be unambiguously identifiable by the hearer (i.e. a new, or unknown referent)" (Chesterman 1991: 10).

An essential component of these definitions seems to be the notion of identifiability. Next to identifiability other components of definite meaning have been listed in order to account for the occurrence of (in)definiteness marking. Six major components of (in)definite meaning have been discussed extensively: referentiality, familiarity/non-familiarity, identifiability/non-identifiability, uniqueness/non-uniqueness, inclusiveness/non-inclusiveness and specificity/non-specificity. Note that all these components, which I would like to discuss briefly, overlap and are not separate aspects.

It has already been discussed in the previous section (2.1.4) that definiteness is linked to referentiality. Let us consider the following examples:

²⁷ For the relationship between definiteness and aspectuality see Leiss (2000), Wood (2007), Bauer (2007); for the logical semantic analysis of definite noun phrases see Grice (1975), Kempson (1975); for the relationship between quantification and definiteness see Barwise and Cooper (1981), McCawley (1981), Cann (1993); for relevance theory see Sperber and Wilson (1995).

(16) *I 'm working in **the shed**.*

(17) *Let's have the reception in **our house**.*

The article in the noun phrase specifies reference. **I'm working in shed* would be ill formed as the specific reference in the outside world needs overt marking with the singular count noun in this context. Moreover, the referent in both sentences is 'known' to the hearer and the speaker. This leads to the so-called 'familiarity' hypothesis first presented by Christophersen (1939) and extensively modified by Hawkins (1978) and Heim (1982):

For the proper use of the [*the*] form it is necessary that it should call up in the hearer's mind the image of the exact individual the speaker is thinking of. [...] A condition for the use of *the* is that there is a basis of understanding between speaker and hearer. (Christophersen 1939: 28)

In example (16) and (17), speaker and hearer are familiar with the referent and this familiarity enables the speaker and hearer to identify the particular referent (*shed, house*). In contrast, the referent is unfamiliar in an indefinite noun phrase.

(18) ***A customer** complained.*

In example (18) the indefinite article *a* indicates that the speaker is thinking of a member of such a class. He may know more about the individual but the noun phrase itself does not show this (Christophersen 1939: 32). Whereas indefinite noun phrases introduce a new variable, definite noun phrases are required to be interpreted with a variable which has already been introduced. "This explicates the idea that definite NPs presuppose existence of a referent, together with the idea that presuppositions are best seen as background information or as the common ground assumed in a discourse" (Abbott 2004: 134). However, in other English sentences such as

(19) ***The president of Ghana** is visiting tomorrow.²⁸*

(20) *They've just got in from New York. **The plane** was five hours late.*

(21) *I've just been to a wedding. **The bride** wore blue.*

²⁸ Examples 19–21 are taken from Lyons (1999: 3–8)

familiarity is problematic because although the hearer will probably accept that there is a president of Ghana, it does not mean that s/he knows this person. It is also unlikely that s/he knows the particular plane which flew in from New York. Still the article is used here. In example (21), the addressee knows that weddings involve brides and makes the natural reference to the bride at the particular wedding, but it is not true that the hearer really knows the bride. The hearer associates a definite noun phrase (*the bride*) with some uniquely defined entity [bride] which s/he expects to find in or associates with the situation [wedding] (Lyons 1999: 7).

That is why many linguists, although sympathetic to the familiarity thesis, prefer to see definiteness as being about ‘identifiability’ (Hawkins 1978; Heim 1982). Identifiability refers to the idea that the use of the definite article “directs the hearer to the referent of the NP by signaling that he is in a position to identify it” (Lyons 1999: 6). The notion of identifiability does not replace familiarity, but it can help where familiarity fails, as in the cases just mentioned. In the indefinite sentence *A customer complained* the hearer is assumed to be unable to identify the referent. In that sense, indefiniteness marking signals non-identifiability. The propositional content of this sentence is that there exists something which is both a customer and complained. In this case, *a* is rather existential and does not single out a unique entity.

However, cataphoric uses of the definite article in general are problematic for familiarity and identifiability (Hawkins 1978: 106–149; Lyons 1999: 7). In example (22) and (23) the definite article is sanctioned by the relative clause afterwards.

(22) *Mary’s gone for a spin in **the car she just bought**.*

(23) *Would you mind bringing back **the big bag of potato chips that I left on the bed**.*

In such examples, the uniquely identifying information only follows the definite article. In such examples, the referent was not necessarily introduced in previous discourse and as such may be assumed to be unfamiliar to the hearer (Birner and Ward 1998). The hearer finds out that Mary just bought a car but that does not help him/her to identify it.

To account for the use of the definite article in those cases, linguists work with Russell’s notion of ‘uniqueness’ (1903, 1905). Lyons elaborates that “the definite article signals that there is just one entity satisfying the description used” (Lyons 1999: 8) and Abbot stresses that “the definite article expresses the idea that whatever descriptive content is contained in the NP applies uniquely, that is

to at most one entity in the domain of discourse” (Abbot 2004: 125). Thus in example (22) there is just one particular car that Mary has just bought; in example (23) there is just one bag of chips that the speaker left on the bed. This uniqueness is generally not absolute, but is to be understood relative to a particular context (Lyons 1999: 8). Uniqueness fits well for singular count nouns (Russell 1905). However, also uniqueness is a problematic notion as there are cases like examples (24) and (25)

(24) *After weeks in the desert, the caravan finally came to **the bank of a river**.*

(25) *I hurt **my eye**.*

in which the singular definite description refers “to entities which are typically or always NOT the only entity to which the descriptive content of the NP applies, even in a restricted domain of evaluation” (Abbott 2004: 131 [original emphasis]). Rivers always have two banks and people usually have two eyes. At the same time, the definite article often also occurs with plural or mass nouns which do not refer to a single, unique referent. This leads to the employment of the last characteristic component. With plural and mass nouns, definiteness involves not so much ‘uniqueness’ but the notion of ‘inclusiveness’ (Hawkins 1978). Inclusiveness expresses that “the reference is to the totality of the objects or mass in the context which satisfy the description” (Lyons 1999: 11).

(26) *We are looking for **the answers**.*

(27) *I can’t find **the shampoo** I put here this morning.*

Here, the reference is to all the answers which exist and to all of the shampoo the speaker left. Thus, with plural and mass nouns *the* is rather a universal quantifier similar to *all*. Also note that uniqueness is linked to the notion of inclusiveness. Inclusiveness is the same as uniqueness when the noun phrase is singular because the totality of objects which satisfy the description is only one (Lyons 1999: 12). At the same time, uniqueness often is equated with ‘specificity’, which can be defined as the “uniqueness of the entity” (Frawley 1991: 70).

To summarize, it can be said that not every possible semantic aspect is included in all cases of article usage. Also note that “[u]niqueness of applicability of the descriptive content, as explicated in Russell’s analysis, is a strictly semantic property while the assumption of familiarity to the addressee is discourse-

pragmatic in nature” (Abbott 2004: 135–136). Moreover, in the course of its diachronic development, the English articles, in later developmental stages, also get employed in situations other than marking the referent as definite/indefinite (van Gelderen 2007: 276; see section 3.3). However, marking (un)familiarity, (un)identifiability, and (non)uniqueness is the articles’ central, prototypical job.

2.2.2 The definite article

All the semantic components of definiteness which have been discussed above can be found in Hawkins’ (1978) list of article usage in Modern English. Hawkins (1978: 106–149) and Himmelmann (1997: 36) distinguish the following uses of *the*:²⁹

(i) *Immediate situation use*: the intended referent is part of the situation. He can be visible for speaker and hearer, like in example (28) or invisible as in example (29).

(28) Pass me **the bucket**, please!

(29) Beware of **the dog**!

(ii) *Anaphoric use*: the intended referent was mentioned before, as in example (30).

(30) Fred bought me a bucket, but **the bucket** had a hole in it.

(iii) *Abstract-situative use*: the referent is part of the world knowledge of the speaker, e.g. *the sun*, *the Queen*, *the Prime Minister*, or *the pub* in a sense of ‘the pub one finds in every local community’.

(iv) *Associative-anaphoric use*: the textual appeal to general knowledge gives rise to ‘associative anaphora’. After mentioning *a house* one can continue with *the roof*, *the windows*, *the size*. The first NP is a ‘trigger’ for the following so-called ‘associates’. In example (31) *driving a car* triggers *the exhaust fumes*. The essential feature which needs to be fulfilled is a part-of condition.

²⁹ Hawkins himself reflects on the work of Christophersen (1939). Compare Quirk et al. (1985: 5.27–5.35) for their list of definite article usage.

- (31) *The man drove past our house in a car. **The exhaust fumes** were terrible.*

Hawkins argues that in its most prototypical uses the referent of a definite noun phrase is part of a ‘shared set’. Physical and mental objects occur in sets of different kinds, and if both speaker and hearer share the knowledge that a given referent is located in a given set, this set is a shared set. Examples of such shared sets relate to the usage types of *the*. *The* is used when the speaker or hearer knows the entities from previous discourse, the intermediate or larger situation or an association set or general world knowledge (Hawkins 1978: 167). When using the definite article the speaker places a

‘pragmatic blanket’ over some of the infinite number of possible or potential referents of a referring predicate, i.e. to exclude as irrelevant the possible objects that [a nominal] could refer to, and to focus the hearer’s attention on a very finite number. The objects falling under this pragmatic blanket are the objects existing in the shared-speaker-hearer sets [...] and the hearer is thus being told that he actually possesses the means to discover which object is being talked about (Hawkins 1978: 173).

“The idea is that use of the definite conveys to the addressee that they ought to be able to determine a unique referent from the description used plus contextual or background information, whether or not they had prior acquaintance with it” (Abbott 2004: 136). Related to this idea, Birner and Ward clarify that the addressee is not necessarily able to identify the referent in the world but rather “the speaker must believe that the hearer is able to *individuate* the referent in question from all others within the discourse model” (Birner and Ward 1998: 122 [original emphasis]). Similarly, Heine and Kuteva define the definite article as “a morphological device (free morpheme, clitic, or affix) which has as its primary function the marking of the identifiability of a referent of a noun phrase for both speaker and hearer. Identifiability in this sense is a pragmatic category (and not a category of objective truth) based on the ‘mental object’ that emerges in the universe of discourse” (Heine and Kuteva 2006: 98).

Hawkins also lists so-called ‘unfamiliar uses’, where the concept of a shared set does not apply. When using the definite article in those instances, the speaker leaves the notion of semantic definiteness behind:

(v) *Unfamiliar uses*: complex nominal phrases that cannot be subsumed under the first four points. They are not situational uses of *the*; they are not associates of some trigger in previous discourse, and the speaker and hearer do not share any knowledge of the referent on the basis of previous mention either. In that sense they are cataphoric. Hawkins distinguishes four subtypes:

(a) relative clause:

- (32) *Bill's fed up with **the book which I have just given him for his birthday**.*

(b) NP-complements:

- (33) *Bill is amazed by **the fact that there is so much life on earth**.*

(c) genitive attributes:, e.g. *the beginning of the war, the weight of the car;*

(d) nominal attributes: *the name Algeron, the color red, the number seven.*³⁰

Another possible way of using the article is with generics (vi) (Chesterman 1991:52–53).³¹

- (34) ***The horse** is a useful animal.*

In example (34) *the* refers to the species, type or class and not a single referent. In a sentence like *The African Elephant will soon be extinct*, the article denotes the entire class rather than an individual member. Also a number of fixed expressions (ex.35 and ex.36) require the article rather arbitrarily, because the expression does not refer to a special entity (Payne and Huddleston 2002: 407–408).³²

- (35) *His hobby is playing **the violin**.*

- (36) *We dance **the rumba**.*

Here the article functions as a sheer marker of nounhood. As will be shown in chapter 4, extending article use to such cases, is the last developmental step in the grammaticalization path of articles.

30 Additionally, Hawkins discusses article usage with superlatives, ordinals, and some adjectives (*same, identical, next, other, only*), which must also be considered part of the unfamiliar uses but which he himself does not categorize as such.

31 Chesterman is aware of the fact that “[g]enerics is thus not a clear-cut unitary phenomenon, but rather seems to be more of a cover term for a variety of ‘non-particular’ kinds of readings” (Chesterman 1991: 52–53).

32 These fixed expressions denote musical instruments, academic subjects, illnesses, transportation, seasons (Payne and Huddleston 2002: 408).

2.2.3 The indefinite article

According to Biber et al. the indefinite article “narrows down the reference of the following noun to a single member of a class and is often used to introduce a new **specific** entity into discourse” (Biber et al. 1999: 260, [original emphasis]). Quirk et al. mention that the indefinite article “will be used where the reference of X is not uniquely identifiable in the shared knowledge of speaker and hearer. Hence *a/an* is typically used when the referent has not been mentioned before, and is assumed to be unfamiliar to the speaker and hearer” (Quirk et al. 1985: 272). The indefinite article codes the information that the referent is not necessarily known to all interlocutors. The addressee’s ability to unambiguously identify the referent is not expected. Thus, the indefinite article can express non-familiarity, non-uniqueness and non-identifiability. In example (37) the indefinite article indicates that the referent was not mentioned before.

- (37) ***A man** came into the office yesterday. When no one was looking, the man stole **a laptop** and several documents.*

In example (38) the speaker is looking for any (non-specific) napkin within the set of napkins that exist in the kitchen. Although the indefinite article indicates that the referent is part of a shared set, it does not implicate that the addressee or speaker know exactly which member is singled out.

- (38) *Can you bring me **a napkin from the kitchen**.*

The indefinite article cannot be used if the object in question is unique within the relevant shared set of objects. Example (39) is ill formed because there is only one Mona Lisa. From that point of view, the indefinite article signals non-uniqueness.

- (39) ****A Mona Lisa** was stolen.*

When the object is not unique, the indefinite article can be used (e.g. there is more than one painting by van Gogh).

- (40) ***A painting by van Gogh** was stolen.*

Also the indefinite article does not signal co-reference with a preceding indefinite noun phrase. For instance, in example (41) there is no formal indication that the two indefinite noun phrases refer to the same watch.

- (41) *Bob lost **a gold watch** yesterday, and Bill was wearing **a gold watch** this morning.*

If one changes the second *a gold watch* to *the gold watch*, the definiteness of the second noun phrase indicates co-referentiality. Also in example (42)

- (42) *My dad bought a computer last week and he sold **a screen** off to his friend.*

it is not clear whether the screen was part of the computer set that was bought. The message is simply that an entity describes as a screen was sold. Because of examples like this, Hawkins concludes:

In general it is the context which seems to determine how an indefinite reference is understood. There are three possibilities. The context may force an indefinite referent to be assigned to some speaker-hearer shared set; it may force the indefinite referent *not* to be assigned to some potentially available set; or it may leave the indefinite reference vague in this respect. (Hawkins 1978: 175 [original emphasis])

As the indefinite article historically derives from the numeral *one*, it can often be used in a quasi-numerical sense (ex.43).

- (43) a) *We walked for forty miles in **a (single) day**.*
 b) *The Wrights have two daughters and **a son**.*
 c) ***a hundred, a dozen**,...*

In all these cases, *a* can easily be replaced by the numeral *one* (Quirk et al. 1985: 273–274).

Moreover, the indefinite article can also be used in non-referential contexts where the noun phrase does not refer to an individual. Such non-referential indefinite noun phrases are often found in copula constructions where they have a descriptive (predicative) role (similar to that of adjectives):

- (44) a) *He is **a reliable team member**!*
 b) *What **a fool**!*

Finally, the indefinite article is also used in generic expressions (ex.45).

- (45) ***A bull terrier** makes an excellent watchdog.*

The generic use picks out any representative member of the class.

2.2.4 Occurrence restrictions with nouns

At this point, it is also useful to briefly comment on some of the articles' occurrence restrictions with the various noun classes. In Modern English, overt definiteness marking is obligatory with singular count nouns, plural count nouns and non-count nouns (ex.46a-b). Indefiniteness, on the other hand, is marked by the indefinite article *a/an* (ex.46c). Marking indefinite contexts overtly is not obligatory in plural and non-count cases. In these cases, the determination slot can remain unfilled (ex.46 d,e).

- (46) a) *I need to read **the book**.*
 b) *I need to read **the books**.*
 c) *I need to read **a book**.*
 d) *I need to buy **books**.*
 e) *I need to buy **ink**.*

The distribution of the articles is determined by a combination of three binary oppositions: identifiable referent vs. non-identifiable referent, count vs. non-count and singular vs. plural. There are also phonetic co-occurrence restrictions: both articles take a different spoken form when the following word begins with a vowel: *a banana* /ə/ vs. *an orange* /ən/; *the pear* /ðə/ vs. *the apple* /ði/ (Biber et al. 1999: 260).

For count and non-count nouns the distribution of articles has been listed as the following:

Tab. 7: Use of the definite and indefinite article (adapted from Quirk et al. 1985: 265)

	DEFINITE		INDEFINITE	
	Count	Non-count	Count	Non-count
SINGULAR	the book	the ink	a book	– / (some/any) ink
PLURAL	the books		–/(some/any) books	

As mentioned above, singular count nouns generally require the presence of an article. There are however, exceptions. There is a group of bare singular count nouns in fixed expressions where we expect a determinative as they denote a real location, like *in hospital* or *at sea*, *leave town*, *start university*. Therefore, the table above has been severely criticized (Chesterman 1991, 1993). To defend the proposed distribution, it could be argued that cases like *Ed is in hospital* should be

given non-referential interpretations. “In these cases the noun acts as an indication of the associated activity, and does not have its standard denotation” (Payne and Huddleston 2002: 407–409). The nouns which permit this use are a restricted group: common activities of everyday life, e.g. *Ed is in school* (= being taught); meals e.g. *We had lunch*, *We talked about it at dinner*; times of the day following the preposition *at*, *by*, *before*, *until*, *after* e.g. *after dawn* (Payne and Huddleston 2002: 407–409).³³ Still such patterns are interesting especially as in other languages some of those phrases take an article: e.g. German *Ich gehe in die Schule* ‘I go to the school’. From a constructional point of view, all these cases are special constructions in their own right. Their lacking an article is an independent feature (for whatever reasons), which may block any inheritance of definiteness marking which is obligatory in higher nodes.

As can be seen in Table 7, *some* and *any* have been added as an article option for indefinite plural and non-count nouns. This relates to the question of how many articles English has. There is disagreement about how many articles there are in English. “Some studies assume two articles, *the* and *a*; others include zero; others include unstressed *some*; and still others distinguish between zero and null forms” (Chesterman 1991: 40).

Let us start with the special case of *some* and *any* which are usually classified as quantifiers. Sahin distinguished between *some* as a quantifier and *some* as an “indefinite assertive article” (Sahin 1979: 14; also see Israel 1999; Jacobsson 2002). As can be seen in the following examples, *some* can be used in two ways: proportionally and non-proportionally. In example (47) and (48) we see the proportional (partitive usage):

(47) ***Some people*** left early.

(48) ***Some cheese*** is made from goat’s milk. (Payne and Huddleston 2002: 380)

In both examples, if *some* is stressed, we are concerned with a subset of people belonging to an implied larger set, which is why in both cases one could easily substitute *some* by *not all*. In contrast, examples (49) and (50) are clearly different from the proportional usage of *some*:

(49) There are ***some books*** for you on the table.

³³ Note however, that *morning*, *daytime*, *evening* and *dark* take *in+the* instead of *at*. In contrast to this, in a number of expressions involving repetition (e.g. *day by day*, or *arm in arm*) or in certain fixed phrases (e.g. *mother or child*) we find no article.

- (50) a) *We need **some** ink.*
 b) *I don't need to buy **any** ink.*

In example (50) *any* is the non-factual counterpart of *some*. These examples, where *some* is normally unstressed, lack the proportional aspect; there is no 'not all' implicature. In what follows it will be assumed that in this usage *some* and *any* function as an indefinite article which selects plural and non-count heads. Such an analysis has been criticized, one of the reasons being that *some* and *any* are distributionally much more restricted than *the/an*. For example, *some* and *any* cannot be used in ascriptive predicative complements (ex.51–ex.53).

- (51) a) *As doctors, they should know better.*
 b) **As some doctors, they should know better.*
- (52) a) *This liquid is acid.*
 b) **This liquid is some acid.*
- (53) a) *Jill wasn't a student.*
 b) **Jill wasn't any student.* (Payne and Huddleston (2002: 383))

Finally, *some* and *any* cannot be used in generic constructions without changing the meaning:

- (54) a) *Lions are ferocious beasts.*
 b) *Some lions are ferocious beasts.*
 c) *Any lion is a ferocious beast.*

The fact that *some* and *any* cannot be used in the examples above is not a good argument against their potential article status. All these cases are non-referential or generic cases. In this book, I will argue that unstressed, non-partitive *some* and *any* function as an indefinite article for plural and non-count nouns. Although they may not be compatible with non-referential or generic uses yet (as this represents the last development in the grammaticalization cline), they may be assigned these uses in the future (see criteria for articlehood, section 2.3).

Several scholars have also distinguished between so-called 'surface articles', the visible morphemes *the* and *a/an*, and 'invisible' articles as, for example, in *I like coffee* or *hand in hand*. Compare the two object noun phrases in *I like music* and *I like Peter*. Although superficially the two nouns *music* and *Peter* look alike, as neither takes an article, there is a conceptual difference. In the first case

we have a common noun which can have so-called ‘article contrast’, e.g. *music* vs. *the music*, whereas in the second case *Peter* usually does not take an article. Thus Quirk et al. (1985: 246) propose that *music* has a so-called ZERO article, whereas proper nouns, which generally do not have this kind of article contrast (*Peter* vs. **the Peter*) are considered to have ‘no article’ at all.

Chesterman (1993: 13) criticizes this article distinction for various reasons. First of all, it is not true that proper nouns never take an article e.g. *The Peter I know*. Additionally, Quirk et al. state that the ZERO article has an indefinite reading and thus occurs before indefinite mass and plural nouns (*cheese, biscuits*). This, however, forces Quirk et al. to come up with a “strange hybrid” (Chesterman 1993: 13), namely “zero article with definite meaning”, to account for the lack of the article before singular count nouns in idiomatic expressions like *hand in hand* (Quirk 1985: 274). Alternatively, Chesterman (1993: 13), like many others (e.g. Yotsukura 1970), calls the invisible article in bare indefinite NPs ZERO and in definite noun phrases NULL.³⁴ In other words, Chesterman postulates the existence of two invisible articles. In contrast to such suggestions, I side with Berezowski who finds the concept of the ZERO article illogical and discards it “into the limbo of oblivion” (2009: 2). Similarly, I will not employ the notion ZERO article and NULL article. Either a noun phrase has a visible article as a dependent or it has no article. The visible article can either be *the, a/an* or *some/any*. Bare noun phrases, on the other hand, have no article. As will be shown in chapter 7, a constructionalist approach avoids the need for postulating invisible articles.

2.2.5 Frequency distribution

In terms of frequency, the definite article is far more frequent than the other definite determiners in all genres (Biber et al. 1999: 270). Additionally, as can be seen in the graph below, the definite article is most frequent in academic writing and about twice as frequent as the indefinite article in all genres except conversation where the frequencies of the indefinite and the definite article are more similar.

³⁴ For an extensive discussion of the differences between the two, see Chesterman (1993) and Quirk et al. (1985: 5.39–5.51)

Tab. 8: Article distribution in the COCA (2017)

SECTIONS	FREQ		SIZE (M)	PER MIL	
	definite	indefinite		definite	indefinite
SPOKEN	5,054,911	2,662,424	109.4	46,209.30	24,338.46
FICTION	5,549,037	2,684,772	104.9	52,897.93	25,593.43
MAGAZINE	5,903,126	3,113,179	110.1	53,610.86	28,273.19
NEWSPA- PER	5,665,770	2,932,240	106.0	53,468.90	27,672.08
ACADEMIC	6,520,063	2,365,453	103.4	63,043.30	22,871.86

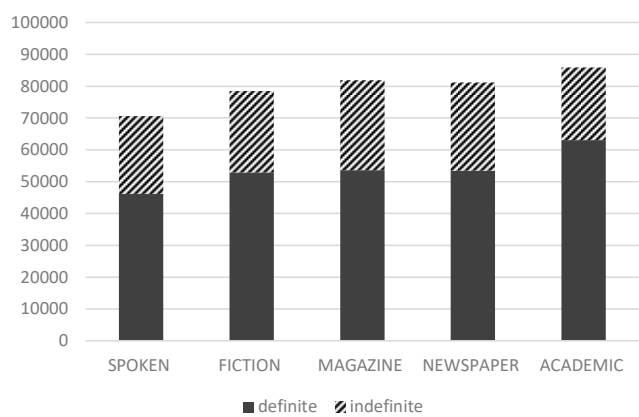


Fig. 1: Article distribution in the COCA (2017)

The overall distribution of the indefinite article is relatively similar across registers, from which it may be concluded that in all registers there is a similar communicative need to introduce new entities in discourse. Still, in conversations speakers use the indefinite article a little less “presumably because this register is more repetitive and because it deals with familiar topics” (Biber et al. 1999: 268).

In the written registers, the definite article is much more common than the indefinite article because it has a greater range of uses. First, it combines with both countable and uncountable nouns, as well as both singular and plural nouns. In addition, the definite article is

used commonly for subsequent mention, and when used cataphorically, it can also introduce new referents. In contrast, indefinite articles are used primarily to introduce new referents. While the introduction of a referent is performed once, subsequent mention is often repeated. (Biber et al. 1999:267)

Somewhat unexpectedly, anaphoric reference only accounts for less than a third of definite noun phrases in all the registers:

Despite the perception that definite noun phrases are usually used for anaphoric reference, they are more commonly used for other purposes. At the same time, anaphoric reference is marked by pronouns and a range of other devices. (Biber et al. 1999: 266)

In Biber et al.'s data, the immediate situational reference is found in more than 50% of the cases in conversation, but accounts for only about 10% in the written genres. 30%–40% of the definite noun phrases in news and academic prose have cataphoric reference. The high frequency of cataphoric reference in academic prose and news reports is definitely connected with the complexity of noun phrases in these registers. Finally, the figures for generic reference are generally very low (Biber et al. 1999: 266).

It can also be observed that indefinite subjects with an indefinite article are less frequent than definite subjects. The object in the clause is usually associated with new information. That is why, according to information principles (theme–rheme, topic–focus), there is a higher proportion of indefinite noun phrases towards the end of the clause. Subject NPs tend to be definite allowing the speaker/writer to provide both a link with the preceding text and a starting point for the message to come (Biber et al. 1999: 269).

2.3 Demarcation criteria for articlehood

So far, diagnostic criteria for 'articlehood' have not been clearly defined by linguists. The goal of this section is to fill this gap by suggesting and discussing testable criteria for the demarcation of the definite and indefinite article in English. As we have seen above, the articles historically developed from the demonstrative *that* and the numeral *one*; elements which are also traditionally classified as determinatives, but which obviously have a different syntactic distribution and also differ in meaning. This is why it is necessary to briefly discuss the characteristic features of demonstratives and numerals as well. For reasons of comparison, I will also look at the behavior of adjectives. Altogether, seven criteria which define 'articlehood' will be proposed. In the following sections, the criteria will first be presented one by one (sections 2.4.1–2.4.7). Afterwards, in a separate section,

it will be discussed how helpful they really are to distinguish the articles from other determinatives (section 2.4.8).

Before we go through the individual criteria, a few general remarks seem necessary. First of all, all seven criteria are based on the behavior of the articles in Modern Standard English (the UK and US variety). This means that some of these criteria may not have been met in earlier stages of English. Note also that most of these have been suggested and used by other scholars; see for example Van de Velde's five criteria for 'determinerhood' (2010: 268–269; but also Giusti 1997: 103; Diessel 1999b: 118; Payne and Huddleston 2002: 354–358, 452, 538). In most cases, they have been used to demarcate the whole class of determinatives which, as mentioned before, is quite a complex task, with researchers still arguing about the category membership of several determinatives. This book, however, is about the articles, which I consider the prototype members of the category, and the criteria mentioned here are intended exclusively to define articlehood. Additionally, some criteria may not fit article usage in other languages. This means that the proposed criteria are not universal but are meant to define English articles only. Finally, some of the criteria are semantic, while others are more syntactic. By 'syntactic' I mean formal and distributional features such as co-occurrence restrictions or positional dependence.

2.3.1 Criterion 1: No Independence

As a first criterion I discuss the notion of 'independence'. One observable difference between the articles and demonstratives or numerals is that the articles are dependent on the noun, in the sense that they cannot occur by themselves (Giusti 1997: 103). In other words, *the* and *a/an* do not occur except before nouns and have no other function than grounding, or anchoring the following noun. In contrast, demonstratives and numerals can occur by themselves, heading their own phrases (e.g. as a subject or object complement); compare *this man* with *I like this* or *I see one car* vs. *give me one*. Also the adjective is separable from its head when used predicatively (*The day was beautiful*) and can act as a head (*Let's help the poor*). Based on these observations, the first criterion is **NO INDEPENDENCE: A prehead dependent which cannot occur independently of its head is likely to be an article**. Note that the wording 'is likely' is relevant. Such a definition does not entail that every dependent element in a language is always an article. For example, the quantifier *every* cannot be used independently but is not an article.

2.3.2 Criterion 2: No Predication

Dealing with predication, Van de Velde presents the following criterion to distinguish between determinatives and modifiers: “If an adnominal element can act as a predicate, it is not a determinative” (Van de Velde 2010: 268). A predicative complement is an element of the predicate of a sentence which complements the subject or object. It may be nominal or adjectival as well as prepositional and is linked to the subject by a copula verb. In the case of English, this copula is *be* but also some other verbs fulfill this function (e.g. *to become*, *to get*, *to feel*, *to seem*; *He became president*).³⁵ Adjectives can act as predicative complements but *the* and *a/an* cannot. Compare *The problem is obvious* vs. **The problem is the*.

Therefore, a slightly adapted version of Van de Velde’s criterion is **NO PREDICATION: A prehead dependent which cannot function as a predicative complement is likely to be an article**. Again, such a definition does not mean that all elements which may be banned from the predicate position, are always articles (Van de Velde 2010: 268). Some adjectives (e.g. *utter*) do not occur in predicate position either; this, however, may have different reasons (Denison 2006: 283). Obviously, this criterion is closely linked to the INDEPENDENCE criterion because demonstratives, numerals and adjectives stand alone when functioning as predicative complements.

Van de Velde points out that his argument is not watertight as there are cases like *The problem is this*, where, for him, the demonstrative can be used predicatively as well. In this example, however, I argue that *this* is not used predicatively but functions to specify. The postcopular part of a specifying construction is not predicative and allows reversal (*This is the problem*); in that sense it is a kind of identifying construction and all that is confirmed is that *this* can stand alone (Criterion 1).

2.3.3 Criterion 3: No Co-occurrence

The third criterion is co-occurrence. As prehead elements, adjectives show almost no co-occurrence restrictions. The use of an adjective does not generally preclude the use of another adjective. They occur with determinatives and other adjectives and may even occur more than once for emphasis (*my big beautiful house*; *my big,*

³⁵ Predicates can either be “identifying (equative, specificational, extensive...) [...] [or] characterizing (ascriptive, classificational, intensive...)” (Van de Velde 2010: 294); compare *This is Sarah* (identifying) to *He is dead* (characterizing).

big wedding); except in cases of semantic anomaly (**He was a short tall kid*). Articles, on the other hand, are extremely limited in their ability to co-occur. Although they can freely co-occur with adjectives, they are not only mutually exclusive, but cannot co-occur with any other determinative (**a a book*; **the my book*). In other words, the articles are non-iterative (Quirk et al. 1985: 254). Thus, the third criterion is **NO CO-OCCURRENCE: a prehead dependent which cannot co-occur with itself or other determinatives is likely to be an article.**

One might object by saying that in English we find the following noun phrases: *all the books*, *half the ink*, *both the students*, *a few books*, *the same ink*, *the many people who where there* which contradict the ‘no co-occurrence’ statement (Spinillo 2000: 174; Denison 2006: 284). In all these cases, the articles co-occur with elements that have been classified as determinatives by many scholars, so that the criterion does not work unless one limits ‘no co-occurrence’ to the group of ‘central’ determinatives (Quirk et al. 1985: 253–255).³⁶ Note, however, that I do not categorize the underlined elements above as determinatives in the first place. All the elements above are quantifiers (except for *same* the status of which is difficult). At the same time we can also analyze these noun phrases as reduced versions of *all (of) the books*, or *half (of) the ink*; (i.e. partitive constructions). Especially *all* is very flexible which is why it can be seen as a ‘free floating’ quantifier. In other words, just because these elements sometimes show up in a predeterminer position does not mean that it is feasible to postulate that they are determinatives. Such an analysis at the same time leads to the fact that the criterion holds.

What can be said about the behavior of the English demonstratives and numerals? Numerals cannot co-occur with themselves **two two books* but they can combine with a determinative *my two books*, *the two books*. The criterion still holds because numerals are not determinatives but quantifiers. In the case of demonstratives, their usage precludes co-occurrence with themselves or other determinatives in Modern English (**this this book*; **my this book*; **the this book*). Admittedly, we find patterns like *this my uncle* but they are highly marked (poetic style) and extremely rare, which is why I don’t treat them as a productive pattern of English.

36 As mentioned before, Quirk et al. (1985: 253–255) have subcategorized the determiner group into (a) predeterminers, (b) central determiners and (c) postdeterminers. The main idea behind such subcategories is that among the three subclasses only the order (a) + (b) + (c) is acceptable and that items from a single subclass can only combine with the other subclasses but not with themselves.

Note that ‘co-occurrence with itself’ is an essential condition. Only if the element does not occur with itself, can one determine for sure whether it is an article. Without this particular constraint, the criterion becomes circular. For example, if a speaker parses the utterance *the big house* and s/he does not know beforehand that *the* is supposed to be the determinative and *big* the adjective, then the observation that *big* and *the* co-occur with each other could lead to the conclusion that both elements are adjectives. In other words, this criterion cannot be applied without first determining whether something is a determinative or not. If one does that, however, the criterion becomes circular. The only way to make it non-circular is to test it on two tokens of the same type. Only then is there no need for any predefinitions. So the safest criterion to decide whether something is an article and to distinguish between the classes is to basically apply the criterion on the same token of the same type. In contrast to this, the fact that *big* in the case of *big*, *big house* can co-occur with itself before a noun makes it an adjective.³⁷ Note that the whole class of determinatives is said to be mutually exclusive which is why demonstratives and possessives also meet the NO CO-OCCURRENCE criterion. This shows that if this criterion was the only one applied, one could not clearly demarcate demonstratives from articles. This is why more criteria have been set up.

2.3.4 Criterion 4: Relative Position

Another characteristic feature of the articles is that they occupy the position left of the quantifier and the modifier in the noun phrase. In the noun phrase, the articles are often the leftmost node (e.g. *The beautiful girl*; *an interested student*). The same holds for the demonstratives and possessives. Based on this observation, Van de Velde concludes that

[i]f an adnominal dependent occurs to the right of an element that is not a determiner, but an adjunct [i.e. modifier], it is not a determiner itself (Van de Velde 2010: 269).³⁸

³⁷ The fact that I can repeat *very* in *very*, *very nice* makes *very* a repeated degree modifier.

³⁸ Van de Velde points out that “the latter criterion is perhaps not entirely watertight: in some cases, a plain adjective indeed precedes the article, as in *so beautiful a daughter* (Quirk et al. 1985: 1323; Payne and Huddleston 2002: 435). However, this construction did not occur until the thirteenth century in English (Fischer 1992: 215), and has a somewhat special status, in that the indefinite article in this construction, like in its Dutch counterpart, is historically presumably a

Similarly, I suggest the following: for an element to be an article it must be positioned before any quantifier and modifier (i.e. in the determination zone). The fourth demarcation factor shall therefore be **RELATIVE POSITION: a prehead dependent which occurs to the left of any quantifier or modifier is likely to be an article**. In other words, an element that e.g. occurs after any modifier is not an article. For this criterion to work we need to define which elements are quantifiers and modifiers. An obvious criterion may be: an adnominal dependent that does not meet at least one of the criteria mentioned here is not a determinative but belongs to another category. Note that this criterion does not exclude the possibility that elements which occur left of a quantifier/modifier are quantifiers/modifiers themselves. Also this criterion would not identify *the* as an article in an NP like *half the group*.

2.3.5 Criterion 5: Obligatoriness

Another noticeable difference between the articles on the one hand and demonstratives/numerals and adjectives on the other is that in PDE the articles are obligatory default elements to mark (in)definite reference with singular count nouns. They have to be used, unless some other (semantically richer) element is used to express (in)definiteness (Van de Velde 2010: 268). Adjectives, on the other hand, are optional elements which can be disregarded without damaging the grammaticality of the phrase. Compare a sentence like **beautiful girl gave me a smile* with the sentence *The girl gave me a smile*, where no adjectival modifier is added but which still is grammatical.

The demonstrative and the numeral are also not employed as obligatory default markers. If, for example, a demonstrative is used as a prehead dependent in a noun phrase, it automatically gives the NP reference and determines it, but this then is a “parasitic” side effect, as the main job of the demonstrative is to indicate spatial deixis (Van de Velde 2010: 266). This means that a speaker’s choice to use the demonstrative is first and foremost pragmatically (identifiability) and semantically motivated (spatial deixis). Only the article has to be used ‘obligatorily’ in some cases. Usage then could be seen as syntactically motivated rather than semantically.

The article is the default marker which is used if no other element functions as a determinative. So the fifth criterion concerns **OBLIGATORINESS: a prehead**

reinterpreted flexional morpheme (Van der Horst and Van de Velde 2003).” (Van de Velde 2010: 269)

dependent which is an obligatory default marker to indicate (in)definiteness is likely to be an article.

2.3.6 Criterion 6: Exclusiveness

If we move on to semantics, it can be said that adjectives are semantically rich; they encode type-specifying information. On the other hand, the articles have specialized in exclusively expressing (in)definiteness and do not express other meanings. For example, the article is neutral with regard to proximal distance (Diessel 1999b: 118). Demonstratives also express definiteness but are semantically richer as they also express proximity. So they have a stronger semantic value (Giusti 1997: 111; Sommerstein 1972).

[Demonstratives] are primarily used to focus the hearer's attention on objects or locations in the speech situation (often in combination with a pointing gesture) [...] orient[ing] the hearer outside of discourse in the surrounding situation. (Diessel 1999b: 2)

From this perspective, the demonstrative must be considered a slightly less prototypical member of the determinative class than the article. The possessive pronoun also has more semantic content and thus is also less central than the articles. This relates back to the concept of gradience: the fewer additional meanings an element has, the more central/prototypical the element will be in the category. The articles, which are limited to the indication of definite/indefinite reference, are most central. From such a perspective one could argue that the determination function attaches to demonstratives and possessives indirectly. Numerals obviously are also richer when it comes to semantic meaning. The sixth criterion I would thus like to list is what has been termed the **EXCLUSIVENESS** criterion (Van de Velde 2010: 268–269): **a prehead dependent which exclusively expresses (in)definiteness is likely to be an article**. The exclusiveness criterion thus has to do with the degree of semantic content of the element; it is, however, not easy to employ. Very often it will be difficult to judge if a deictic/numeric reading in a certain OE utterance is possible or not. In many cases a non-deictic/non-numerical reading is often as possible as a deictic/numerical reading. This problem will be discussed further in sections 4.1.1, 4.1.2 and 5.5.6.

2.3.7 Criterion 7: Syntactic Motivation Only

In some rare cases, articles are semantically ‘empty satellites’ of the noun. As was already mentioned in sections 2.2.1 and 2.2.2 in a number of fixed expressions, the article is required rather arbitrarily, as the expression does not refer to a special unique identifiable entity (*Let’s dance the rumba, As a hobby she plays the violin*) (Payne and Huddleston 2002: 407–408). In none of these examples do we find that the article is really semantically motivated (familiarity, uniqueness, identifiability). One could say they simply indicate nounhood. So it has been argued that “contrary to other determiners, articles are not inserted for semantic, but rather for grammatical (morpho-syntactic) reasons” (Giusti 1997: 104). In other words, articles are sometimes being used not because there is some semantic or discourse-pragmatic motivation but simply because the paradigm demands it. So whereas exclusive syntactic motivation is never sufficient for an adjective or a demonstrative/numeral, using an article can be exclusively syntactically motivated. Thus, the seventh criterion is **SYNTACTIC MOTIVATION ONLY: a pre-head dependent which is exclusively syntactically motivated is likely to be an article.**

What other differences can be identified between the various kinds of determinatives and adjectives? Adjectives are an open word class, whereas the articles, the demonstratives and the numerals belong to a paradigm. On top of that, most adjectives are gradable and articles/demonstratives/numerals are not. However, I believe that those facts are less reliable to serve as diagnostics for articlehood. The fact that article, numeral and demonstrative belong to a closed word class and are non-gradable is not a good demarcation criterion for articles because this picks up only non-gradable adjectives and all three elements belong to a closed class. This only helps to distinguish them from adjectives.

2.4 Concluding remarks: primary and secondary criteria

In summary, the following seven criteria have been used to determine articlehood:

1. NO INDEPENDENCE: a prehead dependent which cannot occur independently of its head is likely to be an article
2. NO PREDICATION: a prehead dependent which cannot function as a predicative complement is likely to be an article
3. NO CO-OCCURRENCE: a prehead dependent which cannot co-occur with itself or other determinatives is likely to be an article

4. **RELATIVE POSITION:** a prehead dependent which occurs before any quantifier or modifier is likely to be an article
5. **OBLIGATORINESS:** a prehead dependent which is an obligatory default marker to indicate (in)definiteness is likely to be an article
6. **EXCLUSIVENESS:** a prehead dependent which exclusively expresses (in)definiteness is likely to be an article
7. **SYNTACTIC MOTIVATION ONLY:** a prehead dependent which is exclusively syntactically motivated is likely to be an article

When we look at Present Day English, it can be observed that whereas the definite article meets all the criteria at this stage, the indefinite article meets all except one. It is not obligatory with plural and mass nouns. The demonstratives and numerals meet one or two. The semantic and syntactic behavior of the adjective category meets none of the criteria set up for articlehood. These observations are summarized in Table 9:

Tab. 9: Fulfillment of criteria in Present Day English

	NO INDEPENDENCE	NO PREDICATION	NO CO-OCCURRENCE	RELATIVE POSITION	OBLIGATORINESS	EXCLUSIVENESS	SYNTACTIC MOTIVATION ONLY
definite article	+	+	+	+	+	+	+
indefinite article	+	+	+	+	(-)	+	+
demonstrative	-	-	+	+	-	-	-
numeral	-	-	(-)	+	-	-	-
adjective	-	-	-	-	-	-	-

This leads to another essential point. So far, nothing has been said about the quality of the listed criteria. Only when the criteria are applied on a certain data set in order to decide if a certain form deserves to be called an article, will we be able to see if the criteria are really useful. Obviously they are useful to demarcate the articles in Modern English, but it will have to be checked if they are useful for the demarcation of potential articles in Old English. The reader will find a detailed critical discussion of the applicability of the proposed criteria in the second

part of this book (chapter 5 and 6). So although the usefulness of the criteria still has to be tested, and although defining criteria based on a certain linguistic stage as a means to distinguish categories at an earlier stage may be criticized in general (Spinillo 2000), I will take them as the basis for now. Note however, that potentially some of the criteria will have to be dismissed in the course of this analysis.

The main argument is that an element needs to behave in a certain way to deserve being called an article. All the criteria together build up the notion of articlehood. Each criterion helps to decide on articlehood. The plurality of criteria in itself suggests that being an article is not an either/or question, but a gradual issue. An element can be more of an article or less of an article. If an element does not fulfill any of the criteria it is not an article. If an element meets several of the criteria, this increases the likelihood of being an article. Therefore, articlehood is an 'umbrella term' for an element which fulfills several different sub-conditions at the same time. One criterion on its own does not constitute articlehood, only when several criteria are met, can we speak of an article.

This directly leads to the essential question of how many and which of the criteria have to be met in order for an element to deserve articlehood? This will be an arbitrary decision, made by the researcher. A very restricted (but possible) point of view would be to demand all seven criteria to be met for an element to deserve the title 'article'. For reasons mentioned below, I consider such an approach too strict. So how then should we deal with the proposed criteria and their (non-)fulfillment?

One option is to take a gradient perspective. If an element in a certain language stage only fulfills two out of seven criteria calling it an article will be questionable; if, on the other hand, for example, five out of seven criteria are met, it is reasonable to classify it as an article. Category membership thus is gradient. A fact understood much better if one takes a diachronic perspective and understands that the behavior of linguistic elements constantly changes in the course of time; it is possible that an element comes to be assigned to a different category because it grammaticalizes. When doing so, the element takes up new characteristic features and loses others and often those features are taken up one after the other. This can lead to the fact that an element at a certain point in time does not fulfill all 'necessary' criteria and must be considered as a non-prototypical but valid member of the category, which potentially will meet more and more criteria in due course (also see section 4.2.5 for further thoughts on gradience, gradualness and the fuzzy nature of grammaticalization).

The second option is to ask oneself if some criteria are more important – so to speak better, more central – than others. Those then would *have to* be met to deserve articlehood. This amounts to weighing the criteria.

Some of the listed criteria indeed seem to be more important than others. I suggest a distinction between primary and secondary criteria. In our case, I argue that the primary ones are NO CO-OCCURRENCE, RELATIVE POSITION and OBLIGATORINESS. Their clue validity is higher and these criteria are directly linked to what could be called a ‘positional, lexically underspecified slot’ in the prehead. The fact that an article does not co-occur with other determinatives, the fact that it occurs before the quantifier/modifier and the fact that it is the default (obligatory) marker to express (in)definiteness, is not so much a feature of the particular form, but rather the result of the existence of a syntactically underspecified slot, which is functional in itself.

For example, it is inadequate to speak of obligatoriness with reference to the form but with reference to the slot. A phrase like **He meets supervisor* is ill-formed but you find sentences like *He meets my supervisor* where no article is used; thus the article is not an obligatory marker. Rather it is the default marker if the slot is not filled by another determinative. It is a default filler of a slot which has to be filled obligatorily. A slot is nothing but a relative position; a structure which can be filled by a formal element. It seems reasonable to assume that the moment a speaker becomes aware of such a slot, s/he can assign a function to this slot as well. In other words, if such a slot exists, filling the slot or leaving it empty can be meaningful in itself. The slot itself becomes functional. Certain ‘regularities’ can be observed in how to fill the slot. For example, it seems to be one characteristic feature of the slot that it can only be filled by one determinative at a time.

As has been mentioned in the introduction, (in)definiteness is marked overtly in various ways in the languages of the world. On the one hand, an element that has some additional semantic load (possessiveness, deixis) can be positioned rather freely in or outside of the noun phrase (position after or before the head) or, on the other hand, a fixed position might be reserved for those elements. Thus, one criterion to distinguish a determinative from an adjective in a language might be that a particular syntactic slot for its occurrence can be identified; such as the one in the prehead left to the quantifier and modifier slot in Modern English. If the speakers feel the necessity to fill the slot obligatorily in certain situations (for reasons which will be discussed in chapter 7), it is a logical development that one of its potential fillers becomes the ‘default’.

What I suggest is that we should not separate the notion of articlehood from the existence of a determination slot. I suggest that the term article should only

be introduced in English when we also can identify a fixed positional determination slot. Only after the positional fixation of such a slot does it make sense to call an element an article. In other words: no slot, no article (see chapter 7).

This also relates to the fact that the criteria are different in their nature. Not all of the criteria are scalable. For example, with the EXCLUSIVENESS criterion an item can carry more or less semantic content – a gradient scale so to speak, but there are other criteria, where a ‘more or less’ notion cannot be applied. Either an element is obligatory in a specific position or not! Admittedly, it will be difficult to decide when exactly this slot emerged as it will be difficult to distinguish between a grammar where definiteness is marked often but still optionally (and in different syntactic locations), and a grammar which employs a fixed positional slot which (under certain conditions) needs to be filled. Here, however, the argument should be that, as a qualitative criterion in the Hegelian sense, at one point a quantitative change amounts to a qualitative change. If we can observe an increase in overt (in)definiteness marking at a specific positional location in the prehead, this suggests a change in the grammar as well. All the criteria which have been set up in this section will be applied to an older language stage in chapter 5. Then it will be seen if they work to clearly separate the various word classes.

I would like to end this chapter by offering my working definition of the English articles. An article is defined as a linguistic element which is a syntactically fixed default slotfiller used to exclusively and obligatorily mark (in)definiteness. Elements which do not fulfill these criteria should be called ‘weak demonstratives’ or ‘near-articles’ instead.

3 Article emergence in Old English

The conditions of the birth and life of a grammatical category are still involved in much obscurity. (Christophersen 1939:18)

Why is it that grammaticalization clines are set in motion in some languages but not in others, or set in motion at some stage of language and not at another? (Hawkins 2004: 82)

After I have discussed several structural and cognitive aspects of noun phrase structure and article usage in the last chapter, this chapter looks at the diachronic development of the definite and indefinite articles in English. Section 3.1 examines how the source grams *se* and *ān* were used in Old English. In section 3.2 some functionalist and generative proposals on article development in English will be presented and critically reviewed. My own constructional proposal for why and when the articles emerged will not be presented in this chapter but in chapter 7.

3.1 Demonstrative *se* and numeral *ān* as source grams

As has already been mentioned repeatedly, the definite English article *the* derived from the OE demonstrative *se*, and the indefinite article *a/an* developed out of the OE numeral *ān*. Before proceeding to examine the status of *se* and *ān* in more detail, it is necessary to say a few words about OE syntax in general.

Old English (at least in its ‘classical’ West Saxon form) is constructed according to a complex relationship between gender, number and case. It is a system where number and case information is carried (primarily) by inflection (ex.55 and ex.56).

- (55) Ac þa þe innan **þam**_{DEM-DAT} **niwan**_{ADJ-DAT} **castele**_{CN-DAT-SG} **wæron** ...
But those who in **that** new castle were ...

but those who were in the new castle’
(cochronE,ChronE_[Plummer]:1095.35.3222)

- (56) furðon on **þa**_{DEM-ACC} **wildan**_{ADJ-ACC} **fennas**_{CN-ACC-PL} hi ferdon
even into **the/those** wild marshes they travelled

‘they even travelled into the wild marshes’
(cochronE,ChronE_[Plummer]:1010.11.1779)

Compared to Present Day English, Old English was highly inflected. Verbs inflected for person and number and had an indicative, imperative and subjunctive

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mood. The 4-case system was simpler than that of Latin as there was no ablative or no locative anymore (all of them in time merged with the dative). Nouns, pronouns, demonstratives, interrogatives, and adjectives were inflected for nominative, genitive, dative, accusative case and some remnants of an instrumental case persisted in the demonstrative (see Table 10).

Tab. 10: Partial system of OE noun declensions (based on Hogg 1992: 126–136)³⁹

GENDER and NUMBER						
	masculine		feminine		neuter	
Strong Noun Declension						
CASE	stan (stone)		lufu (love)		sċip (ship)	
Nominative	<i>stān</i>	<i>stānas</i>	<i>lufu</i>	<i>lufa</i>	<i>sċip</i>	<i>sċipu</i>
Accusative	<i>stān</i>	<i>stānas</i>	<i>lufe</i>	<i>lufa</i>	<i>sċip</i>	<i>sċipu</i>
Genitive	<i>stānes</i>	<i>stāna</i>	<i>lufe</i>	<i>lufa</i>	<i>sċipes</i>	<i>sċipa</i>
Dative	<i>stāne</i>	<i>stānum</i>	<i>lufe</i>	<i>lufum</i>	<i>sċipe</i>	<i>sċipum</i>
Weak Noun declension						
CASE	guma (man)		hearpe (harp)		eage (eye)	
Nominative	<i>guma</i>	<i>guman</i>	<i>hearpe</i>	<i>hearpan</i>	<i>eage</i>	<i>eagan</i>
Accusative	<i>guman</i>	<i>guman</i>	<i>hearpe</i>	<i>hearpan</i>	<i>eage</i>	<i>eagan</i>
Genitive	<i>guman</i>	<i>gumena</i>	<i>hearpan</i>	<i>hearpena</i>	<i>eagan</i>	<i>eagena</i>
Dative	<i>guman</i>	<i>gumum</i>	<i>hearpan</i>	<i>hearpan</i>	<i>eagan</i>	<i>eagum</i>

Pronouns, demonstratives and adjectives were also marked for number (singular, e.g. *min*, *þin*, plural *urea*, *ewer* with a third category dual *under*, *inker* in the pronoun system) and gender (e.g. masc. *he*, fem. *hie*, neut. *hit*). Also they agreed within the phrase – a feature lost from English by the time of Chaucer (Ringe and Taylor 2014: 342–389). Note that today’s possessive determinatives developed out of the genitive case forms (e.g. *mīn*, *his*, *ūre*; see Table 11).

³⁹ There are also irregular strong nouns (e.g. *dæg*) and so-called mutating strong nouns (e.g. *fōt*), as well as a special group of so-called relationship nouns (e.g. *dohtor*, *mōdor*,...), which are declined differently (Hogg 1992: 136–137).

Tab. 11: OE pronouns (Hogg 1992: 144–145)

1st person			
Case	Singular	Plural	Dual
Nominative	<i>ic, ĭc</i>	<i>pē</i>	<i>pīt</i>
Accusative	<i>mec, mē</i>	<i>ūsīc, ūs</i>	<i>uncit, unc</i>
Genitive	<i>mīn</i>	<i>ūre</i>	<i>uncer</i>
Dative	<i>mē</i>	<i>ūs</i>	<i>unc</i>
2nd person			
Case	Singular	Plural	Dual
Nominative	<i>pū</i>	<i>gē</i>	<i>git</i>
Accusative	<i>pēc, pē</i>	<i>ēopic, ēop</i>	<i>incit, inc</i>
Genitive	<i>pīn</i>	<i>ēoper</i>	<i>incer</i>
Dative	<i>pē</i>	<i>ēop</i>	<i>inc</i>
3rd person			
Case	Singular	Plural	
Nominative	<i>hē (masc.) hēo (fem.) hit (neut.)</i>	<i>hīe (masc./neut.), heo (fem.)</i>	
Accusative	<i>hine (masc.), hīe (fem.), hit (neut.)</i>	<i>hīe (masc.), hīo (fem.)</i>	
Genitive	<i>his (masc./neut.), hire (fem.)</i>	<i>hiera (masc.), heora (fem.)</i>	
Dative	<i>him (masc./neut.), hire (fem.)</i>	<i>him (masc./fem.)</i>	

3.1.1 Investigating the usage of *se* in Old English

The grammaticalization of the OE demonstrative into a definite article can be considered a frequent typological development, as both elements are always applied to referents that possess some quality of identifiability (see section 3.2.2). Two members of the paradigm have survived in Modern English: the neuter nominative/accusative form *pæt* has preserved “its pure demonstrative signification” (Christophersen 1939: 96) and developed into ModE *that*. The masculine nominative form *se* (employing the onset *p-* from the other cases) developed into the definite article *the* (van Gelderen 2007: 297; Christophersen 1939: 84; Mustanoja 1960: 169; Mitchell 1985: 127–129). So far it has not been discussed in detail why the speakers picked the nominative form rather than another one from the paradigm. One reason might be that a shorter form (with a CV structure) is generally

more preferred than a longer form (CVC). Moreover, /e/ as a midvowel (which is ultimately reduced to /ə/) is easier to produce than for example /æ/. It is also unclear why speakers started to merge the nominative masculine form with the *þ*-onset from the other cases. I assume that the high number of *þ*-forms in the inflectional paradigm might have played a role. The high type and token frequency of *þ*- may have exerted some pressure on the speakers to use it as an onset instead of /s/.

Concerning its Proto- and West-Germanic ancestors, the demonstrative *se* is a continuation of the Proto-Germanic pronominal stems **so*, **sā*, **pat*, **tod* (Prokosch 1939: 269).⁴⁰ Table 12 shows the OE paradigm of *se*.

Tab. 12: Declension of *se* in Early West Saxon (Hogg 1992: 143)⁴¹

case	singular			plural
	masculine	feminine	neuter	all genders
N	<i>se, sē</i>	<i>seo</i>	<i>þæt</i>	<i>þā</i>
A	<i>þone</i>	<i>þā</i>	<i>þæt</i>	<i>þā</i>
G	<i>þæs</i>	<i>þære, þāre</i>	<i>þæs</i>	<i>þāra, þæra</i>
D	<i>þæm, þām</i>	<i>þære, þāre</i>	<i>þæm, þām</i>	<i>þæm, þām</i>

As can be seen, the demonstrative system is still quite elaborate in Old English. It displays an interesting feature which Old English has in common with Gothic (Got) and Old Norse (ON): the simple demonstrative is formed from two stems, one with *s*- and one with *þ*-/*t*- (Kisbye 1972: 141).⁴² One also has to keep in mind

⁴⁰ Also check the *Oxford English Dictionary* (OED) for further etymological information (<http://www.oed.com/viewdictionaryentry/Entry/200211>).

⁴¹ There was a masculine and neuter instrumental singular as well (with the forms *þon* and *þy*), but it is doubtful if the instrumental should be considered a real inflexional form, which is why it is not listed in Table 12. Hogg refers to it as a “fossilized relict at least partially detachable from the normal paradigm” (Hogg 1992: 143).

⁴² Other West Germanic dialects derive the simple demonstrative exclusively from the **to* stem. Compare OHG *der, diu, daz*, OS *the, thiu, that* and OF *thi, thiu, thet* with ON *sá, sú, þat* and GOT *sa, sô, þata* (Kisbye 1972). The two-part construction in several of the listed languages reflects “a well-attested type of IE demonstrative system” (Lass 1994: 143), including the idiosyncrasy of having an **/s-/* stem for masculine and feminine nominative singular, and a **/t-/* stem for neuter nominative singular and all other forms; for further details on the IE system see Lass (1994: 143).

that the class of determinatives in Old English “appeared in a considerable variety of forms, even within one dialect” (Hogg 1992: 142). The different spellings in Table 12 reflect some of the varieties which can be found, probably due to stressed and unstressed positions in the sentence.⁴³

Another paradigmatic relationship must be mentioned: *se*’s opposition to the so-called ‘compound’ demonstrative *þes*. *þes* is common to all Germanic dialects except Gothic and is formed from the simple demonstrative by the addition of the particle *–se/–si*.⁴⁴ In Old High German we have *dēse*, in Old Saxon *these* and in Old Norse *sja* (Kisbye 1972: 141; Lass 1994: 144–146).

Tab. 13: Declension of OE *þes* (Mitchell and Robinson 2001: 18)

case	singular			plural
	masculine	feminine	neuter	all genders
N	<i>þes</i>	<i>þēos</i>	<i>þis</i>	<i>þās</i>
A	<i>þisne</i>	<i>þās</i>	<i>þis</i>	<i>þās</i>
G	<i>þisses</i>	<i>þisse, þisre</i>	<i>þisses</i>	<i>þissa, þisra</i>
D	<i>þissum</i>	<i>þisse</i>	<i>þissum</i>	<i>þissum</i>

The semantic opposition between *se* and *þes* is not clear; it is claimed that *þes* often contrasts with *se* “by pointing to something near” (Mitchell 1985: 127), similar to today’s proximal *this*. But *se* can sometimes be translated as modern *this*, and *þes* as *the*. Note that Old English had no grammaticalized proximal/distal contrast as in PDE *this* vs. *that*. Only after the 12th century does the old neuter nominative/accusative singular *þaet* begin to emerge with a clear distal sense (opposed to *þis*) (Mustanoja 1960: 168–170; Lass 1992: 114). However, already in Old English (but especially in Middle English) the sense of *þes* tended to include a stronger deictic notion contrasting with *se*’s developing anaphoric function. *þes* is much less frequent than *se*.⁴⁵ Shannon (1964: 32) counts approximately 280 examples of *se* and four of *þes* in the *Parker Chronicle* from 734 to 891. Also, the new plural types *þes-e* and *tho-se* emerge only after the 13th century. As the definite

⁴³ Brunner (1965[1942]: §337) and Campbell (1959: §708) offer overviews of various dialectal and diachronic (early and late) forms used during the period.

⁴⁴ Possibly related to the verb ‘see’ (Gothic *sai*) (Kisbye 1972: 141).

⁴⁵ The inflections of *þes* decayed together with those of the article; most forms marked for case were lost by the thirteenth century (Mustanoja 1960: 173; Mitchell 1985: 136; Lass 1992: 114).

article does not derive from the compound demonstrative, its usage will not be discussed any further.

3.1.1.1 Independent usage of *se*

The simple demonstrative *se* (with all its inflectional forms) could either be used as an independent element (comparable to the PDE complementizer/demonstrative pronoun *that/which/who*) heading a noun phrase or dependently as a determinative in combination with a noun. According to Mitchell (1985: 128–130), *se* could be used pronominally in the following ways:⁴⁶

It is used in a second, subsequent sentence to avoid repetition of a preceding noun:

- (57) and þær ða burh getimbrede, 7 þæs ilcan geares **þa** æt Bricge
 and there the burgh built, and in the same year that at Bridgeworth

‘and the burgh was built there, and in the same year the one at Bridgeworth’
 (cochronC,ChronC_[Rositzke]:912.2.1.1115_ID)

Se can also be found referring to a preceding clause (ex.58).

- (58) ðaða he wæs gebroht to geleafan mid ðære grapunge, þa wearð
 when he was brought to faith with the touch, then was

 seo twynnung þurh **þæt** us ætbroden
 the uncertainty by that from us taken

‘When he was brought to faith by his touch, any uncertainty was taken from us by that’
 (cocathom1,+ACHom_I_16:310.95.2998_ID)

Se may also be resumptive. In this function it is frequently anacoluthic (ex.59 and ex.60).

⁴⁶ Note that the following list is taken from Mitchell (1985: §316–327) and is incomplete as it only lists the most important uses. For a more detailed treatment of the OE uses of the independent demonstrative see Mitchell (1985: 128–130).

- (59) Babylonia, seo ðe mæst wæs ê ærest ealra burga
 Babylonia, that the greatest was and first of all cities

seo is nu læst ê westast
that/ which is now least and most deserted

‘Babylonia, which was the greatest and first of all cities, is now the least and most deserted’

(coorosiu,Or_2:4.43.33.827_ID)

- (60) þa land þe man hætt Gallia Bellica be eastan **þæm** is
 The land that one calls Gallia Bellica by (the) east [off] that is

sio ea þe man hætt Rin
 the river that one calls Rhine

‘The land that we call Gallia Bellica has the river that we call Rhine to its east’

(coorosiu,Or_1:1.18.24.364_ID)

Se also has an emphasizing, special subject-changing function. In such examples (e.g. ex.61) it is likely that *se* carried stress.

- (61) Hi habbað mid him awyriedne engel mancynnes feond and **se** hæfð
 They had with him corrupt angel mankind’s foe and that-one

andweald on ðam mannum ðe heora cyppend forseoð
 has power over the men that their creator despises

‘They had a corrupt angel with them – mankind’s foe – and that one has power over those men who their creator despises’

(cocathom2,+ACHom_II,_38:283.113.6381_ID)

Sometimes a demonstrative is used instead of a relative pronoun:

- (62) Abel, Adames sunu, rihtwis and Gode andfenge, **þone** ofsloh
 Abel, Adam’s son, righteous and to God loyal, whom/this-one slew

Cain his broðor
 Cain his brother

‘Abel, Adam’s son, who is righteous and loyal to God, was slain by Cain his brother.’

(cocathom2,+ACHom_II,_4:32.104.744_ID)

The demonstrative pronoun also appears in the OE equivalent of the ModE parenthetic and explanatory ‘that is’. Various forms like *þæt is* or *þæt sind* can be followed by several possible complements (noun complement, prepositional phrase) (Mitchell 1985: §323, §324, §325, §326; Wülfing 1894[1901]: 374–378).⁴⁷ *Se* is also frequently used in cataphoric (forward-pointing) constructions where Present Day English prefers *this* (Traugott 1992: 172).⁴⁸ The oblique cases of the neuter demonstrative *þæt* can be used as adverbs and conjunctions, either alone, e.g. *þæs*, *þy* or with prepositions, e.g. *to þæs* and *forþon* (Mitchell 1985: §318, §2418–2420). As the definite article does not derive from independent *se*, this independent pronoun/complementizer usage will not be dealt with any further in this book, unless aspects of it are related to the development of dependent *se*.

3.1.1.2 Dependent usage of *se*

Dependent *se* is accompanied by a noun or noun equivalent. It shows uses very similar to that of the ModE definite article *the* but also of the demonstrative *that*. In examples (63) and (64), it is often possible to give *se* a deictic reading, but it can be translated by ModE *the* as well. It can refer backwards, referring to something that has already been introduced (ex. 63 and ex.64).

- | | | | |
|------|--------------------------------|--|---|
| (63) | æfter þan
<i>after that</i> | þæt lond wearð
<i>the/that land</i> was | Nemned natan leaga
<i>called Natan lea</i> |
|------|--------------------------------|--|---|

‘After that, the land was called Netely’
(cochron A-1, Chron A-[Plummer]:508.1.174)

- | | | | |
|------|--|---|---|
| (64) | þy ilcan geare
<i>the same year</i> | drehton þa hergas
<i>harassed the armies</i> | on East Englum &
<i>in East Anglia and</i> |
| | on Norðhymbrum
<i>Northumbria</i> | West Seaxna londs
<i>West Saxon’s lands</i> | wiðe be þæm suðstæde
<i>widely along the south coast</i> |
| | mid stælhergum,
<i>with predatory bands</i> | ealra swiþust
<i>most of all</i> | mid ðæm æscum
<i>with the/those ships</i> |

⁴⁷ *þæt is/þæt wæs* is used with a singular noun complement irrespectively of its gender.

⁴⁸ E.g. in Present Day English one might say: *He said this: (that) the king left*; in Old English *se* is used in this construction, *He that said: (that) the king had left*, where the demonstrative precedes the verb (Traugott 1992: 172).

<i>þe hie fela geara</i> <i>which they many years</i>	<i>ær timbredon</i> <i>earlier had built</i>	<i>þa het ælfred cyng</i> <i>then king Alfred</i>
<i>timbran</i> <i>had built</i>	<i>lang scipu</i> <i>long ships</i>	ongen ða æscas against those/the ships

‘The same year the raiding armies attacked east Anglia, Northumbria and Wessex widely along the south coast with predatory bands most of all with the ships which they had built many years earlier ... then king Alfred built long ships against those ships’

(cochronA-2b, ChronA_[Plummer]:897.17.1125)

While, for example, Ropers (1918: 35–36) and Conradi (1886: 54–55) analyze *ðæm* in example (64) as a ‘stressed’ deictic demonstrative ‘...*with those ships which...*’ it can also be analyzed as the unstressed variant ‘...*with the ships which...*’ (Christophersen 1939: 92).

Se may refer to something which has already been introduced in an indirect way (ex.65) or it may point forward (ex.66). *The troops* are indirectly introduced by the NP *an army* and *earthly wisdom* is defined by a following relative clause in the posthead.

- (65) *Perseus se cyningc of Creta lande* *in Asiam mid fyrde for* & **þa ðeode**
 Perseus the king of Creta *to Asia with army went* *and the troops*
- winnende wæs oþ hi him* *gehyrsume wæron*
 fighting was until to him *obedient were*

‘Perseus the king of Crete went to Asia with an army, and was fighting the troops until they were obedient to him’

(coorosiu, Or_1:8.27.18.534_ID)

- (66) **þone eorðlican wisdom** *be þam þe* *þus awriten is*
 the earthly wisdom *about which that* *thus written is*

‘the earthly wisdom about which is written as follows’

(coaelive, +ALS_[Christmas]:227.183)

Se can have subject-changing function. In example (67) *se* indicates that the subject is no longer Herodes but the infant Christ. The use of a pronoun might have been ambiguous.

- (67) [Herodes] ðohte gif he hi ealle ofsloge
 [Herodes] thought if he them all slaughtered

þæt **se an** ne ætburste þe he sohte,
 that **that one** should not escape whom he sought

‘Herodes thought that if he slaughtered them all, then the one he was looking
 for would not escape’
 (cocathom1,+ACHom_I_5:219.72.958_ID)

Even when the pronoun is not ambiguous, *se* is often used where we expect *he* or *she* in Present Day English.

Se can refer to something for which the reader must rely on world knowledge, as in example (68) where one is supposed to know that there is only one savior, namely Jesus Christ.

- (68) **se hæland** him com to on sumere nihte mid his apostolum
 the Saviour him came to on a certain night with his apostles

‘and the savior came to him one night with his apostles’
 (coaelive,+ALS_[Basil]:109.520)

Se can occur with cardinal numbers (ex.69) and may be expanded by an additional adjective (ex.70).

- (69) wæron **þa twa byrig** getimbred Sodomeꝛ Gomorre
 were **the/those two cities** built Sodom and Gomorrah

‘the two cities Sodom and Gomorrah were built’
 (coorosiu,OrHead:1.3.4_ID)

- (70) þæt he friðiam wolde **þa leasan wudewan**
 that he make-peace-with would **the/that false widow**

‘that he would make peace with the false widow’
 (coaelive,+ALS_[Eugenia]:209.315)

In all the examples listed above, the usage of *se* is very similar to article usage in Present Day English. Nevertheless, the overall distribution of *se* differs significantly from that of modern *the*. As already mentioned in the introduction, interesting determination patterns can be found. For example, *se* is sometimes used to express possession (ex.71). In Modern English, a possessive pronoun would be preferred in the following example.

- (71) *hu ælc sunu* *bið gyngra þonne* ***se fæder***
 how every son *is younger than* ***the/his father***

‘How every son is younger than his father’
 (cocathom1,+ACHom_I,_20:342.214.4043_ID)

At the same time, it is also possible in Old English for *se* to co-occur with a possessive pronoun in the same noun phrase (ex.72), something which does not suggest that the form functions as an article, if one decides that articles do not co-occur with other determinatives (see section 2.3).

- (72) & ***his þæm godan willa*** *wel gefultmode* *Felix se biscop*
 and his that good will *well was seconded* *Felix the bishop*

‘and his good will was positively seconded by bishop Felix’
 (cobede,Bede_2:12.142.18.1372)

Finally, there are cases where no overt marking of definite reference takes place (ex.73 and ex.74). Whereas in the first part of the sentence in example (73) definite reference is overtly marked, we find no determinatives in the second part. *Healfe* and *Deniscan scipu* are determined by a determinative, but later in the text *opre healfe* and *oðrum* are not. This example gives the impression of definiteness marking being optional rather than obligatory.

- (73) *þreo asæton* *on ða healfe þæs deopes* *ðe ða Deniscan scipu*
 three ran aground *on **the side** of the deep* *where **the Danish ships***
- aseten wæron,* *ond þa oðru eall* *on **opre healfe***
 aground were, *and the other all* *on **other side***
- þæt hira ne mehte* *nan **to oðrum***
 that of them none could *get **to others***

‘Three ran aground on the side of the deep where the Danish ships were aground, and all the others on the other side, so that none of them could get to the others’
 (cochronA-2b,ChronA_[Plummer]:897.37.1144_ID)

- (74) *He is* *swiðe biter* ***on muðe***
 He is *very bitter* ***in mouth***

‘He has a bitter taste in the mouth’
 (coboeth,Bo:22.51.2.927)

Also in example (74) the noun occurs bare. Note that in this case the head noun is a body part. This example could be considered an exception in the sense that speakers might perceive body parts as inherently definite (similar to proper nouns) and therefore not feel the need to mark them overtly. As will be shown in the empirical chapters of this book, no overt marking of definiteness is the norm for body parts.

In any case, the existence of phrases like in example (73) and (74) has been repeatedly discussed in the literature as evidence for the fact that in Old English no ‘real’ definite article existed yet. Unfortunately, not many studies exist which investigate the frequency of these constructions. That is why chapter 5 presents an empirical corpus study which – among other things – investigates how frequent or non-frequent such unmarked definite NPs are.

3.1.2 Investigating the usage of *ān* in Old English

The indefinite article derives from the individualizing use of the nominative form of the numeral *ān* which goes back to IE **oino-* /Prim.Germ **ain-oz*) and was usually declined like a strong adjective:

Tab. 14: Declension of *ān* (adapted from von Mengden 2010: 76)

Case	singular		
	masculine	feminine	neuter
N	<i>ān</i>	<i>ān</i>	<i>ān</i>
A	<i>ān/āne/ænnē</i>	<i>ān</i>	<i>āne</i>
G	<i>ānes/ænes</i>	<i>ānre</i>	<i>ānes/ænes</i>
D	<i>ānum</i>	<i>ānre</i>	<i>ānum</i>

Compare Gothic *ains*, ON *einn*, OHG *ein* and OFris. *an*, *en*. The form *ænnē* and *ænes* are older than the corresponding variant with *a-* (Sievers and Brunner 1951: 277). Only in the 13th century, the form was reduced to *a* at approximately the same time as the onset vowel *a-* in the numeral was substituted by *o-*. Rissanen states that, with regards to variation, no striking dialectal variations can be detected and that in the case of translations from Latin the influence of the foreign original upon the syntax of Old English is comparatively slight (Rissanen 1967: 12).

Similarly to *se*, *ān* had many functions. Scholars do not agree what its original function was. Whereas the majority believes that the abstract numerical concept was the original function, others claim that it originally expressed the idea of ‘alone/single’ (Rissanen 1967: 2). Whatever its original function was, the word “evidently soon developed a great number of secondary shades of meaning” (Rissanen 1967: 3). Following Christophersen (1939: 98–99) and Mustanoja (1960: 292, 295), Rissanen (1967: 5) identifies four main uses of OE *ān*: (a) the strictly numerical use (in contrast to ‘two’ or ‘more’), (b) the exclusive use (‘alone, only, a single’), (c) the pronominal use (‘someone’) and (d) the individualizing usage (singling out an indefinite referent). Additionally to that there are other special constructions where *ān* means ‘once’ and could be positioned like an independent adverb. It could also be combined with *few*.

3.1.2.1 Independent usage of *ān*

Syntactically, *ān* could be used dependently or independently. As an independent element it could head its own noun phrase and was mostly used as the numeral ‘one’ (ex.75) often modified by a genitive plural (ex.76 and ex.77) or by a prepositional phrase.

- (75) and he þa sæde he þa þa he his oxan ræpte þa scoc
 and he that told as he was his oxen yoking then shook

an his heafod and mid þam horne hine þyde
one its head and with his horn him pushed

‘and he told that when he was yoking his oxen, one shook its head and pushed him with his horn’
(coaelive,+ALS_[Martin]:783.6467_ID)

- (76) þa wæs hiora **an** se Appollinus we ær ymb spræcon
 then was (of) them **one** the Appollonius we about spoke

‘Then one of them was the Appollonius who we had mentioned before’
(coboeth,Bo:38.116.1.2301_ID)

- (77) He wæs **an þæra twelfa Godes**
 He was **one of the twelve gods**

‘He was one of the twelve Gods’
(coaelive,+ALS_[Mark]:127.3285_ID)

Example (78) is a case where *ān* has the meaning of ‘alone’ and in example (79) it means ‘once’.

- (78) þa fund se cniht þa fæmnan standende on hire gebedum
 then found the boy the woman standing at her prayers

on hire bure **ane**
in her bower alone

‘Then the young knight found the woman standing at her prayers in her bower alone’

(coaelive,+ALS_[Cecilia]:72.7156_ID)

- (79) and sæde him geleafan geond seofon dagas on **an**
 and told him [the] faith for seven days at once

‘and instructed him in the faith seven days in a row’

(coaelive,+ALS_[Cecilia]:187.7227_ID)

Ān is sometimes even preceded by *se*. In these expressions the combination is generally emphatic:

- (80) [Herodes] ðohte gif he hi ealle ofsloge þæt **se an**
 [Herodes] thought if he them all slaughtered that that one

ne ætburste þe he sohte
should not escape whom he sought

‘Herodes thought that if he slaughtered them all, then the one he was looking for would not escape’

(cocathom1,+ACHom_I_5:219.72.958_ID)

3.1.2.2 Dependent usage of *ān*

Ān as a dependent element in the prehead of a noun phrase was mostly used with a numerical sense (ex.81 and ex.82).

- (81) hi **þet an gear** rixodon betwix him & Eadwine
 who that one year ruled between him and Edwin

‘Who ruled between him and Edwin that one year’

(cochronE,ChronE_[Plummer]:634.6.332)

- (82) God Fæder Ælmihtig hæfð **æenne Sunu** gecyndelice and menige gewiscendlice
 God father almighty had **one son** natural and many chosen

‘The holy father had one natural son and many chosen ones’
 (cocathom1,+ACHom_I,_19:325.18.3638_ID)

Ān could also be used in negative clauses in the sense of ‘not a single’:

- (83) on his anwealde **ne** beo furðon **an frig man**
 during his dominion **not** should be even **a single free man**

‘during his reign there should not be even a single free man’
 (coaelive,+ALS_[Auguries]:257.3649_ID)

In some examples *ān* is used without any numerical force merely to individualize (ex.84–ex.86).

- (84) þonne is **an port** on suðewardum þæm lande þone man hæ
 there is **a port** on southwards the land that one calls

Sciringesheal
 Sciringesheal

‘There is a port in the south called Sciringesheal’
 (coorosiu,Or_1:1.16.2.281)

- (85) Swaþeah is **an ælmihtig God** on his þære hean ceastre
 Nevertheless is **an almighty God** in his that high castle

‘Nevertheless, there is an almighty God in this high castle’
 (coboeth,Bo:40.141.6.2813)

- (86) Ðær wearð Alexander þurhscoten mid **anre flan**
 There was Alexander pierced with **an arrow**

‘There Alexander was pierced with an arrow’
 (coorosiu,Or_3: 9.73.18.1443)

Still, in all the examples, *ān* is compatible with a numerical reading. That is why Rissanen, in his seminal monograph on the numeral *one*, concludes:

In OE, there is no indefinite article which differs in form from the numeral *an*, but there are several hundred instances of the use of *an* in a function more or less resembling that of the indefinite article. It seems that this *an* is not yet totally unstressed – it retains the full case

endings and probably some of its original numerical or individualizing force – but it no doubt represents one stage in the development from the stressed numeral ‘one’ to the present day indefinite article *a, an*. (Rissanen 1967: 261)

3.1.2.3 No marking of indefiniteness in Old English

As seen above, there are examples where *ān* is used in a semantically bleached way to exclusively mark indefiniteness. However, the manuscripts are full of cases where indefinite reference stays unmarked with singular nouns. In all of the following examples (87–90), the singular count noun is not preceded by any determinative.

- (87) & þa gewrohte he **weall** mid turfum
 and then constructed he wall with turf

‘and then he constructed a wall with turf’
(cochronE,ChronE_[Plummer]:755.1.739_ID)

- (88) þa wæs þær **fyrd** gesomnod æt Cynetan
 then was there army assembled at Kennet

‘Then an army was assembled at Kennet’
(cochronE,ChronE_[Plummer]:1006.25.1698)

- (89) Gif hwa slea his ðone nehstan mid **stane** oððe mid **fyste**
 If anyone beats his that neighbor with stone or with fist

‘If anyone beats his neighbour with a stone or a fist’
(colawafint, LawAfeI:16.41)

- (90) & he getimbrad Bebbanburh. Sy wæs ærost mid **hegge**
 and he built Bamburgh. This was first with stockade

betined & þær æfter mid **wealle**
enclosed and that after with wall

‘And he built Bamburgh. This was first enclosed with a stockade and after that with a wall’
(cochronE,ChronE_[Plummer]:547.1.189)

Like in Modern English, there is no overt marking of indefinite plurals (ex.91 and ex.92).

- (91) & him **aðas** sworon
 and him **oaths** swore

‘and swore him oaths’

(cochronE,ChronE_[Plummer]:1086.160.2964)

- (92) ðætte ða sacerdas ne scoldon no hiera heafdu scieran mid **scierseaxum**,
that the priests should not their heads shave with razors,
- ne eft hi ne scoldon hira loccas lætan weaxan
nor after they should their locks let grow
- ac hie scoldon hie efsigean mid **scearum**
but they should clip them with scissors

‘The priests should not shave their heads with razors, nor should they grow their hair, but they should cut it with scissors’

(cocura,CP:18.139.11.945)

That is why it has been concluded that in Old English indefiniteness is not marked obligatorily:

Definiteness [...] in OE, outside of early poetry, is generally marked overtly by a demonstrative or possessive with common nouns. Indefiniteness, on the other hand, unlike in PDE where *a/an* is required with count nouns, is most frequently unmarked, [...] although the numeral *an* ‘one’ and quantifier *sum* ‘a certain, some’ are sometimes used with article-like force, in both specific [...] and non-specific [...] uses. Thus, typologically, OE is similar to Icelandic, a language that requires the marking of definite but not indefinite DPs. (Ringe and Taylor 2014: 448)

Ringe and Taylor make an important observation. They suggest that definiteness was already marked quite consistently. Even if a definite article may not have existed yet, a demonstrative or possessive is often combined with a common noun to specify referentiality. I will come back to this observation in chapter 5. To conclude this section, it can be summarized that both grammatical functional elements – the definite and the indefinite article – developed out of lexically richer elements which in terms of their syntactic position and in terms of their semantic features occupied an almost identical linguistic space.

3.2 Established views on the development of the English articles

One of the goals of this book is to answer the question why the English articles developed. Before I present my own ideas on potential factors which may have led to the grammaticalization of the demonstrative and the numeral in chapter 7, some established proposals on English article emergence shall be discussed in the following sections. After discussing a few older publications on the issue (section 3.2.1), more recent functionalist and formalist views on the subject will be compared (sections 3.2.2 and 3.2.3).⁴⁹ Finally, I will advocate a different perspective on the topic, which should complement and add to current alternative views.

3.2.1 Traditional philological views on article development

3.2.1.1 German dissertations

Scanning the existing literature on the history of the English articles, one eventually come across the vast number of ‘German dissertations’, which deal with article usage in Old and Middle English (e.g. Philipsen 1887; Diehn 1901; Seidler 1901; Lausterer 1914; Reinicke 1915; Steinhoff 1916; Weinmann 1920; Paschke 1934). These rather old publications are of a descriptive nature and primarily describe the distribution of the articles in a particular text or in a certain period. As has already been mentioned in the introduction, writers such as Flamme (1885) or Philipsen (1887) believe in the existence of a ‘real article’ in Old English. Note, however, that most of these dissertations were written by scholars with a German speaking background. That particular national background may have influenced the categorization of OE *se* as an article because in the OHG system one can more convincingly argue that an article was already used. Thus, the German scholars

⁴⁹ Functionalism and formalism differ from each other on various points, most of which cannot be discussed here (Givón 1995; Newmeyer 1998; Butler 2003; Fischer 2007; Heine and Narrog 2011). For the formalists in the Chomskyan tradition the proper object of study is *langue* (‘competence’, ‘I-language’); for the functionalists it is *parole* (‘performance’, ‘E-language’). Opinions also differ on what a ‘grammar’ is. On the one hand, grammar has been equated with the syntactic component only (formalist perspective); on the other hand, it is synonymous with all language output, characterizing a corpus of utterances, including the lexicon and phonological rules. Finally, opinions differ on how the grammatical system gets into the brain of a child (ontogeny) and how performance influences and changes any grammatical system (phylogeny) (Fischer 2007: 56–58).

may have judged the OE system according to their German standards and unjustifiably employed a particular categorization without being aware of differences which might exist in the two languages (McColl Millar 2000a: 309).

3.2.1.2 The article as a necessity

One of the most essential ‘early’ works on the English article system is Christophersen’s 1939 monograph *The articles: a study of their theory and use in English*. This book is a reaction to an earlier comment by Gardiner:

It is sometimes said that such relatively insignificant words [i.e. as the articles] are grammatical tools. But the function of tools is to achieve some specific end. That is precisely what, in many cases, the article does not do, or at all events does only in a very slight and uncertain degree. Often it is mere useless ballast, a habit or mannerism accepted by an entire speaking community [...] the accumulation of old rubbish is so easy. (Gardiner 1932: 47)

Opposing Gardiner’s “useless ballast” claim, Christophersen aims to show that the modern article system is functional and necessary to the smooth running of English as a language. Essentially, Christophersen (1939: 20) suggests that languages develop definite articles when they shift along the typological continuum from synthetic to analytic (see Jespersen’s cycle 1922: 319–321); changing from intricate complexity (complex inflectional system) to greater simplicity (loss of inflections). Also, several other scholars assume that the loss of nominal morphology has led to the rise of the article system (e.g. Behaghel 1923; Giusti 1993; Holmberg 1993). The decay of OE inflections made it necessary to find new means of expressing various relations of the noun.

It is well known that the case and gender system broke down from Old English to Middle English. Mainly, it was phonological change – main stress became initial – that ‘forced’ the restructuring of morphology simply by eroding distinctions. Phonological development, in the beginning unrelated to morphology, led to the development of a more analytic language. OE words of more than one syllable were ultimately stressed on their first syllable. The heavy stressing on the first syllable of practically all words had a far-reaching effect on the development of the language. The vowels of the final syllables began to be reduced to a uniform schwa sound as early as the 10th century leading to phonetic ambiguities within the paradigms. Many inflections were falling together so that in most instances

morphosyntactic categories such as case and gender were no longer expressed unambiguously.⁵⁰

Although Old English had a rich case morphology and although the endings of the cases varied with different noun declensions, most of the endings were already ambiguous in Old English so that its morphology was relatively inexpressive (Lass 1992: 105). It was rare for a single noun form to be marked for gender, number and case uniquely (not so for determinatives and pronouns). Such a situation led to analogical remodeling; some *u*- stems and *i*- stems took on masculine *a*- stem genitive singular in *-es* etc. The decay of the OE inflectional system resulted in the further collapse of weak vowels into /-ə/ (schwa) and the merger of final /m/ and /n/ in weak syllables. The disappearance of the final vowels started in the North and was completed by the middle of the 13th century, while in Kent the old inflectional forms were preserved in part as late as the first half of the 14th century. Also the gender system changed. In the OE grammatical gender system (similar to that of Modern German and French) every noun belongs to a particular class, which does not necessarily correspond to sexual gender in the real world. As a result of the vowel leveling in the OE endings, grammatical gender ceases to exist in the course of late Old English and early Middle English.⁵¹

The reasons for the breakdown of the inflectional system are diverse and will not be dealt with in detail. According to Hogg (1992: 10) these shifts were not caused by the Norman conquest but are the product of a long term trend in the history of the language. Some scholars believe that the leveling of the case endings was promoted by the increasing fixity of OE word order and the appearance of new periphrastic forms (Mustanoja 1960: 67–68). Fischer, who refers to O'Donnell and Todd (1980: 47–48), suggests that the Viking settlements in the Danelaw had an influence due to a process of pidginization which led to the loss of morphological structure and the development of a more analytic language (Fischer

50 Fischer (1992) agrees with the idea that initial stress must have played a role, as it contributed to the neutralization of vowel quantities. However, she points out that it cannot have been a decisive factor, when one considers the fact that other Germanic (stress initial) languages did not all lose their inflections.

51 The process again began in the North. In some Northumbrian texts it is noticeable in the second half of the 10th century. In the South, excluding Kent, grammatical gender disappears in the course of the late 11th, 12th and 13th centuries. By around 1200 the old system is in considerable disrepair in most dialects, and with Kent being the exception the shift to natural gender was pretty well complete by the end of the century. The changeover does, however, show a certain disorderliness; as late as the thirteenth century, the West Midland dialect preserves some traces of the old genders in non-sex items where the marked determiners were still distinctive: e.g. *'as-sailedē þen toun and wonne him'* (Mustanoja 1960: 43–45).

1992: 208). It is best to assume that the breakdown of nominal morphology was multi-causal. In any case it affected the complete language system in a space of three to five generations (Ackles 1997: 32).

3.2.1.3 Loss of inflectional morphology: disappearance of gender and case as a reason for article emergence

The question is whether the loss of the inflectional system led to the emergence of the articles. Holmberg (1993) observes a complementary distribution between case morphology and articles in European languages. On the one hand, many languages without articles (Latin, the Old Germanic dialects, and most Slavic and Finno-Ugric languages) have a rich system of case morphology. On the other hand, languages that have a rather poor system of case morphology (Celtic and most of the Romance and modern Germanic dialects) have lexical determiners. Also Giusti (1993) claims that all languages with articles only develop them when they are losing or weakening case morphology. It is therefore possible that, from Old English to Middle English, the article somehow ‘had to’ develop to identify the case information which was no longer visible on the noun (Philippi 1997: 63).

However, there are several counterarguments to the hypothesis just mentioned. First of all, typologically it is not necessarily the case that the articles are superfluous in a language that has case morphology. For example, one finds definite articles as well as rich case morphology in Ancient Greek. Languages like Greek or the North Germanic languages developed articles before they shifted along the synthetic to analytic continuum. In cases like German, case is still realized on the article, which is why McColl Millar concludes that “[t]here cannot be the one-to-one correspondence [...] between grammatical ‘simplification’ and the growth of an article, even if we have the suspicion that just such ‘simplification’ does encourage the development of an article system in a wide range of languages” (McColl Millar 2000b: 285). Second, there are also many languages (e.g. Farsi) which have developed no article, even though they lost case and gender systems (Stark, Leiss and Abraham 2007). Thus, it is not correct that languages without case morphology necessarily have articles. Chinese is another good counter example. Thirdly, the loss of case morphology can be compensated in different ways without using an article. It is well known that in Dutch or English prepositions have taken over functions of case markers (Philippi 1997: 63). As a conclusion, the ‘inflectional loss’ hypothesis must be criticized, mostly due to the fact that many counterexamples can be found typologically and because the argumentation is not very detailed.

3.2.1.4 Weak and strong adjectives

Another hypothesis, which specifies the earlier ‘decay of inflections’ proposal links the rise of the definite article to the weak form of the adjective (Mustanoja 1960: 232; Brunner 1962; Fischer 2000). Some scholars observed that in [DEM+ADJ+N] combinations, *se* is almost always used in connection with the weak adjective (Flamme 1885; Philippsen 1887; Wülfing 1894[1901]).

In Old English, adjectives belonged to two declensions: the ‘weak’ and the ‘strong’ declension. The declension of an adjective in a given context was syntactically determined. Broadly speaking, if the adjective was in a definite NP then the weak declension was used, elsewhere the strong one was used.

Tab. 15: Strong and weak adjectives in Old English (Fischer 2000: 159)

	strong adjectives			weak adjectives		
	masc	neut	fem	masc	neut	fem
nom.sg	-	-	<i>-/u</i>	<i>-a</i>	<i>-e</i>	<i>-e</i>
acc.sg	<i>-ne</i>	-	<i>-e</i>	<i>-an-</i>	<i>-e</i>	<i>-an</i>
gen.sg	<i>-es</i>	<i>-es</i>	<i>-re</i>	<i>-an</i>	<i>-an</i>	<i>-an</i>
dat.sg	<i>-um</i>	<i>-um</i>	<i>-re</i>	<i>-an</i>	<i>-an</i>	<i>-an</i>
nom.pl	<i>-e</i>	<i>-/u</i>	<i>-a/-e</i>	<i>-an</i>	<i>-an</i>	<i>-an</i>
acc.pl	<i>-e</i>	<i>-/u</i>	<i>-a/-e</i>	<i>-an</i>	<i>-an</i>	<i>-an</i>
gen.pl	<i>-ra</i>	<i>-ra</i>	<i>-ra</i>	<i>-ra/-ena</i>	<i>-ra/-ena</i>	<i>-ra/-ena</i>
dat.pl	<i>-um</i>	<i>-um</i>	<i>-um</i>	<i>-um</i>	<i>-um</i>	<i>-um</i>

An attributive adjective was declined weak if preceded by a demonstrative (*se*, *þes*) or by a possessive (e.g. *min*, *his*), but strong without one of these elements (Mitchell 1985: 51).

How did this regularity come about and why should it be responsible for article emergence? In Proto-Germanic the weak adjectival declension alone, without demonstrative or possessive, could signal definiteness. However, according to Philippi, this changed in the course of time:

Weak adjectives were formed by adding a demonstrative suffix *en/on* to mark definiteness and substantiation. In the course of time, however, the demonstrative force of the suffix eroded and was no longer sufficient to indicate the demonstrative character of the adjective. Therefore the need for a new reference marker arose. The East and West Gmc languages

used the demonstrative pronoun *sa/thata/so* which was realized in pre-adjectival position. (Philippi 1997: 63)

In other words, in earlier stages the weak adjectives had some demonstrative force. Later on, in Old English, the demonstrative needs to be present to “support the teetering weak adjective as determiner system [...] in order to make certain that there was deixis in the expression” (McColl Millar 2000b: 278). The strong form of the adjective seems to have been neutral in Pre Old English. Later on, contrasting the weak form, the strong form came to be associated with the indefinite. As, for example in *blind man* ‘(a) blind man’ vs. *se blinda man* ‘the/that blind man’ where *blind* carries the masculine nominative singular *-a* ending of the weak declension (McColl Millar 2000b: 278).

One argument against this proposal is that the loss of the weak/strong adjective distinction did not prompt the emergence of an article in other languages, for instance in Russian (Abraham 1997; Philippi 1997). Additionally, the hypothesis is only a valid one if the pattern [DEM+ADJ_{weak}+N]_{NP} in definite cases and [ADJ_{strong}+N]_{NP} in indefinite cases is applied in the vast majority of cases. It remains to be seen whether definite contexts are always indicated overtly by the use of *se*. If so, is it really the case that always the weak adjective ending is used? Is the strong adjective declension always used in indefinite contexts? Mitchell lists some examples where a demonstrative is used with strongly inflected adjectives. However, the real existence of the pattern is doubtful because many of the attested examples involve the possibility of an *-um/-an* confusion in the dative singular masculine or neuter (Mitchell 1985: §114–115; 119). Still, Mitchell concludes that some examples of [ADJ_{weak}+N]_{NP} cannot be explained by dative confusion in the plural and singular and have to be taken seriously (Mitchell 1985: §116–117). In any case, it will be necessary to check the frequency of any ‘exceptions’ in prose and analyze if those cases can safely be dismissed as archaisms, scribal errors or analogical confusion, as is suggested in the literature. All those questions will be investigated in chapter 5.

Thirdly, the arguments given above rely on an assumption that I consider to be flawed. It has been claimed that from Pre Old English to Old English the demonstrative suddenly had to be used together with the weak adjective because the deictic *kraft* of the weak adjective suffix eroded. This is given as the explanation why the use of the demonstrative became obligatory together with the weak adjective. As my empirical data analysis will show, however, I was always able to successfully distinguish between the strong and the weak endings in my texts (following the declension in Table 15). If one can still distinguish between weak and strong, and if we assume that strong indicates indefiniteness, why should we assume that the weak adjective ending lost its definite marking capacity at that

early stage? For what reason should we assume that the deictic meaning of the weak adjective suffix suddenly eroded, if it is still identifiable and distinguishable from the strong one? To claim that this simply happened is an easy way out. Why should one ending have lost the indication of definiteness and the other not? Obviously the argument would be valid later on, when we have a complete breakdown of declensions and cannot distinguish between weak and strong any longer. But the preference to combine a demonstrative with a weak adjective can already be observed at a stage where we still can distinguish weak and strong adjectives. This implies double marking but not a shift in definiteness marking from one element to the other. In other words, the breakdown of the weak/strong adjective declension took place too late to justify the proposed hypothesis.⁵²

Rather, I agree with linguists such as Strang (1970: 301), who argues that due to the syncretism of several endings in the weak paradigm, case and gender could no longer be distinguished sufficiently, so the demonstrative was first needed to disambiguate case and gender. As the demonstrative paradigm was still more prominent and also automatically marks a noun phrase as definite, definiteness marking finally shifted from the weak adjective paradigm to the demonstrative (after a potential phase of double marking). For Strang this distinction serves a function as it exercises a 'principle of economy'. The strong adjective ending is still useful when there is no other defining element because it is still distinctive of case and gender. In the weak adjective declension, endings are not that distinctive any longer so that case and gender need to be indicated by the preceding demonstrative. It is claimed that this functional interdependence of the demonstrative and the adjective ending explains the rise of the article and the decline of the weak/strong distinction: the increasing presence of the one (the determinative) obviates the need for the other (Fischer 2000: 160).

Note that frequency may play a crucial role here. Obviously, [DEM+ADJ]_{weak+N}_{NP} combinations exist but are presumably rarer than for example [POSS+N]_{NP} or [DEM+N]_{NP} (see chapter 5). Even if a speaker becomes aware of the strong link between the demonstrative and the weak adjective, s/he does not necessarily need to apply this to all other instances where the NP occurs without such an adjective, especially when we find many NPs with surface structures which lack adjectives.

⁵² This objection is also supported by McColl Millar (200b: 284).

3.2.1.5 A language contact scenario

Another hypothesis is that the definite article developed due to language contact. McColl Millar (2000a,b) closely links the development of the definite article to the contact with Old Norse. He argues that the grammatical system was not so much altered by the semantic drift of *se* but by the development of the distal demonstrative *þæt*, which was influenced by contact with the Scandinavian system (McColl Millar 2000a: 331). Based on a detailed analysis of all demonstrative forms in eleven selected texts from ‘the Scandinavian transition period’, he tries to show that the Norse influence caused the direct transfer of semantic and formal North Germanic structures for definiteness marking.

It is well known that English developed into a tripartite system, similar to all other modern West Germanic dialects (except German)⁵³ with a discrete article ‘the’, a simple demonstrative (with distal meaning ‘that’), and a compound demonstrative (with proximal meaning ‘this’). In English, this tripartite split took place when some languages already had a split system of distal demonstrative pronouns and articles. For example, the Celtic languages, French and the Scandinavian dialects had already developed such a system earlier (Calder 1923[1990]: §117; Wessen 1958: §128; Iversen 1973: §148–149). As a result the linguistic system of these languages might have influenced the English system due to contact. For McColl Millar (2000b: 302–303) the Celtic languages⁵⁴ and French⁵⁵ do not qualify to have brought about the change, but the contact with Norse does.

Next to the simple demonstrative *sa-su-þat*, Old Norse had the following compound demonstrative paradigm: *sja/þessi-sja/þessi-þetta*. Additionally, it had an article-like element *inn-in-it*, which could occur independently as a pre-modifier, but an enclitic usage was more common. This threefold situation influenced the development of the English definite article and should be analyzed as a mediated form of *koinëisation*. The linguistic contact between Old English and Old Norse gave rise to a *koinë* (McColl Millar 2000a: 60). *Koinë* is “a language or dialect where a harmonization (or leveling) of grammar and phonology for the

53 Which employs a simple demonstrative *der, die, das* and a compound *dies-* (McColl Millar 2000a: 306–308).

54 It is a disputed question how much influence the Celtic language had on English (for the ‘Celtic Hypothesis’ see Filpulla, Klemola and Pitkänen 2002 and Filpulla, Kemula and Paulasto 2008) but for McColl Millar the contact with the Celtic language did not influence the shift towards the article system.

55 French has a preposed definite article but as English had no substantial contact with French before 1066 and the development was well under way before this date, any influence seems to be unlikely.

sake of mutual comprehension has taken place between speakers of different varieties of essentially the same dialect continuum” (Siegel 1985: 358).

As there was a peaceful social co-existence between the speakers of Old Norse and Old English, the Scandinavian bilingual speakers also carried over linguistic material from their language. Although they could have carried over their own native mode of marking definiteness (postponed clitic), they went for another option, namely to “use the building blocks of the new language to create essentially the same semantic distinction without using the same morphological materials” (McColl Millar 2000b: 303). The phonologically distinct OE element *se* was reinterpreted. The gradual simplification of the demonstrative’s morphological form supported this fact. Since then, *þæt* was the only element that remained phonologically distinct and could be stressed more easily, it is not surprising that it became associated with pure distal meaning. Finally, the *koinē* which had developed in the North was imported to the Midland dialects because certain *koinē* features helped to dissolve several linguistic ambiguities. In the end, these dialect speakers would transfer material to the South (McColl Millar 2000a: 337).

How sound is McColl Millar’s argumentation? It is true that contact between two languages can influence one or both contact languages. Research has shown that not only lexical entries are taken over but even morphosyntactic features (Thomason 2001; Heine 2005). It is well known that the English language not only borrowed vocabulary from Old Norse but also function words (e.g. *she*). In general, the proposal that a (tripartite) system emerged as a consequence of the prior existence of a tripartite model in the other language, is a very attractive one. It employs the idea that what speakers do largely relies on the overall systemic nature of their language. A speaker might become aware of a certain structure, take it as a model and reinterpret another (perhaps ambiguous) structure according to that model or, as in the given substratum situation, use his native (Scandinavian) construction and fill it with L2 (English) lexical forms.

What is interesting about McColl Millar’s hypothesis is that he draws attention to the fact that linguistic change cannot occur only because there is an overwhelming communicative need for it but because of other factors, in his opinion external and systemic ones, which push the change into a certain direction. In his discussion he quotes Samuels, who – already in 1969 – links the articles’ development to inner-systemic, analogical pressures.

The evolution of a new system of determiners in which, firstly, the various forms of the Old English demonstratives *se* and *þes* were re-aligned to the pattern *the/this/that*, and secondly, as a result of systemic pressure to complete the pattern, the use of nouns without determiners decreased, the indefinite article *a* was differentiated from *one*, and the uses of both *a* and *one* were extended. (Samuels 1969: 396)

Indeed, linguistic change mostly does not happen for the sake of clarity on the listener's side or to improve communication. It is necessary to look for additional factors which might influence a change. Those changes can be based on available patterns elsewhere in the grammar, which suddenly get employed analogously. This thought will also be taken up in the next section (3.2.2) where functional explanations for article development will be discussed.

Nevertheless, McColl Millar's line of argumentation is slightly problematic. Firstly, several researchers believe that the Viking demographic presence neither was that enduring nor were the Northern dialects spoken long enough for such heavy influence (Thomason and Kaufman 1988: §9.8.6.3).⁵⁶ Secondly, it has been suggested that the tripartite split (and particular the enclitic defining particle) developed much later in Scandinavia – too late to influence the OE development (Skautrup 1944: §22). Thirdly, McColl Millar's work displays some methodological weaknesses. Although he manages to demonstrate the breakdown of the inherited case- and gender-based paradigms (2000a: 11), which may have created a system open to change and open to the employment of external linguistic structures in order to fight ambiguity, he has a hard time presenting convincing textual evidence for his proposed spread of article features from the North (where the Scandinavian dialects were present) down to the South. Here he relies on the work of others to argue for the plausibility of such an influence (Ekwall 1963: 54–67; Samuels 1989b). Like many others before, he demonstrates that southern texts are more conservative than the northern ones and that inflected forms linger on in the South, but he is not able to trace the trickling effect from the North to the South, which admittedly is largely impossible due to the shortage of the OE materials. Migration patterns have been discussed by others (Samuels 1969; Lass 1969; Poussa 1982) but the debate remains undecided why and how exactly a relatively low status northern dialect affects the dialect in the South in its determination system? To conclude, I believe that a language contact scenario is not unlikely, and as language change is always multi-causal it might have influenced the process to a certain extent but, as always, further conclusive research is definitely needed to support or falsify the *koinē* scenario.

⁵⁶ Admittedly, later work (e.g. Hadley and Richards 2000) argues for a longer period of influence (against Thomason and Kaufman 1988).

3.2.2 Functionalist views: article development as a grammaticalization phenomenon

In the functionalist literature, the development of the English articles has been interpreted as a prototypical case of grammaticalization. For example, Himmelmann (1997) postulates the following universal grammaticalization path for deictic particles:

Deictic Particle + Categorial Noun > Demonstrative Pronoun > Demonstrative Determiner > Weakly Demonstrative Definite Determiner > Definite Article > Affixal Article > Noun Marker (Himmelmann 1997: 23)

In a similar vein, the following semantic clines for the indefinite articles have been postulated:

quantification > referentiality/denotation > genericity /connotation (Givón 1981:50)

(i) numeral > (ii) presentative marker > (iii) specific indefinite marker > (iv) non-specific indefinite marker > (v) generalized article (Heine and Kuteva 2006)

In the case of English, as has been mentioned repeatedly, the demonstrative pronoun *se* grammaticalized and stalled as the definite article *the*. Similarly, the quantificational numeral *ān* developed into the indefinite article. In Modern English both elements are not only used to mark referential NPs but sometimes also non-referential (e.g. generic) ones (see section 2.2). Before the clines above can be discussed any further, a few words about grammaticalization are necessary.

3.2.2.1 Grammaticalization: definitions and parameters

The term ‘grammaticalization’ was introduced by Meillet as “le passage d’un mot autonome au rôle d’élément grammatical” (1912: 131) – the change of an independent entity into the status of a grammatical element. Words with full lexical content turn into form words, which fulfill various grammatical functions. Not only lexical elements can undergo grammaticalization but grammatical elements can grammaticalize too, thereby becoming even more grammatical (Kuryłowicz 1965: 69).

Since Meillet’s definition, research on grammaticalization has evolved and today we find rather narrow as well as very loose definitions of grammaticalization. For example, Heine and Reh offer a very specific definition and view gram-

maticalization as “an evolution whereby linguistic units lose in semantic complexity, pragmatic significance, syntactic freedom and phonetic substance” (Heine and Reh 1984: 15). Traugott defines grammaticalization as “[t]he process whereby lexical material in highly constrained pragmatic and morphosyntactic contexts is assigned grammatical function, and, once grammatical, is assigned increasingly grammatical, operator-like function” (Traugott 2003: 645). In contrast, Lehmann and others define the grammaticalization of a linguistic sign as “a process in which it loses autonomy by becoming more subject to constraints of the linguistic system” (Lehmann 2004: 155). Croft even offers an extremely loose definition and understands grammaticalization as “the process by which grammar is created” (Croft 2006: 366).

Recent publications on grammaticalization are numerous (e.g. Davidse, Vandelanotte and Cuyckens 2010; Narrog and Heine 2011; Davidse et al. 2012; Stathi, Gehweiler and König 2012; Norde, Beijering and Lenz 2013; von Mengden and Horst 2014).⁵⁷ Broadly speaking, one can make out two camps, which highlight different processes that play a role in grammaticalization: one camp focuses on reduction and increased dependency during grammaticalization (e.g. Lehmann 1995[1982]; Haspelmath 2004), while the other camp highlights the expansion of semantic-pragmatic and collocation range (e.g. Himmelmann 2004; Traugott 2011).

About thirty years ago, Lehmann (1985) tried to set up parameters by which the degree of grammaticalization could be measured. Those parameters are based on three major aspects, which are relevant for the measuring of the dependency of a linguistic form: weight, cohesion and variability of the sign. From this perspective, the degree of grammaticalization depends on how autonomous the sign still is. The lexical form is more independent and more complex than the shorter, simpler and bound grammatical form (Lehmann 1985: 306). On the one hand, grammaticalization affects the semantic properties of a linguistic element; on the other hand, morphosyntactic properties are affected. In the semantic realm, lexical-referential meaning develops into systematic-grammatical meaning. The process of attrition often leads to fewer semantic features of an item. The weight or substance of a lexical item is reduced through phonetic and semantic erosion. Formally, the element loses its syntactic independence and its morphological distinctiveness. The more grammaticalized a linguistic element is, the more its bond-ness increases (e.g. it may fuse with other elements; agglutination, cliticization

⁵⁷ Also several formalist generative scholars have dealt with grammaticalization, e.g. Roberts and Roussou (2003); van Gelderen (2004, 2007), but their ideas will be discussed in the next section (3.2.3).

and fusion are developmental steps here). Also, syntagmatic and paradigmatic variability is lost (i.e. the grammaticalizing element becomes fixed in position and sometimes joins an existing paradigm of elements which fulfill a particular grammatical function). Moreover, the element becomes increasingly obligatory (Fischer 2007: 118; Heine and Reh 1984).⁵⁸

Another researcher who profoundly influenced grammaticalization research is Traugott (1982, 2003). In her work on grammaticalization, she attempted to establish characteristics for grammaticalization different from those of Lehmann. Her main goal was to identify the semantic-pragmatic shifts that initiate grammaticalization processes. Traugott assumes that shifts in the semantic realm, which are motivated through pragmatics, trigger the grammaticalization process. Like many other functionalists, she distinguishes three functional-semantic components in language. First, there are 'propositional' elements which a language uses to express truth-conditional relations. The propositional component involves the resources of the language which make it possible to talk about something. Next, there are 'textual' markers which keep discourse coherent (e.g. connectives, anaphoric and cataphoric pronouns, complementizers,...). Finally, there are 'expressive' elements in language which are used to express personal attitudes to the topic itself and to other participants in the speech situation (e.g. honorifics or turn taking markers) (Traugott 1982: 248).

Traugott formulated hypotheses on shifts between these components. The first hypothesis (A) suggests that if a shift in meaning takes place in the grammaticalization process, this shift is likely to reach a more 'personal' level in communication.

Hypothesis A. If a meaning-shift in the process of grammaticalization occurs within a component, it is more likely to involve "less personal to more personal" than the reverse. (Traugott 1982: 253)

For example, the OE *butan* 'on the outside' does not reflect the opinion of the speaker but expresses mere location, whereas the use of the textual connective *but*, which *butan* developed into, indicates the speaker's attitude.

The second Hypothesis (B) postulates another unidirectionality:

Hypothesis B. If there occurs a meaning-shift which, in the process of grammaticalization, entails shifts from one functional-semantic component to another, then such a shift is more

58 There has been severe criticism of the parameters, e.g. Janda and Joseph (2003). For other ways of measuring strong or weak grammaticalization see Heine and Reh (1984 ch. 1.1) or Bybee and Dahl (1989: 59–61).

likely to be from propositional through contextual to expressive than in the reverse direction. (Traugott 1982: 256)

Also Hopper and Martin take up this idea and draw attention to the increase of interpersonal contextualization:

One way in which grammaticalization is to be comprehended is as an evolution from lesser to greater contextualization, or from relative textual autonomy to relative textual dependence. The more dependent a form is, of course, the more “personal” it is, i.e. the more adaptable to the speaker’s goals, and the more negotiable its meanings. (Hopper and Martin 1987: 302)

Later on, Traugott reformulated her shift from propositional to textual to expressive meaning, describing it as a tendency towards ‘subjectification’ and ‘inter-subjectification’. Subjectification is “the development of a grammatically identifiable expression of speaker belief or speaker attitude to what is said” (Traugott 1995: 32) and “arise[s] out of the cognitive and communicative pragmatics of speaker-hearer interactions and discourse practices” (Traugott 2003: 634). Thus her new shift looks as follows: ‘non-subjective > subjective > intersubjective’ (Traugott 1995).⁵⁹ So in contrast to the traditional semantic bleaching model, Traugott postulates a loss-and-gain-model (drawing on Sweetser 1988). Grammaticalization has to deal with meaning-shift, where an element might lose part of its propositional meaning but at the same time can gain new pragmatic functions. Traugott’s ideas have been taken up by many researchers who investigate cases of subjectification and pragmaticalization as diachronic tendencies (e.g. Breban 2010; Athanasiadou, Canakis and Cornillie 2006; Davidse, Vandelanotte and Cuyckens 2010). Traugott also applied her ideas to the development of the English articles, a proposal which will be discussed in the next section (3.2.2.2).

Several important aspects of grammaticalization have not been mentioned so far. The first is the notion of synchronic layering which reflects the fact that the grammaticalized forms and their lexical sources occur side by side. The second is divergence, the process when grammaticalized and non-grammaticalized forms of the same origin go their own separate ways and do not influence each other anymore. Thirdly, persistence points to the fact that one can find traces of the original lexical meaning in the grammaticalized forms (Hopper 1991). Finally, there is a performance and processing aspect to grammaticalization. The grammaticalized elements appear to be more productive in the grammars containing them than their lexical donors, with the result that the grammaticalized forms are

59 Also see Traugott and Dasher (2002) for their ‘Invited Inferencing Theory’.

more frequent. High frequency is a result of the higher number of constructions and contexts in which a grammaticalized form (i.e. ‘gram’) can be used (Fischer 2007: 119; Hawkins 2004: 80). Traugott and Trousdale point out that collocational type-expansion is the logical result of several grammaticalization processes.

If we focus not on the reduction but on the consequences of that reduction, we can expect that there will be increase in host-classes: a form that is reduced semantically and has paradigmatic functions will also be used more token frequently and in more contexts. It will also be available for a larger range of syntactic uses, and therefore its syntactic contexts may expand. (Traugott and Trousdale 2013: 109)

As can be seen by the large variety of processes which typically affect form and meaning together, grammaticalization is a perfect example for the interdependency of the linguistic system. In a fascinating way it clearly shows how strongly connected morphosyntax, discourse-pragmatics, semantics and phonology are and how much all of them seem to be subject to general principles and tendencies.

Note that grammaticalization has been interpreted in many different ways in the literature. On the one hand, the term is used for a specific observable diachronic phenomenon in a particular language. A particular entity undergoes a gradual, formal as well as semantic change. In doing so it is said to follow a ‘unidirectional’ development along certain “paths” (Bybee 2003b), which have also been termed “clines” (Halliday 1961; Hopper and Traugott 2003; Andersen 2001), “channels” (Lehmann 1995[1982]) or “chains” (Heine, Claudi and Hünemeyer 1991). Evidence for various developmental paths has been accumulated (Heine and Kuteva 2002). Campbell (1998: 239–238) lists about thirty instances of grammaticalization, three of which are listed below:

- a) Demonstrative pronoun > Definite article
- b) Noun > Grammatical gender (‘man, male, boy’ > masculine; or ‘woman, female, girl’ > feminine).
- c) Numeral ‘one’ > Indefinite article

On the other hand, grammaticalization is also used to refer to grammaticalization theory, which aims to ‘explain’ language change and the development of grammar. Especially among functionalists and cognitivists, it has become a widely-used theory within the last twenty-five years. Some scholars interpret grammaticalization as a distinct *suis generis* type of phenomenon and an explanatory mechanism, which independently causes language change – comparable to drift or ease of effort (Heine and Kuteva 2002: 4) but in this book it will be suggested

that grammaticalization is only an epiphenomenon; an umbrella term for a bundle of processes driven by several speaker-internal, cognitive mechanisms (see section 4.2.3 and chapter 6).⁶⁰

3.2.2.2 Down the cline: article emergence as a classic case of grammaticalization

Several researchers have dealt with the grammaticalization of the English articles in detail. On the one hand, article development has been discussed from a typological perspective (Greenberg 1978; Lehmann 1995[1982]; Himmelmann 1997; Lyons 1999; Heine and Kuteva 2006; Schroeder 2006; see section 4.2.2.1). On the other hand, the focus has been on discourse-pragmatic shifts which are involved in the process (Givón 1981; Traugott 1982, 2003; Hopper and Martin 1987).

Typologically, it is mostly a demonstrative morpheme with deictic meaning which grammaticalizes into the definite article. As Lyons elaborates “usually a deictically unmarked demonstrative, or a non-proximal or non-first-person one [...] provides the source of a definite article. One consequence of this is that in many languages the definite article is segmentally identical or very similar to one of the demonstratives (though differing in stress)” (Lyons 1999: 116). Already in 1978, Greenberg postulates the following typological cline for definite articles:

Stage 0 (demonstrative) > Stage 1 (definite article) > Stage 2 (specific article) > Stage 3 (noun marker)

For Greenberg, a discourse deictic turns into a definite article (Stage 1) when the form “becomes compulsory and has spread to the point at which it means ‘identified’ in general, thus including typically things known from context, general knowledge, or as with ‘the sun’ in non-scientific discourse, identified because it is the only member of its class” (Greenberg 1978: 62).

A ‘specific’ Stage 2 article is used for both definite determination and non-definite specific uses. Specific, opposed to generic, refers to the use of an article in contexts in which a speaker refers to a specific but unidentified item, in other words, if there is presupposition of reference (Greenberg 1978: 62). Stage 2 articles are no longer restricted to semantically definite contexts but also spread to so-called indefinite specific contexts. In some languages such contexts would rather

⁶⁰ In formalist models grammaticalization is also not credited with theory-relevant autonomy, and cases of grammaticalization are considered regular cases of reanalysis, which is considered to be one of the most important mechanisms responsible for syntactic change (Roberts and Rousso 2003; see sections 3.2.3 and 4.2.4).

be marked by indefinite articles (de Mulder and Carlier 2011: 532). The progressive spread to new contexts eventually leads to a Stage 3 article which is a mere ‘empty’ noun marker; a sign of nominality or gender on the large majority of common nouns with no synchronic connection to definiteness or specificity (Greenberg 1978: 69; de Mulder and Carlier 2011: 525).

Also Lehmann (1995[1982]) discusses how demonstratives grammaticalize into definite articles. He focuses on the semantic and morphosyntactic features of the morpheme in its respective stages. At Stage 0, the free demonstrative pronoun in its full form generally contains two semantic and one syntactic component. With regards to its semantic side, the pronoun contains a demonstrative component which embodies definiteness and a pointing gesture and a deictic component which directs the attention to something located in regard to the speech situation. Additionally, there is a formal categorical component, which makes the pronoun either syntactically autonomous (functioning as a head) or dependent. So the demonstrative can either head its own NP or it can be attached to a noun attributively (Lehmann 1995[1982]: 37).

For Lehmann, the bleaching of the deictic component is the first step of grammaticalization towards Stage 1. As an example he lists the extreme reduction of Vulgar Latin **ecce hoc illac* ‘look this over there’ > French *cela* ‘that’ > *ca* ‘it’ (Lehmann 1995[1982]: 38). As a next step, the semantically weakened demonstrative pronoun then might develop along two principal grammaticalization clines, corresponding to whether the categorical component is a dependent or the head: either it develops into a ‘definite determiner’ (when adnominal) or into a personal pronoun (as head). Lehmann defines a definite determiner as

an adnominal demonstrative pronoun which is deictically neutral and therefore mainly used for anaphoric purposes. Examples beside Late Latin *ille*, are Gothic *sa*, *so*, *þata*, OE *se*, *seo*, *þæt* and Homeric *ho*, *he*, *to* all deriving from PIE **so*, *sa*, *tod*. Persian *an* and Japanese *sono* appear to be well on their way towards this stage (Lehmann 1995[1982]: 38).

Afterwards, this definite determiner reduces to mere definiteness and will result in a definite article. One gets French *le*, *la*; Old High German *ther*, *thiu*, *thaz*; English *the* or Attic *ho*, *he*, *to* (Lehmann 1995[1982]: 38; Greenberg 1978, Givón 1978). The article might also come to be agglutinated to the noun, a phenomenon which occurs in Rumanian, Swedish, Danish, Basque, Ijo (Kwa), Koyo (Kru) and several Yuman languages. Finally, further semantic weakening may even reduce definiteness to marking nominalization (Greenberg’s Stage 3). The element then is a nominalizer which simply signals that the words it gets attached to are nouns (e.g. in the Abkhaz or Dagbani language) (Lehmann 1995[1982]: 38–39). Note that even if a language employs a Stage 3 article as a noun or noun phrase marker, it

is frequently the case that there is “a residual domain of article-less nouns: the article may not be used in combination with nouns determined intrinsically (proper nouns), by their anchorage within the speech situation (vocative), or by another determiner (possessives, demonstratives, quantifiers, etc.)” (de Mulder and Carlier 2011: 525).

Hawkins focuses on the semantic stages in the grammaticalization process of the definite article. Using his theory of definiteness (1978, 1991) (see section 2.2), he presents four major semantic stages in the languages of the world in which demonstratives develop into definite articles by expanding their semantic and pragmatic range. In Hawkins’ Stage 1, the deictic restriction of the demonstrative is abandoned. The contrast between entities near and far from the speaker is no longer expressed. The notion of identifiability of referents is “now defined relative to the whole (visible) situation or the whole previous text (within memory), and uniqueness (more generally, inclusive reference)” (Hawkins 2004: 84). At this stage, definite articles are anaphoric reference markers (reference to elements mentioned in the previous text or to elements which are part of the immediate situation).

In his 2nd stage, article usage expands in two directions: from visible to non-visible and larger situations (compare *mind the step* vs. *the king has abdicated*) and from anaphoric references based on previous mention to general-knowledge-based inferences and stereotypic frames. In Stage 3, article usage is extended to generic references

that signal inclusiveness only, with little or no pragmatic delimitation (*the lion is a mammal, the Italians eat pizza*). The level of accessibility that is required at the end of Stage 2 has become so weak that it can be abandoned and the definite article can be used with semantic and truth-conditional content only. At the same time, pragmatic conditions of appropriateness still apply to NPs that are not used generically, and hearers must disambiguate between generic and non-generic, find the P-set when this is required, and assign a pragmatically unrestricted inclusive interpretation when it is not (Hawkins 2004: 85).⁶¹

In other words, in the 3rd stage, pragmatic delimitation is abandoned and NPs are permitted to refer universally and generically. In a 4th stage, when the definite article is extended to specific indefinite references in addition to definiteness,

61 According to Hawkins, German has developed slightly further than English using the definite article with generic plurals contrasting English which does not. For example, a German sentence like *Er zieht den Rosen die Nelken vor* (‘he prefers the roses the carnations’) is *He prefers carnations to roses* in English. Generic plural usage is also much further extended in French: compare *Elle adore les romans policiers* (‘she adores the novels detective’) with *She adores detective stories*. (Lyons 1999:52; Hawkins 2004: 85)

“the definite article has abandoned uniqueness/inclusiveness, in certain uses, while maintaining the existence claim” (Hawkins 2004: 85). NPs with the definite article then only assert existence. The article not only marks identifiable references but also generic reference and purely existential claims. Finally, further extensions can be observed as the form loses all connections to definiteness when it only gets used for syntactic purposes like agreement or as a noun class marker (Hawkins 2004: 86). Generally, each stage keeps the previous stages’ usage but introduces more ambiguity and polysemy.

Similarly Schroeder distinguishes four universal stages in the gradual functional split between the numeral ‘one’ and the indefinite article which may take place in a language. In Stage 1, the numeral does not express indefiniteness but quantification although it might be used “as a lexical device to express the specificity of the referent of a noun phrase” (Schroeder 2006: 559). This is only a predecessor of the indefinite article, which Schroeder calls ‘emergent indefinite article’. He lists Russian as an example where the numeral *odin*_{nom.masc}, *odna*_{nom.fem}, *odno*_{nom.neut} is sometimes used to express the ‘specificity’ of a noun phrase. When used like this *odin* competes with certain adjectives (e.g. *kakoj-to* ‘a certain’) (Schroeder 2006: 559). The OE numeral *ān* can also be classified as this type.

In the 2nd stage, which Schroeder calls ‘pragmatic indefinite article’, an article is used with specific and indefinite noun phrases which fulfill special pragmatic functions. They are part of NPs representing nothing but new information or introducing pragmatically salient referents into the discourse. In English – according to Rissanen (1967) and others – this shift from Stage 1 to Stage 2 happened at the beginning of the ME period. In Stage 3, an indefinite article is used with all indefinite noun phrases irrespective of their pragmatic functions. This stage is called ‘referential indefinite article’ (Schroeder 2006: 559). In the last stage, an indefinite article is used with indefinite as well as with non-referential noun phrases. Schroeder calls this an ‘extended indefinite article’ and claims that English is an example for a language that has such a Stage 4 article since the indefinite article is used with indefinite noun phrases as well as with all non-referential NPs (Schroeder 2006: 559).⁶²

⁶² Givón points to “[t]he high incidence of unrelated languages independently developing ‘one’, ‘ones’, and ‘some’ as referential indefinite markers” (Givón 1981: 50). The development from quantificational element to indefinite article is attested in languages like German, Hungarian, Turkish, Persian, Mandarin, Neo-Aramaic but also various Amerindian and Austronesian languages; a typological preference which Givón finds striking and worthy of an explanation. He also claims that this development can be observed in Creole languages, which according to him shows “the human-universal nature of this feature” (Givón 1981: 35).

It is essential to understand that any shift on the clines is gradual and no shift is obligatory (Hopper and Traugott 1993: 39). Semantic and syntactic changes or contextual spread develop with a different pace in various languages. Already Greenberg elaborates on the gradual nature of the stages:

[T]here are instances of transitional phenomena such that certain languages are on the borderline between two stages. In some cases it is possible to see that a language is well advanced within a particular stage, while in other instances it is clear that it has only entered the stage recently. Hence the whole development is to be viewed as a single continuous process marked by certain decisive turning points. (Greenberg 1978: 61)

For Himmelmann (1997: 4) this also explains why languages differ in their article usage. Especially Stage 1 articles constitute an instable stage in the grammaticalization cline from pronoun (Stage 0) to noun marker (Stage 3).

In the literature, it has been argued that more attention should be paid to the pragmatic factors that trigger the grammaticalization process to understand the cline from pronoun to article. Especially Traugott (1982) has dealt with this aspect. As already mentioned in section 3.2.2.1, she suggests that if a shift in meaning takes place in the grammaticalization process, this shift is likely to be towards a more ‘personal’ level in communication (see Hypothesis A and B). She also identifies these shifts in article development.

The function of demonstratives is primarily to identify or index things in the world and relate them to the speaker’s point of view; the function of *the* is to signal that whatever is being talked about has already been referred to, or to treat it as if it were already salient in the hearer’s consciousness. It can also have an expressive meaning when associated with contrastive stress as in ‘the man around town’. (Traugott 1982: 250)

The development of the definite article represents the evolution of a grammatical marker with a textual function (anaphora and cataphora). This function was carried by *se*, *seo*, *þæt* in Old English. As *the* developed, the full demonstrative continued primarily to function as a marker which either establishes the speaker’s physical distance from objects in the situation outside the text (at the propositional level), or the speaker’s evaluative distance (at the expressive level) (Traugott 1982: 252). One witnesses a specialization of functions.⁶³

63 The source demonstrative at the beginning of the grammaticalization process is used exophorically or situationally referring to entities in the extralinguistic situation. This is the basic use which gives rise to endophoric or intralinguistic uses including the anaphoric use. In the exophoric use, where the referent is directly perceived in the physical surroundings but also in the anaphoric use where one can recall the referent from the preceding discourse, deictic information is redundant because the referent is immediately accessible. Therefore it is very likely

According to Traugott, the articles also show the shift from propositional through textual to the expressive component. The demonstrative and the article both have the textual function of anaphora. *That man* and *the man* can both refer back to some entity previously mentioned; but *the* has also acquired an expressive participant-oriented meaning, so that in a sentence like *The woman was walking down the street* at the beginning of a novel, where no situational context has been set up, the readers are invited to react as if the situation were in their consciousness. “In this sense [*the*] acquired an expressive function in addition to its cohesive one” (Traugott 1982: 252).

Traugott also discusses the indefinite article: while the OE numeral *ān* ‘one’ designates a distinction in number (singular vs. plural), the modern indefinite article *a/an* is already more personal as it “introduces fresh material to the hearer’s consciousness” (Traugott 1982: 250). “The indefinite article is paradigmatic of the rise of a grammatical marker the prime function of which is to indicate absence of anaphora, that is, absence of cohesiveness with a preceding text (it may, however, be cataphoric in some narratives, in that it arouses our expectation of what is to come)” (Traugott 1982: 252). Also Hopper and Martin (1987: 297) note that *ān* originally expressed a propositional meaning of singularity but developed into a marker with a text-organizing function. Responsible for the semantic bleaching is the high text frequency of ‘one’ to introduce referential arguments into discourse for the first time.

When a new referential argument is introduced for the first time into discourse, the speaker obviously does not expect the hearer to identify it by its unique reference. Rather the speaker first identifies it to the hearer by its *generic/connotative properties*, as *one member out of the many within the type*. This is a peculiar situation, where the speaker wishes to perform two seemingly conflicting tasks: (i) introduce a new argument as *referential/existing*; but (ii) identify it by its *generic/type* properties. The numeral ‘one’ – rather than other numerals – is uniquely fitting to perform such a complex, contradictory task. First, like all quantifiers it implies also ‘one out of many’, ‘one out of the group’ or ‘one out of the type’. It thus introduces the new argument into discourse as both existing/having referentiality, and as ‘member of type (x)’. (Givón 1981: 52 [original emphasis])

Quantifying expressions imply referentiality but not prior-acquaintance/familiarity. Because of that they are the only class of noun-modifiers which qualify for developing into a referential-indefinite marker (Givón 1981: 51).

that in such ‘bridging contexts’ (Evans and Wilkins 2000; Heine 2002), the deictic meaning component of the demonstrative will automatically bleach out, triggering the development of a pure article. This new definite article would first be restricted to these contexts and only spread to other contexts later on (Diessel 1999: 109–111; Lyons 1999: 161, 332).

If we relate some of these points to the criteria for articlehood set up in section 2.3, it can be stated that the demonstrative and the numeral, which embody a deictic and a quantificational notion lose these features through a process of ‘semantic bleaching/attrition’. Thus the grammaticalized forms fulfill the EXCLUSIVENESS criterion. The articles can also be used as sheer noun markers; which relates to the SYNTACTIC MOTIVATION ONLY criterion. Also, in English the definite and indefinite article involve less formal marking compared to the demonstrative and the numeral. This is not necessarily the case (e.g. Dutch, French, Italian where there is still gender and case marking on the article) but English *the* and *a* have fewer and more reduced segments than the original determinatives (generally a schwa vowel and reduced stress). This fulfils Lehmann’s criterion of ‘Phonological attrition’. Moreover, the former free choice items become more and more obligatory (‘Obligatorification’) and start to occupy a fixed slot (‘Fixation’). This relates to the criteria RELATIVE POSITION and OBLIGATORINESS. The fact that the former independent elements cannot occur without a head noun anymore, relates to the INDEPENDENCE criterion.

3.2.2.3 Reconsidering the functionalist proposals

When we compare the OE deictic demonstrative and the numeral and their elaborate declensions with the modern articles *the* and *a/an* which are monosyllabic markers, it is definitely true that most of Lehmann’s grammaticalization parameters (phonological reduction, semantic bleaching, obligatorification, fixation) can be applied to the observable diachronic development. However, several researchers have repeatedly attacked the idea that grammaticalization has explanatory power and should be used as a theory of language change.

One point of criticism is that often researchers do not discuss whether Lehmann’s parameters are all affected at the same time or one after the other? Which parameter will be affected first, which one later? Grammaticalization processes need a trigger. Is one of the parameters such a trigger (e.g. attrition) or is it a sheer consequence of some other causal mechanism? Certain properties and linguistic behaviors may feed each other, one increasing the likelihood of the other. Another question which is especially interesting for a constructional approach is how Lehmann’s parameters ‘Obligatorification’ and ‘Fixation’ interact and influence each other. Does fixation lead to the obligatorification of an element or vice versa?⁶⁴

⁶⁴ Moreover, it is a question of debate whether grammaticalization really is a so-called ‘unidirectional’ phenomenon. Various examples have been found which demonstrate some kind of

Additionally, many grammaticalization studies can be criticized for the fact that they often completely avoid to answer the WHY question. Many authors rather concentrate on proving the existence of a particular cline with empirical diachronic data. Lehmann's early (and necessary) focus on the description of the process scheme has somehow distracted from the important question, how similar grammaticalization processes in all the languages of the world are motivated. Why does a certain element follow a certain cline in one language but not in another language? This implies two questions at the same time: one asking for the starting point of grammaticalization, the other asking for its course.

Of course, many functional scholars have taken the WHY question seriously. Already in 1912, Meillet tried to answer the WHY and HOW of the process and notes:

Les langues suivent ainsi une sorte de développement en spirale: elles ajoutent des mots accessoires pour obtenir une expression intense; ces mots s'affaiblissent, se dégradent et tombent au niveau de simples outils grammaticaux; on ajoute de nouveaux mots ou de mots différents en vue de l'expression; l'affaiblissement recommence, et ainsi sans fin
[Thus languages follow a sort of spiral development: they add extra words to intensify an expression; these words weaken, decay and fall to the level of simple grammatical tools; one adds new or different words on account of expressiveness; the weakening begins again, and so on endlessly]. (Meillet 1912: 140)

Meillet believed that grammaticalization takes place because the speaker has the wish to express him-/herself more clearly. Words lose their expressivity through steady repetition, therefore they need reinforcement by other words.

Meillet's view about change as something being driven by 'the need for expressiveness' is functionalist to the core. Many functionalists assume that languages are as they are in order to solve problems for their users and owners. The primordial function of natural languages is to establish sophisticated inter-human communication (Dik 1986: 21, Butler 2003: 2). Language is regarded as a "tool with which we try to achieve our communicative goals" and is "well-adapted to this task" (Mackenzie forth.). In this view lexico-grammatical organization ('structure') allows to formulate and encode our communicative intentions ('functions'). Explanations for language structure or change are thought outside the language system; for example there are socio-cultural factors (e.g. politeness) which motivate language change. Moreover, functionalists especially focus on

'degrammaticalization' (Newmeyer 1998: 260–262; Norde 2009; Joseph and Janda 2003). Nevertheless, most researchers consider cases in the opposite direction rare compared to those examples that support the unidirectionality hypothesis. Most counterexamples are said to be "idiosyncratic" (Heine 2003: 582) and seen as an exception to the rule.

the impact of the discourse environment on the encoding (Croft 2015: 470; see information structure motivations). They look beyond the sentence “outwards and upwards to the discourse” as grammatical choices are affected by strategies to narrate an experience cohesively (Mackenzie *forth.*). So, if one wants to understand languages one needs to ask what speakers demand of them. In short it is assumed that speakers want to make linguistic transfer more efficient and interpersonal.

It is indeed the case that many linguistic changes involve directionality from propositional towards a textual or interpersonal meaning (e.g. development of discourse markers). However, it seems to me that very often functionalists focus too much on such communicative explanations. My main point is that language change sometimes takes place for non-functional reasons (e.g. cognitive reasons), which do not necessarily increase discourse-pragmatic efficiency.

Another related issue is the question whether pragmatic change precedes structural change. As mentioned above, many functionalists (e.g. Traugott’s proposal) working on grammaticalization have a tendency to see changes being steered by semantic and pragmatic forces and any observable morphosyntactic (and phonetic) change is seen as a result of this earlier conceptual meaning change (Fischer 2007: 82). However, we might find so-called ‘form-first’ phenomena in language change, where the motivation for change is neither semantic nor pragmatic. The essential question is how much the semantic/pragmatic and phonetic/phonological levels (and developments in those realms, e.g. semantic bleaching; phonological erosion; communicative creativity etc.) interact with and trigger change on the morphological and syntactic level. Although I do not want to deny the fact that language use and functional aspects shape and change any language system, it should be pointed out that in the case of article development the suggested pragmatic-discourse based factors may not be primarily responsible.

Researchers too often neglect the impact of the overall synchronic linguistic system on the direction of linguistic changes. Mithun has repeatedly referred to this shortcoming and mentions ‘the shape of the current grammar’ as an important factor that might constrain the path which a grammaticalizing element takes. She also stresses that “[t]he formation of new grammatical categories is motivated or hindered by the contours of the existing grammatical system” (Mithun 1991: 160). For example, syntactic position, formal similarity or the adjacency of signs can be important driving forces in linguistic change and especially in grammaticalization (Fischer 2007: 122; see also Haiman 1998: 161).

In this book, I will argue that the specific instances of grammaticalization are primarily (not exclusively) caused by cognitive changes which affect the setup of

the entire grammatical system and which can affect more than one linguistic item at the same time. This relates to the fact that grammaticalization studies often put too much emphasis on individual, isolated lexemes. For example, a shift from one to another category is often seen as an isolated instance of grammaticalization. However, individual lexemes do not grammaticalize in isolation and without reason. Often a closer look will reveal that not an individual form grammaticalizes but the larger syntactic construction which the form is embedded into.

3.2.3 Formalist generative views: DP emergence and categorical reanalysis

The emergence of the articles in the English language marks a change in the overall structure of the English noun phrase. Therefore, one aim of this book is to model such a change in a precise manner. How does a grammar which requires obligatory (in)definiteness markers differ from one that does not require it? While some researchers have not focused on the attempt to formally describe a change from demonstrative to article, several generativists have tackled the problem. Obviously, I do not subscribe to a generative model of language or language change. Neither do I believe in UG nor do I want to advocate a DP analysis of noun phrase structure (see below). Nevertheless, I will present some formalist thoughts on article development in the next sections, because some aspects of the modeling are highly interesting and relate to my constructional line of argumentation, which will be outlined in chapter 7.

Within generative modeling, the change from demonstrative/numeral into article is understood as an abrupt, semantic-syntactic reinterpretation of the grammatical system where new functional material is created by categorical reanalysis due to ambiguity and for the sake of structural simplification (Roberts and Roussou 2003; van Gelderen 2004, 2007). Before I present some specific generative proposals on article emergence (section 3.2.3.3), some basic principles of Chomskyan formalism (X-bar structure/functional categories section 3.2.3.1) and the DP model (section 3.2.3.2) have to be discussed.

3.2.3.1 X-bar structure and functional categories

Formalist views on language change which follow the work of Chomsky (1965, 1991) are based on the assumption of representational innateness, parameter change and the mechanism of reanalysis (Lightfoot 1979, 1991). Generally, the grammar of an individual is supposed to consist of a set of fixed and invariant autonomous ‘principles’ and a set of ‘parameters’ (not fully fixed) which are valid

for all languages (i.e. a Universal Grammar, UG) and which define the range of possible cross-linguistic variation (Haegeman 1997: 4; Carnie 2013). The child is equipped with a Language Acquisition Device (LAD), which refers to the child's ability to construct a grammar based on primary linguistic data (PLD), using those innate predispositions as a starting point (Jackendoff 2002: 70).

One of the suggested principles which is assumed to be 'universal' (at least in pre-minimalist models) is that of X-bar structure. According to the standard views of X-bar structure, each morphological category that is syntactically relevant heads its own phrasal projection, conforming to the general phrase structure rules. A phrasal category, an XP (or X''), is projected from a head X. Between these two is an intermediate level X'. XP immediately dominates, besides X', the specifier position (YP) which is thus sister to X'. Also, depending on its lexical properties, the head may take one or more complements (ZP) as sister. Essentially the complement is optional. The specifier and complement positions are occupied by phrasal categories. In addition it is possible for phrasal categories to be adjoined to some or all of the projections of X (X itself, X' and XP) (Ackles 1997: 5; Lyons 1999: 41). The places where the line branches are called nodes, so the node joining X and ZP is the X' node. X is also said to project X', and both X' and X'' are projections of X. Technically a unary branching label also counts as a node. There is a debate over how many projections and how much iteration is possible within a phrase. Generally, it is assumed that X' nodes can iterate (indefinitely) and that XP is the highest possible projection of X, closing off the projection. A Head is labeled X⁰ and X'' is labeled X^{max} or maximal projection (Ackles 1997: 6).

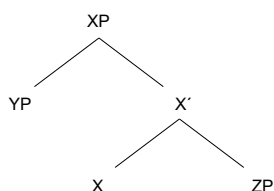


Fig. 2: XP-structure

Phrases may be headed by either lexical elements or functional elements. Different from lexical categories like N(oun), V(erb), A(djective), P(reposition),⁶⁵ functional categories are grammatical categories which may or may not put inflectional morphology in the syntax, e.g. Tense (T). In other words, grammatical features can also function as heads which project a phrasal category containing a specifier and a complement.

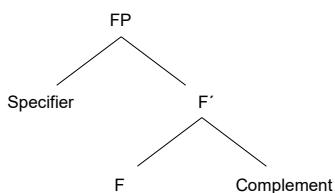


Fig. 3: FP-structure⁶⁶

Functional categories contain “closed-class grammatical morphemes, purely morphological material (bound morphemes or morphophonological features) or perhaps no overtly realized material at all, depending on the language” (Roberts and Roussou 2003: 45). Each functional category has a full phrase-structural status and can act as a trigger for ‘Movement’ (Robert and Roussou 2003: 6). Movement is an important mechanism in the most recent ‘generative’ model Minimalism. Grammatical structures are generated with the help of two mechanisms: Merge and Move (Ackles 1997: 9; Roberts and Roussou 2003: 18; Chomsky 1995, 2000). Merge, as a binary operation, connects two lexical items into one more complex item, thus building phrase structure. Move takes such a merged unit and connects it with the larger unit (Radford 2004, 2009).⁶⁷

For most formalists, grammaticalization cannot be separated from the concept of reanalysis and is not entitled to theory-relevant autonomy (Newmeyer 1998). Although grammaticalization is accepted as a descriptive term, it is seen

⁶⁵ Which denote real-world entities, states, activities, properties, relations etc.

⁶⁶ F represents any functional feature here.

⁶⁷ More recent work has taken Move to be a variant of Merge, i.e. ‘Internal Merge’, where two items that are already in the derivation are merged, as opposed to ‘External Merge’, where something from the lexicon is merged with something that is already in the derivation (see Chomsky 2001). This, however, is not reflected in most of the diachronic work presented in the following sections (e.g. van Gelderen 2004 or Roberts and Roussou 2003).

as a case of internal reinterpretation (reanalysis) of the grammatical system (Lightfoot 1991; van Gelderen 1993, 2004). Grammaticalization is the creation of new functional material and thereby involves categorical reanalysis of sometimes lexical or already functional material. Cases of diachronic grammaticalization are said to be located in the shifts of functional properties like case, agreement, tense, etc., “hence in the relationships within and between functional projections and the lexical projections for which they are relevant” (van Kemenade and Vincent 1997: 7). In other words, it is a change in category membership. What changes is the way functional heads are realized. “Assuming a universal hierarchy of functional heads [...] the change involves the overt realization of these heads” (Roberts and Roussou 2003: 35). Grammaticalization involves historical upward movement of forms which were base generated to a higher position in the functional hierarchy, turning into abstract heads (see section 3.2.3.2 below). Cases of grammaticalization are thus considered regular cases of reanalysis. From that perspective, grammaticalization always involves reanalysis but reanalysis does not necessarily involve grammaticalization.

3.2.3.2 DP-analysis as a model for nominal determination

The question remains how formalists model the change from demonstrative to article. To understand the line of argumentation better, it seems necessary to first have a look on how nominal determination is modeled in general. A rich and inspiring formalist literature on nominal determination and the diachronic, synchronic and typological structure of nouns and nominals exists (Abney 1987; Longobardi 1996, 2005; Zamparelli 2000; Coene and D’hulst 2003a,b; Alexiadou, Haegeman and Stavrou 2007). The evolution of determiner systems in various language families has been investigated by many linguists (e.g. for Romance languages: Vincent 1997; Stark 2005; for Slavic languages: Dimitrova-Vulchanova and Vulchanov 2012; for Germanic languages: Abraham 1997; Leiss 2000; Bauer 2007).

In earlier formalist models, scholars assumed that the NP is a maximal projection of the noun. Moreover, determinatives were understood to be in specifier position and adjectival expressions adjoin mainly to N’. Complements were typically expressed by prepositional phrases (Lyons 1999: 42). Such a model is very similar to the traditional conceptualization of the NP (compare Payne and Huddleston 2002) and has also frequently been employed by non-generativist research. However, the model has been criticized (Haegeman 1997: 21) and since Abney (1987) a different approach has become popular in which the NP is a complement of the determiner (Det or D). Here, the functional category D is the head

of the phrase, rather than N (see below for reasons). Thus the phrase is called DP not NP. The category NP still exists but only within the DP as a complement of the head D corresponding to what used to be N' (Longobardi 2005).

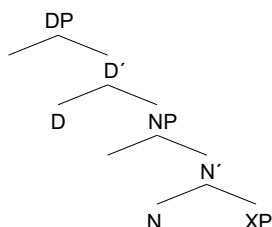


Fig. 4: DP-analysis

DP thus is a projection of the functional category of D(eterminer). Abraham elaborates on the difference between NPs and DPs:

[T]he difference between NP and DP is that NPs – determinerless, bare nominals – are inherently predicative and thus cannot occur in referential argument position. [...] Only DP can occur in argument positions, which need to refer to theta characteristics which in turn are contingent upon the semantics of the predicating verb. The role of picking out a particular referent is taken care of by a functional D. The role of functional D is to change predicative nominals, bare NPs, into arguments, DPs, by identifying the referentiality of a nominal. (Abraham 2007: 5)

In other words, the determiner forms a functional shell around the NP and can express various functions, like definiteness specificity, deixis, number, gender and so on. So the task of a functional D is to change predicative nominals into arguments by identifying the referentiality of a nominal.

An extensive discussion is still going on about the number and nature of possible other functional heads inside the English DP. Other functional heads, which are presumed to be involved in nominal structure, are, for example, Num(ber) and K(ase) (Lyons 1999: 44). Models also differ in respect to the question whether all NPs are DPs. Some claim that all NPs are contained in a DP (e.g. Abney 1987; Ritter 1991), but others argue that some NPs are not (e.g. Lobeck 1995). For example, it is not clear if [-definite] NPs are headed by a D. Additionally, researchers within the framework do not agree how many and what kind of projections are necessary to model full nominal structure in other languages (Ackles 1997: 48–50; Haegeman 1997: 25; Ritter 1991; Lobeck 1995; Giusti 1997).

This relates to the question whether D(P)-structure exists across all languages and language stages even when no D-word shows up overtly? Several formalist syntacticians side with the view that functional architecture is universal for all languages (which implies a great number of innate functional heads in UG) but that it depends on each particular language whether the functional category is expressed overtly or not (then being a ‘silent’ function) (Roberts and Roussou 2003). For example, “[l]anguages can differ in that in one language a given functional head F has an overt exponent, while in the next language F has no exponent” (Roberts and Roussou 2003: 6). In other words, the category exists but may remain empty as a ‘silent’ category. The idea is that even if determinatives are absent, nominal reference or other properties of argument NPs can only be accounted for if one assumes a D projection, which is left ‘empty’. However, if functional heads were always there in principle (with some of them never to surface) then this leads to a long list of universal functional categories for all languages and one needs to explain why their lexical appearance is blocked in one or the other language (Fischer 2007: 115).

For a second group of generative researchers, a covertly marked functional category D is not universal. Categories can be emergent and do not have to be operative from the beginning. In languages without overt determiners no functional D-projection exists in order to derive the referential status of nominals. In these languages the referential or definite value of the nouns is checked against other existing functional projections. Thus, functional categories do not have to be operative from the beginning in all languages but can emerge over time bringing about certain syntactic phenomena. This approach insists on evidence in the surface structure for the postulation of a category (Chierchia 1998; Vincent 1997; Progovac 1998; Boucher 2005; Bošković 2008; Börjars, Harries and Vincent 2016). For many scholars it seems implausible to postulate the existence of a non-active, empty, covert functional category which has no visible counterpart. Any model should insist on evidence in the surface structure for the postulation of a category. Fukui and Sakai pose the following question: “[I]f functional categories are present in a language, but they are not active, what does their existence mean exactly?” (2003: 329). They propose ‘The Visible Guideline for Functional Categories’: “A functional category has to be visible (i.e. detectable) in the primary linguistic data” (2003: 327). One only should assume those categories that one has evidence for. Roberts and Roussou refer to this approach as “What you see is what you get” (2003: 24).

Arguments for an emerging DP come from first language acquisition where determiners emerge rather late. Osawa sees some parallels between phylogeny

and ontogeny, where a DP-structure does not exist in the prefunctional stage before 24 months. “In both domains, functional D emerges later and the emergence of a D-system brings about the change from NP to DP” (Osawa 2007: 334). Additionally, one can find extensive typological evidence of languages without determiners.

3.2.3.3 Article development: from Spec to Head

Two hypotheses for the diachronic development of the article have been postulated: a “Covert-to overt-D Hypothesis” vs. an “Out of nothing-to-D Hypothesis” (Abraham 2007: 3). In the first

a silent DP might be invoked for a language introducing lexical determiners in D after changing the triggering grammatical and semantic features and thus satisfying singular reference and anaphoric, transclausal binding in due course. Hitherto undetected patterns of definiteness marking (covert DPs either in the linguistic sense or in the metalinguistic sense) are being replaced by an article system where D is overt or less covert (Abraham 2007: 3).

In other words, in the first scenario DP structure is universal with DP being a projection of the functional category determiner. In Old English, a silent, covert DP is replaced by overt marking (Abraham 1997, 2007; Leiss 2000, 2007; Wood 2007; Crisma 1999). In the second hypothesis, no DP existed in Old English yet. Old English had an NP structure without a D-projection where one finds demonstratives or other elements only specifying the nominal (Yamamoto 1989; Osawa 2003, 2007).

Those in favor of the first hypothesis argue that identifying the reference of a nominal is not always taken care of by an overt D. Sometimes, morphological case on the head nouns can determine the referentiality of a nominal indirectly. “Morphological case alternates contingent upon the choice of aspect determined definiteness versus indefiniteness” (Stark, Leiss and Abraham 2007: 5) and while there was no overt D-category present in language states as Old English, Old High German, Gothic, or Latin “referentiality was ascertained through the interaction of means other than direct lexical D-fillers” (Stark, Leiss and Abraham 2007: 5). In other words, an empty D-slotfiller is assumed for Old English. Evidence for such an empty but existing D-category comes from word order in OE nominals. When possessives or demonstratives occur with adjectives they often occur before the adjective. Wood (2003) argues that demonstratives, possessives and adjectives are strictly ordered in Old English and then there must be some functional layer above NP.

What arguments are put forward for the second hypothesis? Functional elements are generally defined as phonologically and morphologically dependent and are usually inseparable from their heads. They mostly lack descriptive content or the semantic contribution is secondary (Osawa 2007: 317). While the modern PDE articles have these features, the demonstrative and the numeral in OE syntax do not. For example, the demonstrative could co-occur with possessive pronouns in the same phrase. Also, word order was much freer than in Modern English. Demonstratives and possessives could appear to the right of the adjective and after as well as before the noun. Finally, NPs remained unmarked (bare) in contexts where one would expect an obligatory article in PDE to indicate definite reference.

This has led the supporters of the second hypothesis to three conclusions: Firstly, it has been concluded that word order patterns were less strict in Old English and the patterns one finds might simply be discourse-pragmatic restrictions on the mutual ordering in special cases without an underlying categorical distinction. Secondly, it has been suggested that demonstratives and possessive pronouns should not be treated as determinatives but rather as modifying elements in Old English, thus occupying the modifier slot in the syntactic tree. The demonstrative carries more information e.g. definiteness, deixis, spatial proximity and thus, formally, does not qualify as a functional head and cannot be a determiner (Ackles 1997: 105–107). Demonstratives are “generated in a Specifier position, similar to an adjective, which is lower than the article” (Giusti 1997: 111). In other words, the demonstrative is in a lower Spec position (together with the adjectives), because only the article heads the phrase as a true determiner.⁶⁸ Only articles are defined by the fact that they are functional heads. Ackles remarks:

[The definite article's] syntactic function is analogous to that of the indefinite in that it is the minimal marker of the presence of a functional node when that node is the leftmost node of a NP. The definite article is the minimal marker of a Determiner Phrase, and the rise of the definite article is a surface manifestation of an underlying change in the structure of the NP. (Ackles 1997: 3)

The article is a minimal marker of definiteness. Thirdly, and this is the overall conclusion, no DP existed in Old English. In other words, Old English had a flatter structure than Modern English (Yamamoto 1989; Osawa 2003, 2007; Miyamae 2005).

⁶⁸ Giusti leaves open the question what kind of category they are. Demonstratives might be a new category (indexical), or should be analyzed as Adjectives, since they are modifiers of the noun. In any case, demonstratives are not in D⁰, in contrast to articles.

[A]n OE nominal structure is expected to have a structure paralleling an OE flat clause structure against the analysis that an OE NP contains DP layer (cf. Wood 2003, Alexiadou 2004). I propose that OE NP has a partially flat structure. (Osawa 2007: 313)

For Osawa (2007: 322), the presence of a few pronominal elements before the head nominal and the word order does not give crucial evidence for a DP layer or the presence of a D-head. In time, however, the loss of case morphology triggered the emergence of DP “assuming that a Referential role of nominals must be bound by either a functional D or morphological case” (Osawa 2007: 313).

Thus, if one opts for the non-universal existence of the D, then the emergence of definite articles in languages represents the appearance of the grammatical functional category D triggered by the interaction of reanalysis and semantic weakening. On a syntactic level the structure of the phrase is changed through a reanalysis towards a D projection. The earlier D-less NPs change into DPs via the emergence of a D-paradigm for nominals (Lightfoot 1991; van Gelderen 1993, 2004).⁶⁹

The determiner slot emerges as an innovation in Old English and as a consequence the modifying demonstrative acquires its new status as article. In subsequent periods the determiner function consolidates its position and more and more elements are recruited as fillers of this new function (Van de Velde 2010: 293). What makes such a process possible is the broad functional overlap between demonstrative and definite article which can be seen as a deictically unmarked demonstrative. Thus the change is understood as an internal semantic-syntactic reinterpretation of the grammatical parameter system where new functional material is created by categorical reanalysis of lexical or already functional material (Lyons 1999: 323).

Especially Philippi (1997) has tried to offer an explanation for the article's development. She relates the rise of the article to the loss of the verbally governed partitive genitive and object case. She argues that in the Germanic languages (without overt D), morphological case performed the task of definiteness marking. Lexical definiteness markers already existed in the Old Germanic languages but they were rather demonstrative pronouns. Demonstratives optionally occupy Spec, FP as F^0 is already occupied by case. Therefore the demonstrative in Spec, FP may only act as a redundant reference marker which is only allowed in emphatic contexts. In other words, as a reference marker, the demonstrative pronoun is redundant. In time, however, due to the gradual erosion of inflectional morphology, genitive is lost as an object case and collapses with other cases. It is

⁶⁹ Note that the semantic function of determination is no doubt universal.

no longer possible to mark definiteness of the NP morphologically. Simultaneously, lexical definiteness markers become obligatory in indirectly anaphoric contexts in the ME period. The emphatic demonstrative is reanalyzed as the functional head of DP. Also the restrictions on the use of definite determiners are gradually lost. In this position the determiner takes over the function of specifying the referential interpretation of the NP (Philippi 1997: 90–92). “In the course of history case morphology is weakened such that it can no longer function as a syntactic head of FP, the emphatic determiner is reanalyzed as the functional head of the NP” (Philippi 1997: 91).

Also van Gelderen, who reports on *The Definiteness Cycle in Germanic* suggests that “the change from demonstrative to article is determined by (a) the shift from specifier to head” and she explains that “demonstratives might originate as adjectives”, but in an intermediate stage “[are] analyzed by a subsequent language learner as situated in the Specifier of the DP” (2007: 279) and finally become head of the phrase, which is when they turn into articles in accordance with certain economy principles.

It can be concluded that in formalist modeling there are two options for the article’s development: either the potential for D already exists (because it is universal) and the demonstrative pronoun, through reanalysis, gets raised into D position in time, which is the point when it turns into an article, or D has to emerge with the demonstrative moving into D which results in the creation of the new category. This book will present a constructionalist approach which differs very much from formalist models, but in formalist terms it definitely sides with those scholars who argue that D is emergent. However, in contrast to Osawa (2003,2007), I will argue that D emerges rather early namely between early and late Old English (see chapter 7).

3.2.3.4 Reconsidering the generative model

Generative researchers formally account for the difference between demonstrative and article usage by having the demonstrative in Spec position and the article in D position. This proposal shows awareness for the fact that the demonstrative and the article behave differently. Any model which tries to integrate this fact is welcome. At the same time the modeling can be criticized for two reasons. First of all, the general assumption of an innate Universal Grammar has been strongly rejected by many researchers (Elman et al. 1996; Deacon 1997; MacWhinney 1999). According to De Smet, Universal Grammar is “typologically difficult to operationalize (Croft 2001; Newmeyer 2004), implausible from an evolutionary perspective (Christiansen and Chater 2008) and unnecessary from an acquisitional

perspective (Slobin 2001; Tomasello 2003).” (De Smet 2009: 1730). Innateness claims are not arguments based on evidence for such a genetic basis but mostly derive from the poverty of the stimulus argument. For many years, however, functionalist research and the functional-cognitive position have presented various studies rejecting the poverty of stimulus argument and supporting the adequacy of a strong (general but not language specific) learning mechanism within the child.⁷⁰ These findings underline how much language acquisition is influenced through the environment and that syntax might be learnable after all. If we, as a consequence, do not accept the notion of a universal grammar established by formalism, an explanation based on UG should not be favored even if it might be internally coherent.

Second, the question remains why any categorical reanalysis should bring about a change from Spec to Head in particular? To answer this question van Gelderen (2004, 2007) argues that Spec to Head movement is a consequence of certain economic principles which motivate change and help the child to acquire its grammar. One general principle is the ‘Head Preference Principle (HPP)’ which states that whenever possible a word is interpreted as a Head rather than as a phrase (van Gelderen 2007: 284). Van Gelderen claims that the HPP is relevant to a number of historical changes and must be seen as a cognitively innate principle. If the linguistic input is ambiguous, the speaker will apply the HPP and preferably interpret elements as heads. One example of the HPP is the development of full pronouns into demonstrative pronouns and finally into articles (van Gelderen 2007: 284). Another proposed universal principle is that of ‘Late Merge’ (Chomsky 1995: 316, 378) which states that it is more economical to merge late. The ‘Late Merge’ principle accounts “for the change from lexical head to functional head or from functional to higher functional head” (van Gelderen 2007: 284).

70 The assertion that cognitive mechanisms are inadequate has been countered with proposals of how general mechanisms could achieve aspects of grammatical knowledge and evidence has been brought forward that general cognition does contribute to grammatical development. The speech that children hear is not as impoverished as Chomsky has supposed. The claim that language experience simply does not provide sufficient feedback has been rejected. Research to find evidence in favor of a non-genetic explanation for language acquisition has focused on the following aspects: (i) the power of statistical learning mechanisms and pattern abstraction abilities (Saffran, Aslin and Newport 1996; Aslin, Saffran and Newport 1999; Marcus et al. 1999), (ii) the connection between general, non-linguistic development and linguistic development (Shore, O’Connell and Bates 1984; Gopnik, Choi and Baumberger 1996), (iii) the quality of ‘motherese’ (Newport, Gleitman, and Gleitman 1977; Hoff-Ginsberg 1985; Morgan and Demuth 1996), (iv) the role of feedback (Chouinard and Clark 2003).

In her work, van Gelderen reformulates the two principles into one: namely the ‘Principle of Feature Economy’: “minimize the semantic/interpretable features in the derivation”. When phrases “are reanalyzed as heads and higher heads, they lose semantic force and formal features” (2007: 286). She also relates this to Greenberg’s Definiteness Cycle (1978) and translates the descriptive Greenbergian cycle in (a) into (b) within a DP structure:

- a) demonstrative > def. article > case/non-generic > class marker
- b) specifier > head > affix > zero

Grammaticalization results from ‘internal pressure’ in the children’s acquisition process, especially from economy principles and Feature reanalysis. Economy principles account for changes from “phrase to head and from lower head to higher head” (van Gelderen 2010: 130). In other words one can observe a case of structural simplification. Roberts and Roussou also mention structural simplification as a natural mechanism of linguistic change:

Structural simplification is a natural mechanism of change, and therefore the fact that grammaticalization is a widespread and natural kind of change. Our general characterization of grammaticalization then, is that it is categorical reanalysis which creates new functional material, and that this reanalysis always involves structural simplification. (Roberts and Roussou 2003: 3)

To conclude, languages have a tendency to simplify as a principle of economy and structural simplification is a formal principle of UG. The only reason why languages do not get simpler and simpler to a point of ‘structural perfection’ is that “the simplification effected by changes is always local, and many increase complexity elsewhere in the system” (Roberts and Roussou 2003: 17). What is attractive about this proposal is the notion of systemic simplification as a cognitive principle. This line of argumentation will be taken up in chapter 7.

3.3 Concluding remarks: in search for synthesis

Various explanations of article emergence have been discussed in this chapter. Change is multi-causal, which means that none of the explanations proposed in the last sections necessarily excludes another. In section 3.2.1 traditional views on the development of the articles have been presented. The German scholars at the turn of the last century came to the conclusion that (a) the definite article already existed in Old English and that (b) it developed as a necessary linguistic tool due to the decline of the inflectional system; a shift from a synthetic to an

analytic language. I have also discussed the hypothesis that article emergence is linked to changes in the adjective paradigm (weak/strong distinction), and I have tried to show why these proposals do not qualify as explanations.

I have illustrated that from early research onwards, some authors have been aware that there is an arbitrary nature to the development of the article (Gardiner 1932: 47; McColl Millar 2000a: 309) and that the birth of a grammatical category often takes place under obscure conditions (Christophersen 1939: 18). For example, McColl Millar calls English article development a “historical accident” (2000b: 275) and motivates the process through language contact. For him an external cause (namely Scandinavian influence from the North) is responsible for the observable demonstrative split in the nominal system. McColl Millar draws attention to the fact that some linguistic developments do not only occur because there is a communicative need for them but for other system internal reasons.

This relates to the functionalist explanations for article development. Although grammaticalization theory definitely provides a process scheme that fits the phenomenon descriptively, it does not focus on the (cognitive) causes of either the actuation of the change or its apparently irreversible spread within the population. As already mentioned, this book will argue that the postulated grammaticalization parameters cannot be considered ‘causal’ mechanisms of change. Rather these developments are the epiphenomenal result of ‘something else’ (Van de Velde 2010: 291; Ackles 1997; Joseph and Janda 2003). There must be some initial trigger in the language system for a lexical element to grammaticalize. I will argue that grammaticalization is a descriptive label for a certain type of change, which should and can be explained as the outcome of more fundamental mechanisms. Although valuable functional explanations have been put forward (e.g. Traugott’s subjectification hypothesis) they have their limits. Grammaticalization theory often neglects the synchronic system and the shape of the current grammar (internal structure) as a potential cause for or constraint on a change. It might be possible that sometimes structural change precedes semantic change or at least occurs at the same time. In the next chapters, I will offer an alternative constructional explanation for article development, which aims to show that ‘systemic’ factors (e.g. position, formal similarity, frequency) play a crucial role in the development.

Finally, generative proposals have been discussed. In most of them the demonstrative formally (i.e. theory-internally) does not have the same status as the article. Only the article heads the phrase and is to be found in D. This formal distinction underlines the syntactic and semantic differences of demonstrative and article; differences which are often ignored in the functionalist literature. Formalists interpret article development as feature reanalysis but do not focus on

the question why reanalysis takes place when it does. Structural simplification is an accepted principle but does not receive enough attention in work on article development.

I argue that the two major approaches of functionalism and formalism have to be unified if there is to be sufficient explanatory adequacy. Both external and internal structures should be taken into consideration when looking at language acquisition or change and article emergence in particular. As Fischer points out we need

a description of morphosyntactic change that does full justice to form as well as meaning, and takes all of the change into consideration. What we need therefore is a theory that looks at performance facts, takes account of variation, and gives equal weight to form and function (Fischer 2007: 82).

Cognitive Construction Grammar, which will be introduced in the next chapter, conceptualizes language in a way that gives equal importance to form and meaning. It tries to bridge the gap between system internal effects and speaker oriented issues. Moreover, it highlights the cognitive motivations of language change. This is why I believe that constructional reasoning can contribute to a proper explanation for article emergence.

Of course, Diachronic Construction Grammar is not the first approach to seek triggers for grammaticalization in the cognitive domain. For the last thirty years, cognitive approaches to grammaticalization have concentrated on the cognitive make-up of speakers with their creative problem-solving abilities. Semantic factors, not mainly pragmatic ones, are believed to trigger grammaticalization. For example, metaphorical thinking (as a kind of semantic change), has been made responsible for grammaticalization ('the metaphorical extension approach', see Heine, Claudi and Hünemeyer 1991; Heine 2003; Bybee 2003a,b; Evans and Green 2006). Speakers think metaphorically and, for example, conceptualize abstract domains of cognition in terms of concrete domains. For example body part terms (as referential lexical expressions) in many languages grammaticalized into locative adpositions (e.g. English *back*). This process involves "metaphorical extension emerging from the mapping of image schemas from source to target domain" (Heine, Claudi and Hünemeyer 1991: 46). Also Traugott's proposal of subjectification and intersubjectification is cognitively grounded to a certain extent (Traugott and Dasher 2002). However, many other cognitive factors influence grammaticalization, some of which will be discussed in the next chapter on Diachronic Construction Grammar.

4 Diachronic Construction Grammar

Given an agreed framework, mythical ‘truth’ is decidable. But the function of the myth, as a structuring device giving some piece of empirical or conceptual chaos an architecture, filling a void, is in principle independent of its truth value. Its utility derives from its perceived truth or explanatory or gap-filling efficacy. (Lass 1997: 4)

The synchronic approach tells linguists how the bits and pieces of a language fit together, but a diachronic approach can help us to understand why. It can help us to understand the forces and processes which put the pieces where they are. (Partington 1993: 178)

In this chapter, the most important tenets of (Diachronic) Construction Grammar will be discussed. The last two decades have seen a growing trend towards constructionalist modeling. It is important to note, however, that there is not one Construction Grammar model which all constructionalists use, but several versions of Construction Grammar(s), e.g. Cognitive Construction Grammar (Goldberg 1995, 2006), Radical Construction Grammar (Croft 2001), Sign-based Construction Grammar (Michaelis 2011; Boas and Sag 2012), Fluid Construction Grammar (Steels 2011), Embodied Construction Grammar (Bergen and Chang 2013), Usage-based Construction Grammar (Diessel 2015).

Although most of these branches share basic premises, they also differ from each other, especially with regards to the degree of formalism they use.⁷¹ Furthermore, not all construction grammars are usage-based or seek psychological plausibility or motivation.⁷² The present study, however, specifically seeks to show the value of a usage-based, cognitive constructional approach to language change, which is why this chapter is structured as follows: first, I briefly summarize the most important concepts of what has come to be known as the (‘Goldbergian’) Cognitive Construction Grammar model (section 4.1). Afterwards, I will discuss a usage-based, constructionalist approach to language change (section 4.2). Note that in my presentation of the approach, I rather eclectically incorporate ideas from several linguists who have contributed to the constructional enterprise.

71 For example, Sign-based Construction Grammar (Michaelis 2011; Boas and Sag 2012) can be considered the most ‘formal’ version of Construction Grammar; obviously being very different from ‘formalist’ generative models.

72 Excellent introductions to Construction Grammar can be found in e.g. Croft and Cruse (2004); Evans and Green (2006); Hoffmann and Trousdale (2013) and Hilpert (2014).

4.1 Cognitive Construction Grammar

Every research tradition is characterized by metaphysical, representational and methodological commitments. Every tradition uses its own methodologies to elicit and analyze linguistic data, has a certain way to represent the structure of particular utterances, and is based on fundamental beliefs about what language is (Croft 2015: 210–211). Some of those commitments have to be outlined, before we can tackle a specific diachronic phenomenon. In Cognitive Construction Grammar, which shares many of its assumptions with Cognitive Grammar (Langacker 1987, 2008), language is an emergent complex system shaped by domain-general cognitive processes (Gell-Mann 1992; Ellis and Larsen-Freeman 2009; Ellis, Römer and O'Donnell 2016). In this book, the term ‘emergent’ will be understood in the sense of epigenesis, i.e. the development of a form out of its surroundings, not in the sense of Hopper (1987, 2008, 2011), who proposes that grammatical structure is only temporary, indeterminate, provisional and epiphenomenal to conversation (Hopper’s ‘fixed code fallacy’) (Auer and Pfänder 2011: 1–18).

Like any truly cognitive approach, there is a commitment to find general principles which account for all aspects of human language (‘generalization commitment’) and to identify general principles for language which incorporate knowledge about the mind and brain from other disciplines (the ‘cognitive commitment’) (Evans and Green 2006: 501). Language is regarded as embodied human experience which is grounded in

language-independent cognitive processes such as association (establishing psychological connections), automatization (using structures without much constructive effort), schematization (extracting a general structure or schema out of the commonality of specific experiences), and categorization (using stored structures to interpret new experience) (Broccias 2013: 192).

Structure emerges through repetition and categorization rather than resulting from a pre-existent, innate matrix. In other words, constructionalists subscribe to a non-nativist approach which does not assume the existence of a universal grammar (e.g. X-bar structure or syntactic universal categories) (Bybee 2001: 3; Elman et al. 1996). “Grammar is a dynamic system of emergent categories and flexible constraints that are always changing under the influence of domain-general cognitive processes involved in language use” (Diessel 2015: 296).

Everything about language is learned inductively and the acquisition of grammar is based on usage. The “speakers’ knowledge of grammar is fundamentally grounded in their experience with concrete words and utterances, which crucially involves frequency of occurrence, so that a crisp distinction of system

and use cannot be upheld” (Diessel and Hilpert 2016: 21). The study of grammatical competence can thus not be separated from the study of language use (performance) and statistical aspects of language are relevant for the core of our grammatical knowledge.

All construction grammars are non-derivational, materialist ‘what you see is what you get models’ with only one single, unified level of representation at which sentences are licensed by different sets of so-called ‘constructions’ (Bybee 2013: 51). This unified representational level links together most aspects of the meaning and form of an utterance rather than representing syntactic, semantic, phonological and pragmatic knowledge in encapsulated modules. What distinguishes Cognitive Construction Grammar from other constructional models like Sign-based Construction Grammar (Sag 2010, 2012) or Berkeley Construction Grammar (Fillmore 2013) is its focus on psychological plausibility, the role of frequency, and the status of item-specific instances (see sections 4.1.1 and 4.1.2). In this usage-based approach even fully regular patterns may be stored alongside more abstract schematic constructions when they occur with sufficient frequency (Boas 2013: 251). In that respect, Cognitive Construction Grammar is a non-reductionist, inventory-based approach which emphasizes that the language system does not so much work by building structures (like in generative models) but by storing them (Evans and Green 2006: 481). Language is a highly redundant inventory comprising patterns that “run the gamut from full generality to complete idiosyncrasy” (Langacker 1988b: 113). Language users have a very rich memory system which enables them to store large amounts of information. Thus, it can be the case that a linguistic item (e.g. *good morning*) can be stored more than once in the sense that it is not only licensed by the constructions [*good*] and [*morning*] and an abstract NP schema [ADJ+CN]_{NP}, but it is also licensed by a separate specific construction [*Good Morning*] that may be stored in addition. As a consequence, language learning requires an immense amount of storage, but this is no problem, because storage – due to the enormous memory capacity of the human brain – is ‘cheap’ whereas computation is ‘costly’ (Diessel 2011: 834).

Adhering to this ‘redundant storage’ assumption, Cognitive Construction Grammar is in strong opposition to formalist generative approaches in which economy is essential. Most formalist approaches argue that language must be maximally economical in order to be acquired and manipulated in production as quickly as can be observed. Therefore any model should avoid redundancy and should be economy-driven, which is what motivates a derivational, rule-based view on language that consists of phonemes and words (blocks) and ‘rules’ helping to combine those blocks to build larger structures. Forms that can be derived from the application of a general rule need not be listed in a grammar itself.

In contrast to this, in Construction Grammar, traditional rules have been abandoned and replaced by schemas. A schema is “a grammatical template, or abstract construction, that has evolved through generalization over concrete tokens” (Diessel 2011: 838). Schemas constrain and specify the well-formedness of their subcases. If an existent, conventionalized, entrenched schema sanctions an utterance, it is well-formed (Langacker 1987: 66; also see section 4.1.2).

Another characteristic feature of Cognitive Construction Grammar that needs to be mentioned is its lack of a formalism. In contrast to other constructional models (e.g. Sign-based Construction Grammar), Cognitive Construction Grammar keeps rigid formalization to a minimum. This vagueness has been criticized but proponents of the branch repeatedly point out that the advantage of such a non-formalist approach is its flexibility and its ability to interface with theories of processing, acquisition, and historical change (Goldberg 2006: 215; Boas 2013: 251). Construction grammarians start with an investigation of the data and a specific phenomenon and only afterwards develop formalizations which are based on what they find necessary. According to Bergs and Diewald, the “seeming inattentiveness towards an *a priori* given formal apparatus is in fact a pragmatic necessity [especially] for diachronic studies transcending merely theoretical reflections on change and in addition working with empirical data” (Bergs and Diewald 2008: 2).

It is this openness to diachronic aspects, together with its emphasis on cognitive mechanisms, frequency and data authenticity, which influenced my decision to take up a usage-based cognitive approach to explain the phenomenon of article emergence. Nevertheless, I strongly adhere to the belief that no research paradigm can and should do without some (albeit basic) kind of consistent formalization (annotation) which will always be necessary in order to describe a phenomenon in a comprehensible way. This is why I will present a proposal for a useful annotation of constructions and constructional networks in chapter 7.

4.1.1 The Construction: form function mapping

What all construction grammarians have in common is the belief that all morpho-syntactic knowledge in the speaker’s mind is symbolic and represented in the form of constructions. Constructions have been described as ‘conventionalized form meaning pairings’ or ‘form function units’ (Goldberg 2006: 3; Diessel 2011: 830). A construction is a symbolic sign in the sense that it links a formal side to a particular meaning and a function via a symbolic correspondence link. As is shown in Figure 5, the ‘form’ side of a construction is associated with syntactic,

morphological and phonological information, whereas the ‘meaning’ side is understood to include all semantic⁷³, pragmatic and discourse-functional properties (Croft and Cruse 2004: 258).

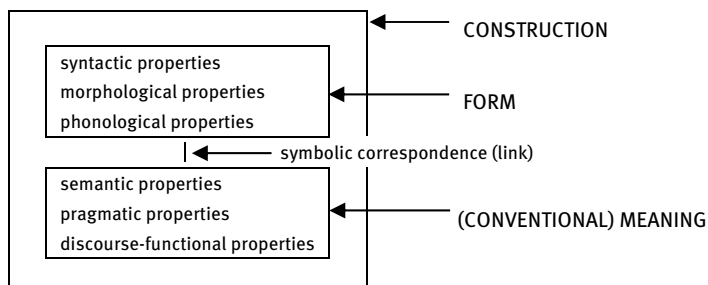


Fig. 5: The symbolic structure of a construction (Croft 2001: 18; Croft and Cruse 2004: 258)

The crucial idea is that phrasal and clausal constructions – like words – are symbolic signs in the sense of Saussure: learned pairings of form and function which themselves carry meaning that is independent of the words used in the particular phrase (Goldberg 1995: 1; 2013: 16). The idea of postulating meaningful constructions which exist independently of the words that instantiate them is based on the wish to show that the meaning of e.g. a clause is not exclusively projected from the specifications of the main verb (Boas 2013: 236). In other words, a schematic grammatical construction is meaningful as well, although the meaning of a schematic formal template is often quite abstract and rather procedural.⁷⁴ For example, the verb phrase schema is said to have the rather abstract function of predication, while the ditransitive schema [SUBJ PRED OBJ1 OBJ2] has the constructional meaning {agent causes the transfer of a possession} (Goldberg 2013: 19). Another example would be the passive construction [NP *be* V-*ed* [by NP]]

⁷³ Note that in Construction Grammar, semantics is directly associated with surface form and is “based on speakers’ ‘construals’ of situations, not on objective truth conditions” (Goldberg 2016:16).

⁷⁴ For Traugott and Trousdale (2013: 12–13), following Terkourafi (2011: 358–359), linguistic expressions are procedural if they code grammatical information which helps the speaker to combine various concepts into one conceptual representation. For example, case and aspect markers or markers of indexical reference or information structure are classified as procedural elements.

which has the meaning {X is affected [by Y]}. (Diessel 2015: 300). Thus, all grammatical elements have some kind of abstract meaning signaling linguistic and cognitive relations, like for example, perspective, temporal phase, intertextual relations or deictic orientation. An exception to this would be historical relicts which lost their linguistic function in time. For example, the prefix *ge-* which was fully functional in Germanic and Old English can still be found in some ModE words like *enough* but there it lost its function.

4.1.1.1 Classifications and definitions

Constructions can be classified in several ways and on various dimensions, especially regarding their size and specificity. Constructions can be atomic and substantive (e.g. lexical items like *this*, *the* or *green*), atomic and schematic (e.g. an abstract category like Noun or Quantifier) as well as complex and schematic (i.e. abstract templates). Complex constructions have sequential structure with positions that are fixed and lexically filled and positions that are open. In that sense, constructions are either fully specified (e.g. fixed phrases like *How do you do?*), completely underspecified [DEM+CN]_{NP}, or semi-specified/partial, in the sense that they have both substantive and schematic parts, e.g. [*call* NP_{agent} *a liar*] (Goldberg 2013: 17).

Construction type	Traditional name	Examples
Complex and (mostly) schematic	syntax	[SB] <i>be</i> - TNS VERB <i>-en</i> by OBL]
Complex, substantive verb	subcategorization frame	[SB] <i>consume</i> OBJ]
Complex and (mostly) substantive	idiom	[<i>kick</i> -TNS <i>the bucket</i>]
Complex but bound	morphology	[NOUN- <i>s</i>], [VERB-TNS]
Atomic and schematic	syntactic category	[DEM], [ADJ]
Atomic substantive	word/lexicon	[<i>this</i>], [<i>green</i>]

Fig. 6: The syntax–lexicon continuum (Croft and Cruse 2004: 255)

In contrast to substantive constructions, schematic constructions are phonologically underspecified and semantically general. Additionally, in semi-specified constructions we find fixed words (often function words but also lexical words) that are considered an integral part of the construction and sometimes even give

it its name. For example, ‘the existential *there*-construction’, ‘the *way*-construction’ or ‘the *let alone*-construction’ (Diessel 2015: 312; Trousdale 2014: 565). At the same time, it is also possible that specific words are used in a construction significantly more often than others. For example, corpus studies show that a verb like *give* occurs more often in the ditransitive construction than many other verbs (see collostructural analysis by Stefanowitsch and Gries 2003).⁷⁵ *The* as a word is obviously used very often as a slotfiller in the definite [DET+CN]_{NP} construction.

In such a classification there is no divide between the lexicon, syntactic categories and syntactic parameters or constraints. The constructions of a language can be “placed on a lexicon-syntax continuum” (Hoffmann and Trousdale 2011: 2) where the lexical elements and grammatical patterns are positioned on a ‘cline’. Contentful material which can be used referentially is positioned at one end of the cline, whereas grammatical templates are positioned at the other end.

So far in this chapter, no definition of what a construction is has been offered. Now it is time to do so. Several definitions of the term construction can be found. In the earliest constructional models, a construction was defined in a rather restricted way as a grouping of more than one word which has some idiosyncratic behavior, i.e. either it has unusual formal characteristics or a meaning or pragmatic effect which is not derivable by any rules (e.g. idioms, fixed phrases) (Fillmore, Kay, and O’Connor 1988; Goldberg 1995).⁷⁶ In later, usage-based constructional work some scholars started to use a much wider definition of the construction. For example, for Bybee constructions are “processing units or chunks – sequences of words (or morphemes) that have been used often enough to be accessed together” (Bybee 2001: 173). The frequent use of a construction can lead to its memorization and any linguistic pattern – if encountered often enough

75 “One can think of the relationship between lexemes and constructions as part of a probabilistic network shaped by language use. On this account verbs (and other lexemes) and constructions are related to each other by connections with graded activation values that are determined by the combined effect of general semantic criteria and the language users’ experience with particular lexical expressions and constructions”. (Diessel 2015: 314)

76 In its early years, Construction Grammar was primarily used to describe linguistic phenomena that generative grammar could not deal with very well, like idioms or fixed phrases. It is well known that the meaning of idioms is often non-transparent and non-compositional (Nattinger and De Carrico 1992; Moon 1998; Wray 2002; Schmitt 2004). To account for such idiomatic expressions, Construction Grammar distinguishes between compositional constructions, where the whole meaning can be derived directly from its parts and constructions which are semantically non-compositional, where the whole is different from the sum of its parts, in the sense that the meaning is somehow idiomatic (richer or different from the sum of the meaning of the parts) (Hoffmann and Trousdale 2011: 4).

– will be accessed as a whole and can be considered a construction, even if it shows no idiosyncrasy of form and meaning and could potentially also be assembled on-line as a construct which is fully licensed by other constructions (Hoffmann and Trousdale 2013: 5). Influenced by this line of argumentation, also Goldberg adjusted her definition to the following:

Any linguistic pattern is recognized as a construction as long as some aspect of its form or function is not strictly predictable from its component parts or from other constructions recognizable to exist. In addition, patterns are stored as constructions even if they are fully predictable as long as they occur with sufficient frequency. (Goldberg 2006: 5)

Goldberg’s 2006 definition is the one which will be adopted in this book. Note that this definition encompasses single morphemes as well. This commitment has manifested itself in the literature as Goldberg’s famous claim for language to be “constructions all the way down” (2006: 18).

Finally, one more crucial distinction must be mentioned. Constructions are different from their realizations in speech, i.e. constructs. Constructs are empirically attested tokens of linguistic structures uttered by a particular speaker on a specific occasion with a specific communicative intention (Traugott and Trousdale 2013: 16). In Diessel’s example below the construct *Open the door!* is an instantiation of the imperative schema $[V_{\text{base}} + NP_{\text{non-subject}}]!$. This schema, however, only stabilized successfully in the speaker’s mind because of so many constructs in the input which instantiate it (also see next section 4.1.1.2).

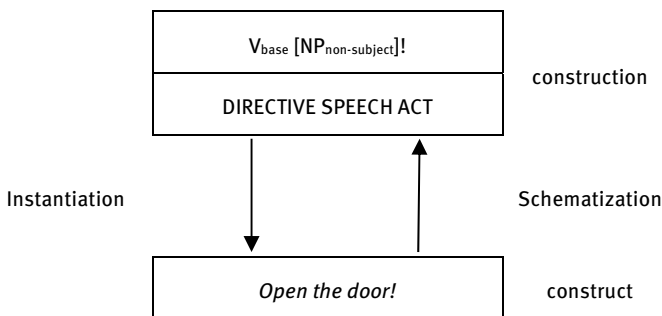


Fig. 7: Construct vs. construction (Diessel 2015: 303)

Spoken constructs may have specific phonetic features which are not replicated in general. Moreover, constructs are rich in contextual meaning (e.g. the perlocutionary act; Gricean implicatures), which may be unrecoverable outside of the

particular speech event. This contextual meaning is often not part of the construction which sanctions the construct. Still it is also possible that in some cases the illocutionary meaning of a particular message is stored as an integral part of the construction. For example, in a phrase like *It's hot in here* the illocutionary message to open a window to let in cold air is likely to be stored on the construction's meaning side.

Written constructs are also empirically attested tokens. In other words, constructs are produced by speakers/writers and processed by hearers/readers (Traugott and Trousdale 2013: 16). The distinction between constructions and their constructs is especially important for a conceptualization of linguistic change. Partial changes in construct production/perception may lead to the emergence of a new construction or motivate the reorganization of an existing construction. Still, the changes themselves originate in the constructs, not in the constructions (Fried 2013: 423).

4.1.1.2 Entrenchment, schematization and compositionality

As the definitions just given show, frequency is an important factor in a usage-based constructional model (also see section 4.2.1). In general frequency influences how strongly concepts are represented in memory and how fast they can be retrieved. Also with linguistic items, input frequency is especially linked to neuronal cognitive implementation (i.e. entrenchment). Langacker was the first to introduce the notion of entrenchment to linguistics: “Every use of a structure has a positive impact on its degree of entrenchment, whereas extended periods of disuse have a negative impact. With repeated use, a novel structure becomes progressively entrenched” (Langacker 1987: 59). Every time a speaker uses a form, this activates nodes in the speaker's mind. The more often a node is activated, the stronger and better connected it becomes. Often used nodes show signs of linguistic strength and are said to be more strongly entrenched, whereas units that are used infrequently lack this strength, and are only weakly entrenched (Barðdal and Gildea 2015: 32).

Blumenthal-Dramé (2012: 4) points out that the concept of entrenchment has been defined differently by different scholars. Whereas Langacker focuses on the relative strength in memory space, De Smet and Cuyckens highlight that strongly entrenched units are holistic rather than componential. For them, an entrenched unit “represents an automated, routinized chunk of language that is stored and activated by the language user as a whole, rather than creatively assembled on

the spot” (De Smet and Cuyckens 2007: 188). Phrases and combinations that often occur together will sometimes be stored as one chunk or single processing units.

Entrenchment, in other words, can be understood in two ways: in terms of representation strength and in terms of holistic chunking. Schmid characterizes the difference as follows:

The understanding in terms of strength of representation evokes a purely quantitative, gradual, potentially asymptotic trajectory, whereas the understanding in terms of a holistic chunk promotes the picture that a qualitative change from analytic and declarative to holistic and procedural processing takes place at some point (see Blumenthal-Dramé, 2012, pp. 67–69, 186–187). From a psychological point of view, the first facet can be explained in terms of memory consolidation, while the second one involves a chunking process that can find an end point in a gestalt like chunk that is emancipated from its component parts and defies analytical processing. [...] As a first rough approximation, then, entrenchment can be understood as referring to a set of cognitive processes—mainly memory consolidation, chunking, and automatization—taking place in the minds of individual speakers. In addition, the term entrenchment has been used to denote not only these cognitive processes but also the effects they have on the representations of linguistic structures, that is, their products or resultant states. It is in this sense that we can talk about degrees or strengths of entrenchment and about entrenched linguistic structures. (Schmid 2016: 10)

As a reaction to the complexity of the issue, Blumenthal-Dramé offers the following rather broad working definition for entrenchment, which will also be used in this book: “Entrenchment denotes the strength or autonomy of representation of a form-meaning pairing at a given level of abstraction in the cognitive system” (Blumenthal-Dramé 2012: 4).

It is essential to understand that frequency does not only affect the entrenchment of words but also plays an important role in the cognitive storage of abstract grammatical patterns. The repetition of varied items which share formal or functional similarities encourages the formation of a variable schema. For example, structures with a high type frequency, i.e. patterns which occur with many different lexicalizations (e.g. *John gave Bill a book*, *Peter sent Mary a letter*, *She forwarded him the mail*, ...), still share a common albeit abstract meaning, namely {A caused B to receive C by V-ing}. The repeated exposure to such constructs can lead to the entrenchment of this abstract, schematic pattern (Goldberg 2006: 39, 98–101; Schmid 2016: 10–12).

Fischer summarizes the relation between frequency and the entrenchment of abstract formulas succinctly:

Structures or collocations, both at token- and at type-level (or a combination of the two), that occur frequently may become automated because neuronal sequence sets (i.e. token-

sets, types or construction-types that are connected to a particular token when it is used) are strengthened every time they are fired. This creates not only formulaic phrases on the token-level (fixed collocations, idioms etc.), but also morphological and syntactic ‘formulas’ on increasingly higher type-levels, e.g. the typical feature-set of a Noun, the familiar structure of NPs and VPs, and the familiar word orders that obtain within a particular language (e.g. the typical [NPS VP NPO] sequence of English declarative sentences). (Fischer 2007: 139)

What the quote by Fischer shows is that the term entrenchment does not automatically relate to a construction’s highest level of schematicity, because types and tokens may be entrenched independently. For construction A a high schematic level may be the most entrenched one; for construction B a low level may be the most entrenched. For example, a high number of types will lead to the strong entrenchment of a schematic level. The more members of a pattern there are, the more likely it is that speakers will generalize across those members. If, however, low-level instances have a high token frequency they often develop their own idiosyncrasies and will not contribute to the abstraction of a schema, as they will not be conceived to be a member of a schema in the first place (Barðdal and Gildea 2015: 32).

At this point a few additional words about compositionality seem necessary. In traditional descriptions of syntax, every word or clause is formally compositional in that it is a combination of several linguistic elements (e.g. phonemes, words, phrases). In Construction Grammar, too, clauses are compositional in the sense that they are made up of combined constructions. So constructions are the building blocks of grammar, because they can be combined to create phrases, sentences and larger stretches of discourse. Many abstract constructions have slots which can be filled by a limited number of other constructions; in short, a compositional slot and filler model.

One aspect, however, is essential: if the construction is successfully entrenched and has gained unit status, compositional scaffolding is not necessarily required. Frequent chunks, formulaic sequences and even clause-level constructions, if well entrenched, are stored as prefabricated wholes and “processed in a holistic manner, that is, by means of an access-and-retrieval rather than an online, computational procedure” (Schmid 2016: 17). Nevertheless, the compositional structure may remain immanent and a speaker may still recognize the compositionality of entrenched units (Evans and Green 2006: 756). For example in a construction like [*Merry Christmas!*] which as a seasonal wish is considered to be stored as a chunk, the speakers will still be able to parse that *merry* is the adjectival unit which contributes the meaning of {happy} to the overall construction.

4.1.2 The Constructicon: network structure and inheritance

All the constructions of a language form the ‘constructicon’, a structured inventory consisting of multiple inheritance networks. The constructicon is not simply a list of unrelated constructions; rather, one can assume “taxonomic and meronymic networks of constructional families” (Barðdal and Gildea 2015: 23). Several types of links are distinguished in the network. Diessel recently proposed the following four types of links: “links between (i) constructions at different levels of abstractness (taxonomic links), (ii) constructions at the same level of abstractness (horizontal links), (iii) constructions and syntactic categories (syntactic links) and (iv) constructions and lexemes (lexical links)” (Diessel 2015: 414). Mostly, scholars distinguish between so-called vertical inheritance links and other relational links. Inheritance will be dealt with first.

4.1.2.1 Inheritance

It was already mentioned that the grammar of speakers consists of schematic (higher-level) constructions and fully concrete, substantive (lower-level) constructions. Each construction is assumed to represent a node in a network and lower-level constructions, which are more specific, are said to vertically inherit features from higher-level, more abstract constructions situated towards the top of the network. Characteristic features of form and meaning are inherited in a downward fashion (Hilpert 2014: 59). Figure 8 gives an examples of a taxonomic hierarchy:

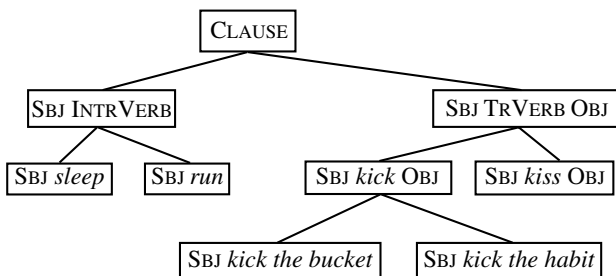


Fig. 8: Taxonomic hierarchy (Croft and Cruse 2004: 264)

Such a network structure positions the most concrete constructions at the bottom. It allows generalizations to be conceptualized in constructions on the higher

levels which pass on this information to lower constructions. In contrast, subregularities can be captured by constructions positioned on various midpoints of the hierarchical network (Boas 2013: 244; Goldberg 1995: 67). The more abstract constructions are linked to the more specified ones via so called instance links (also see next section).

There are basically three different network models that try to capture vertical constructional relations: the complete inheritance model, the default inheritance model and the full-entry model (Croft and Cruse 2004: 262–279; Hilpert 2014: ch.3). In the complete inheritance model, a feature of or a change in the highest node of the network will be inherited in all lower nodes. That means that in a complete inheritance model, any information is represented non-redundantly (only once) and then the complete information is inherited by other constructions. In the default inheritance model only information from above which does not conflict is inherited. Constructions lower in the hierarchy may contain information that conflicts with the inherited information from the dominating constructions. This is possible because the model allows for lower constructions to block inheritance from above, when it conflicts with more specific information. In contrast, the full entry model specifies all information in every node in the network. Inheritance, therefore, plays a minor role. Again a lower node has no need to change when the higher nodes change (Boas 2013: 245; Barðdal and Gildea 2015: 4). This book will adopt a default inheritance model.

One major question is when it is feasible to postulate a separate node in the network. Here, I side with Croft and Cruse (2004: 263) who postulate that

[a]ny construction with unique idiosyncratic morphological, syntactic, lexical semantic, pragmatic or discourse-functional properties must be represented as an independent node in the constructional network in order to capture a speaker's knowledge of their language. That is any quirk of a construction is sufficient to represent that construction as an independent node. (Croft and Cruse 2004: 263)

Another aspect of inheritance is that a particular construct is often the result of the parallel activation of several constructions (i.e. multiple inheritance). Normally, an actual expression is the combination of several different constructions. For example, the sentence *I didn't sleep* is an instantiation of both 'the intransitive verb – construction' [SBJ INTR VERB] and 'the negative – construction' [SBJ AUX-n't VERB] (Croft and Cruise 2004: 264). Multiple inheritance can also be observed in the following question *What did Mina buy Mel?*, which according to Goldberg (2013: 28) has inherited features from 'the ditransitive – construction',

‘the non-subject question – construction’, ‘the subject-auxiliary inversion – construction’, ‘the VP – construction’, ‘the NP – construction’ and ‘the indefinite determiner – construction’.

4.1.2.2 Relational and horizontal links

Most constructional grammars postulate different types of links between constructions. One well-known classification scheme comes from Goldberg (1995) who proposes four types: instance links, polysemy links, metaphorical extension links and subpart links (also see Boas 2013). First, there are vertical instance links which show that one construction is a special case of another construction in the sense that it is a more fully specified version. Instance links are inheritance links. Polysemy links capture the fact that one linguistic form is often associated with different but conceptually related meanings. There are semantic links between the prototypical sense of a construction and its extensions, which means that a word/node/construction is linked to all its various meanings via polysemy links. For example, *since* as a temporal expression will be linked to the word *since* as an expression of causality in the network. These polysemy links are normally discussed “at the subschema level, not at the level of individual micro-constructions” (Traugott and Trousdale 2013:59; Hilpert and Diessel 2016: 59). Metaphorical extension links are another type of link involving a particular metaphorical mapping. They connect a basic sense of a construction to an extended sense. For example, the resultative *Lisa drove him wild* (a change of state) is a metaphorical extension of ‘change of location’ like in caused-motion constructions (*Lisa drove him home*). In form, these two constructions are very similar; in terms of their meaning one is an extension of the other.

A subpart link is a horizontal link that connects constructions which are partially similar in form and meaning at the same level of abstraction. However, constructions linked by subpart links do not instantiate each other. Whether subpart links are strongly or weakly entrenched influences how easily speakers can analyze the component parts of a complex construction. A construction with strongly entrenched subpart links is highly transparent, whereas a construction with weakly entrenched subpart links is opaque and will be processed holistically (Hilpert and Diessel 2016: 60–61).

So far, scholars do not agree on the nature of horizontal links. Some researchers, like for example Cappelle (2006:18), have proposed to equate horizontal links between constructions with relations between ‘allostructions’, that is, constructions which display some differences in form but which share the same meaning.

These are seen to be connected to a higher level schema, often called ‘superconstruction’, or ‘constructeme’. There are others who seem to understand horizontal links rather in terms of paradigmatic relations between different choices or cells in a paradigm, similarly to the cells in an inflectional paradigm, which do share some general meaning but at the same time are opposed to each other in terms of their semantics/function (e.g. Van de Velde 2014). Horizontal links are important to show that “the form-function relation of a particular construction may be partly motivated in relation to its neighbors” (Van de Velde 2014: 147). The way I conceptualize horizontal links is similar to Van de Velde’s proposal. There is a difference between taxonomic links (symbolizing relatedness through inheritance) and horizontal links (symbolizing partial similarity but non-relatedness).

For example in the case of English demonstratives we find the following distributional paradigm:

Tab. 16: Modern English demonstratives

	singular	plural
proximal	this	these
distal	that	those

For example, *those* is the demonstrative which is used in distal contexts with plural noun heads (e.g. *those books over there*). From a constructional point of view this paradigmatic distribution could be formalized in the following (preliminary) network sketch:

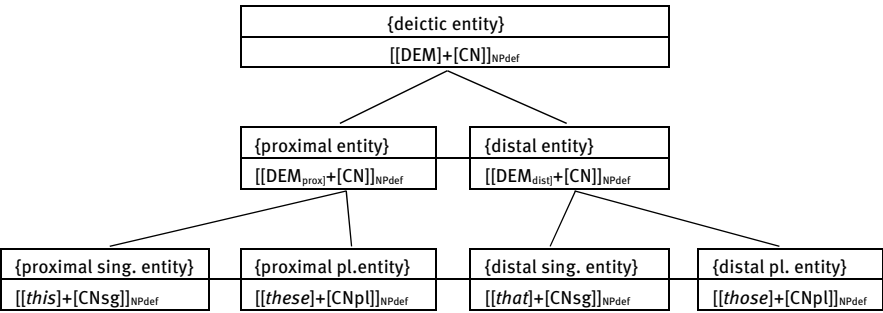


Fig. 9: Network of demonstrative NP constructions in ModE

Here the four semi-specified constructions are horizontally linked to each other because although they are formally different, they share some semantic features (due to belonging to the same paradigm). They are also vertically linked to more abstract constructions which again are horizontally connected to each other.

No complete account as to how constructions are connected in speakers' minds exists yet. As of today, the constructicon is still an under-researched area and many questions have not been answered satisfactorily. Future research still has to show, how connections in the network can best be conceptualized. It is still a matter of debate which inheritance model is preferable for synchronic and diachronic descriptions. Additionally, it makes quite a difference whether construction grammarians base their networks on form or function. Constructional families which are based on form are more common than constructional families based on function, but this does not necessarily mean that the former is psychologically more realistic or the best way to go about conceptualizing. What if a pattern is not related by form but only by meaning? In the absence of any definite answers in this respect, the current study will offer a preliminary sketch of a constructional network of OE NP constructions which is open for debate and future refinements (see chapter 7).

Most of the open questions just mentioned are related to the bigger issue whether Construction Grammar strives for psychological plausibility. Whereas several scholars (Barðdal 2008: 45) argue that schemas can and should be viewed from a primarily psycholinguistic perspective, for others schemas are descriptive devices created by the linguist and are not meant to correspond to mental representations. The arguments in this book are firmly grounded in the cognitive commitment and the belief that categories and constructions must have some mental reality. If one abandons this assumption for convenience, the whole enterprise is at stake and constructions become secondary descriptive devices. While this might be acceptable and feasible for other linguistic models, it is unacceptable for any cognitive approach which repeatedly highlights its interest in what goes on in the mind. If we take the cognitive commitment seriously, this means that we have to prefer a model which – although it will always be an abstraction – by hypothesis mirrors psychological conceptual reality most closely. Of course, it will never be possible to visualize a network in its entirety. A network sketch of a particular constructional family is a simplification on all levels; convenient for the linguist who zooms in on a particular aspect.

It is, of course, important to realize that the mind is not the brain. Constructional networks are not mirror images of neuronal configurations. A neural network 'stores' information in its connections, not in the nodes itself. A two-dimensional network representation does not do justice to the fact that neural networks

are definitely three-dimensional. Links are possible in multiple different directions. Thus, from a neurological perspective, the whole discussion whether links are vertical or horizontal is completely irrelevant. When linguists write that the speaker's network "can grow 'upwards' via schematization, 'outwards' via extension and 'downwards' as more detailed instances are added" (Evans and Green 2006: 546), they do not talk about the mind/brain but refer to the printed visual representations of linguistic networks. Still, it seems important to stress that for a cognitive constructional model, it is fundamental to strive for psychological plausibility. Even if an abstract construction like the NP schema may be hard to detect, it must still be assumed that its pattern is identifiable (at least in theory) somewhere in the neural network of the speaker as a stable configuration of neurons. This configuration will be activated when a particular NP construct is produced or parsed and it will be linked to its subparts and other constructions.

Although scholars tend to disagree on most of the points mentioned in the last two subsections, one aspect on which there is general consensus is that age-thresholds play a minor role in the development of individual grammars. For example, Croft (2000: 57–58), Aitchison (2001: 202–204) and Bybee (2010: 196) all point out that adult constructions are not fixed but can change through shifting frequency conventions among different social groups. In other words, the construction of every person constantly changes over a lifetime. Language change is not only driven by transmission mistakes/reanalysis across generations in the acquisition process of children (e.g. Roberts and Roussou 2003); adults also constantly innovate and spread new constructions, which may lead to language change in the long run – a fact which finally brings us to diachrony.

4.2 A usage-based constructional approach to language change

Construction Grammar is currently also becoming very popular among diachronic linguists. As Fried outlines in an introduction to one of her articles, the goal of any diachronic model must be to capture "the inherently dynamic nature of linguistic structure and the gradualness of grammatical change, while satisfying the general requirement of systematicity and descriptive and explanatory adequacy" (Fried 2013: 419). A constructional model seems to be able to meet those requirements very well, which is why in the last years many diachronic scholars have started to reconceptualize their argumentation in constructional terms and develop a comprehensive framework of Diachronic Construction Grammar (e.g. Bergs and Diewald 2008; Trousdale and Gisborne 2008; Fried 2009; Diewald and Smirnova 2010; Coleman and DeClerck 2011; Patten 2012; Hilpert 2013; Traugott

and Trousdale 2013; Trousdale and Norde 2013; Trousdale 2012, 2014; Petré 2014; Barðdal and Gildea 2015; Perek 2015; Torrent 2015; van Rompaey, Davidse and Petré 2015; Zehentner 2016; Coussé, Andersson and Olofsson 2018).

Looking at linguistic change from a constructionalist point of view, forces us to refine, revise or even reconceptualize many traditional assumptions about change. That does not mean to simply use a new catalog of terminology to describe old phenomena, but to change perspective in order to add something valuable to the explanation. Nevertheless, as constructional thinking is firmly grounded in what could be called cognitive functionalism, many ideas are not completely new but have been around in the functionalist or cognitive literature on language change for many decades.

In contrast to many formalist proposals, which highlight that change in the language output is caused by reanalysis of the innate (formal) parameter system (a top-down approach, see section 3.2.3), in a cognitive-functionalist approach, language is changed bottom-up via usage and “every historical innovation is sanctioned both by the regularities that constitute grammar and by more general functional, cognitive and pragmatic factors and constraints” (De Smet 2008: 86). For example, it is assumed that diachronically loose discourse sequences become more tightly organized syntactic constructions through various processes like, for example, pragmatic inferences (Tomasello 2003a: 14). Givón postulated a cyclic process of condensation, where information structures develop into syntax: “DISCOURSE > SYNTAX > MORPHOLOGY > MORPHOPHONEMICS > ZERO” (Givón 1979: 33); today’s discourse patterns are tomorrow’s syntax and today’s syntax is tomorrow’s morphology. In a similar vein, Heine, Claudi and Hünemeyer (1991: 139) speak of the “fossilization of discourse” into syntax. Phrases or phrasal constructions are processing units that have evolved from strings of linguistic elements which frequently co-occur. There is a general tendency to place semantically related elements next to each other (e.g. a thing (noun) and its attributes (adjectives)). The long term cognitive effect is the emergence of phrasal structures and boundaries as well as automated processing units (e.g. fixed phrases or collocations).

4.2.1 The role of frequency

A basic commitment of Diachronic Construction Grammar – which was already mentioned – is that input frequency is crucial. Frequency motivates grammatical structure, acquisition and language change (Bybee 2001, 2007, 2010; Diessel 2007; Gries and Divjak 2012; Krug and Schlüter 2013; Behrens and Pfänder 2016;

Diessel and Hilpert 2016; Ellis, Römer and O'Donnell 2016). A construction may become more or less frequent over time. The reasons for that can be manifold. Any constructional change can result in an increase or decrease of token and type frequency.⁷⁷ Higher frequency in the data (for example in a corpus of manuscripts) is thus important evidence for constructional change. At the same time, token and type frequency are often a primary contributor to and active force in many changes.

Diessel and Hilpert (2016: 4) list twelve processes in which linguistic structure is affected by high type and token frequency:

- the emergence of collocations (1) and syntactic constituents (2)
- the interaction between lexemes and constructions (3)
- the productivity of linguistic schemas (4)
- the ability of language users to assess the grammaticality of novel linguistic forms (5)
- the occurrence of phonetic reductions and coalescence in language change (6)
- the segmentation of the speech stream (7)
- the extraction of syntactic categories in L1 acquisition (8)
- the maintenance of frequent linguistic strings under pressure from analogy (9)
- the choice between alternative structures in language production (10)
- the processing of the unfolding sentence in language comprehension (11)
- the flagging or marking of infrequent forms (12)

Some of the points mentioned have already been discussed briefly in the previous sections. Which constructions are successfully stored and which categories are formed depends to a large extent on the repeated use and the frequency of particular patterns in the input. The frequent use of certain items and strings has a profound influence on how language “is broken up into chunks in memory storage, the way such chunks are related to other stored material and the ease with which they are accessed” (Bybee and Hopper 2001: 3). High frequency leads to the emergence of collocations and syntactic constructions and their strong entrenchment.

Lexical decision tasks, reading-time and eye tracking experiments have repeatedly shown that frequent words (with frequent meanings) and frequent multiword expressions are “recognized, accessed, and retrieved faster, with less effort and with less interference from paradigmatic neighbors than rare ones” (Schmid 2016: 13; Jescheniak and Levelt 1994; Jurafsky, Bell, Gregory and Raymond 2001; Knobel, Finkbeiner and Caramazza 2008). Moreover, frequent words

⁷⁷ Token (absolute) frequency measures how often a construction occurs in a running text. Type frequency (or dictionary frequency) counts the number of different lexical elements that occupy a slot or express a category in a constructional schema.

are acquired earlier than rare ones in first language acquisition (Diessel 2007; Saffran 2001; Saffran, Aslin and Newport 1996.)

Frequency also affects the relation between the slots in abstract constructions and their respective lexical fillers. Lexical expressions which are frequently used in a specific grammatical pattern are considered as prototypical lexical fillers for that grammatical pattern. As Schmid points out:

[H]ighly frequent fillers of the variable slot are strongly represented compared with paradigmatic competitors and thus selected preferentially, almost by default (e.g., *give* in the ditransitive construction *Mary gave me the book*); they function as analogical attractors for less frequent items and contribute to the resistance to change. (Schmid 2016: 15–16)

Some other points in the list refer to the fact that frequency supports linguistic innovation and conservation effects at the same time. On the one hand, frequency supports reductive processes: for example, often the semantic force weakens by ‘habituation’, which is the process by which an organism ceases to respond to a repeated stimulus on a constant level (Bybee 2003b: 604).⁷⁸ Also, the high frequency and the automated use of schemas trigger phonological reduction (e.g. *going to* > *gonna*) as well as phonological fusion (Bybee, Haiman and Thomson 1997; Krug 2000).

On the other hand, high frequency may lead to the retention of conservative characteristics. Frequently and strongly entrenched words and phrases are more likely to be accessed holistically and are therefore less likely to be changed on-line. As a result their general structure will tend to be preserved. Thus, “repetition has a reductive effect on-line, but a conserving effect in storage” (Bybee 2003b: 621). For example, irregular verbs like *ate* or *broke* keep their irregular forms, in contrast to the productivity of *-ed*, and modals retain their idiosyncratic behavior with regard to the formation of questions and negations. Frequent constructions are thus more resistant to analogical levelling and structure mapping. All the as-

78 Bybee relates her assumptions to the work of Haiman (1994) and Boyland (1996). Haiman sees parallels between steps in cultural evolution and the observable processes in language change. For him cultural evolution is a kind of ritualization process due to steady repetition and automatization. In a first step called ‘Habituation’, the steady repetition of some cultural behavior sets in. Repetition then leads to an ‘Automatisation’, which consequently can lead to some reanalysis of the gesture, as the sequence does not get interpreted as separate entities any longer, but as an automated chunk. This finally brings about a loss of meaning of the single constituents. Through the weakening of the individual gesture, there is also some reduction of form. This, in a final step, leads to ‘Emancipation’ as the original instrumental function is substituted by some symbolic gesture (Haiman 1994, 1998).

pects just mentioned make Diachronic Construction Grammar regard highly frequent constructions as more central to the language system while constructions with low frequency are regarded as less central. As will be shown in chapter 7, the high type and token frequency of some OE NP constructions is an important influence on the development of the English articles. Their strong entrenchment and their high frequency triggers the abstraction of a new schema.

4.2.2 Constructional change and constructionalization

One of the most attractive concepts of a diachronic constructional model is the network design adopted for representing the organization of linguistic knowledge. If linguistic knowledge is structured in the form of a network of constructions, this network can change over time because, among other things, new constructions come into existence and old constructions fall out of use. Thus, linguistic change must be reconceptualized as changes in the constructicon. For example, any new form-meaning pairing created via a word-formation process has the potential to become entrenched as a new node in the constructicon (if used more than once). Every catch phrase that falls out of use will ultimately dissolve as a node in the constructicon. Linguistic change is not limited to creation and loss. It is well known that existing constructions can also change aspects of their form or meaning, and links between certain constructions can dissolve or new links can be established. Moreover, the frequency of a construction can increase or decrease, which also counts as change.

Hilpert defines constructional change in a rather broad way:

Constructional change selectively seizes a conventionalized form-meaning pair of a language, altering it in terms of its form, its function, any aspect of its frequency, its distribution in the linguistic community, or any combination of these. (Hilpert 2013: 16)

However, Hilpert points out that not every linguistic change is constructional change. According to him regular sound change, massive deflection, the global reordering of constituent order or diglossia formation do not count as constructional change (Hilpert 2013: 205). It remains to be seen, whether such changes really do not qualify as constructional changes.

Although a thorough systematization of different types of change is still pending, three main types of network change are currently being distinguished. There is one where a completely new node is created and added to the network

(or where an existing node is lost), another where an existing node changes internally (e.g. in terms of its form or meaning) and, as a third type, a change where the links between existing constructions in the network are rearranged:

- (i) Node creation/addition and node loss
- (ii) Internal node change
- (iii) Reconfiguration of node external linking

The emergence of a new form-meaning pairing which previously did not exist in the constructicon and which is added to the network as a new node has been termed ‘constructionalization’. Boye and Harder define constructionalization rather vaguely as “the overarching change into a new whole construction” (Boye and Harder 2012: 35-36). Traugott and Trousdale give the following more specific definition:

Constructionalization is the creation of form_{new}-meaning_{new} (combinations of) signs. It forms new type nodes, which have new syntax or morphology and new coded meaning in the linguistic network of a population of speakers. (Traugott and Trousdale 2013: 22)

For example, the coinage of a completely new word is a case of ‘lexical constructionalization’. The emergence of a new procedural construction is a case of ‘grammatical constructionalization’. Every time a speaker abstracts over a group of constructs and forms a new type node we observe constructionalization, which takes place when the constructs persist in memory. Persistence in memory is created by the frequent and repeated use of similar tokens, which enables the language user to generalize. Via this generalization process, an abstract construction may be created as a result of repeated exposure to similar tokens. In contrast to this, using a construction infrequently leads to the weakening of that node and its links in the constructional network until constructs received in the input are reinterpreted as no longer being sanctioned by the particular construction (Traugott and Trousdale 2013: 68). Ultimately, the node may disappear, something that can be termed ‘constructional loss’ or ‘constructional death’.

Traugott and Trousdale introduce a distinction between ‘constructionalization’ and ‘constructional change’. They argue that the term constructionalization should only be reserved for changes where either a new construction is coined *ex nihilo* or for a process of neoanalysis where both the form and the functional side of a construction change at the same time (resulting in a new form-meaning pairing that is added to the network as a separate node). In other words, constructionalization involves neoanalysis of both morphosyntactic form and semantic/pragmatic meaning (Traugott and Trousdale 2013: 22). In contrast, a node

internal change of an existing node which only affects one internal dimension (form or meaning) should be called ‘constructional change’ and does not involve the creation of a new node. According to Traugott and Trousdale, constructional changes are understood as small incremental steps which often precede and feed constructionalization or follow constructionalization. Smaller changes leading to constructionalization typically “involve expansion of pragmatics, semanticization of pragmatics, [...], and some small distributional changes” (Traugott and Trousdale 2013: 27). Changes following constructionalization may involve phonological and morphological reduction and host-class expansion.

The question of debate here is whether a change on only one side of the constructional sign (meaning or form) is also a kind of ‘constructionalization’, in the sense that a new alternative node is created. For example, Diwald (2015: 119) finds the distinction between constructional change and constructionalization hard to grasp and not very useful. For some scholars, the distinction conflicts with Saussure’s concept of a sign. A sign, per definition, is a fixed form-meaning combination. So if one side of it changes, this means that a new sign has evolved. Also in the case of constructional changes any new construct would no longer be sanctioned by the existing construction. As Börjars, Vincent and Walkden point out “[e]ven a change to either form or function no longer sanctions the new construct” (2015: 371). From that point of view, we constantly observe the creation of new signs, which differ from each other. Barðdal and Gildea also stress that “[w]e must posit a new construction every time a new form-meaning association is both readily differentiable from previous associations and sufficiently robust to be considered ‘conventionalized’ ” (Barðdal and Gildea 2015: 18). Moreover, it seems very difficult to decide when exactly one has constructionalization and when we only have pre-constructionalization. Hilpert notes that

constructionalization ultimately invites the notion of a discrete threshold between an existing construction that has changed and a new construction that has come into being. This threshold may turn out to be a line in the sand that is impossible to draw with certainty. [...] It is unclear whether the two have to occur simultaneously, and if so, what would make simultaneous change of form and function different from a change in which the two happen in sequence (Hilpert forth.).

From this point of view, ‘constructional change’ (in the sense of Traugott and Trousdale) where an existing form-meaning pairing is affected only on its semantic or on its formal side is a case of ‘constructionalization’ as well. A link between a formal shape and a functional meaning is established, which previously did not exist in that way. In the strict sense Traugott and Trousdale’s ‘constructional change’ is a case where we observe the constructionalizations of new form-meaning pairings which – locally in the network – substitute the old ones. It is a case

of ‘constructional substitution’ where an existing construction is substituted by another (albeit very similar) newly emerged form-meaning pairing. If we conceptualize change like this, then Traugott and Trousdale’s distinction between ‘constructionalization’ and ‘constructional change’ seems to get lost. However, this is unfortunate to a certain extent, because it seems important to acknowledge the very special cases in which a completely new form is paired with a completely new function to form a sign which previously did not exist and which is added to the network. This, after all, is different from the cases where an existing construction changes in the sense that its node gets substituted.

In reaction to the debate, I suggest the following slightly different distinction and terminology. Linguistic change comes about (a) via the local substitution of nodes (‘constructional substitution’/‘constructionalization *in situ*’) or (b) via the addition of new nodes (‘constructionalization *novo loco*’). The term ‘constructionalization’ will be defined simply as ‘the emergence of a new form-meaning pairing which previously did not exist in the construction and which is ADDED as a new node to the network’. This definition includes Traugott and Trousdale’s special cases of form_{new}-meaning_{new} pairings but also cases where a new sign is established that only differs in form or function from its source. The important characteristic feature in my definition is that the newly emerged construction represents a new node in the network which is established and will have to be linked to existing nodes. Crucially, it does not replace an existing node when it arises. For example, the newly emerging definite article does not replace its source (i.e. the demonstrative). The demonstrative [se_{DEM}] construction remains in its position in the network. However, the newly emerged article [se_{ART}] (for a long time sharing the same formal shape with the demonstrative) is added as a new node somewhere else in the network. In contrast, when the demonstrative [se_{DEM}] extends its meaning/function in the sense that speakers do not only use it when they want to express spatial deixis but also for intertextual deixis then no additional node is created in a locally different position but the change remains local in the sense that the demonstrative [se] node is transformed. Some people would say it is ‘changed’ in a one-sided manner (on its function side), some people would say it is ‘substituted’ by a slightly different construction. ‘Constructional changes’ (in the sense of Traugott and Trousdale), thus, are cases of local node adjustment *in situ*.

Finally, as another type of linguistic change, it is also possible that the links between constructions are rearranged (node external change). Hilpert (forth.) calls those ‘connectivity changes’ in which the network undergoes some re-wiring. Links between existing constructions may fade and disappear or emerge. Especially Torrent’s work (2015: 173). is relevant here. He proposes two hypotheses:

'*The Constructional Convergence Hypothesis*' and '*The Constructional Network Reconfiguration Hypothesis*'. The first claims that "historically unrelated constructions are capable of participating in the same formally and functionally motivated network" (Torrent 2015: 175). The second proposes that "inheritance relations in construction networks change over time as new constructions emerge" (Torrent 2015: 175). The question remains what is responsible for the disappearance or rearrangement of links between constructions?

One answer to this question is 'divergence'. Constructions with high frequency in some contexts exhibit greater autonomy. This is known as 'divergence' (Hopper 1991; Bybee 2003a,b). Certain subschemas which are used very often undergo semantic bleaching or phonological reduction, and are often semantically opaque and independent from the meaning of their relatives because they have strong individual cognitive representations that do not need a direct comparison with other constructions (Bybee 2003b: 618). For example, the future marker *gonna*, which is the contracted version of the *going to* construction has obviously lost its etymological compositionality, which is why it is likely that speakers no longer associate it with the lexical verb *go* (in the sense of walk). We can say that this particular subschema has emancipated itself from the other construction, which corresponds to the dissolving of the assumed links between those nodes (Bybee 2003b: 604, 618). Instead, due to its function as an informal future reference marker and its structural shape, new links might be established to the *wanna* construction by analogy (Lorenz 2013a,b).

In general, a construct is well-formed if an existent schema sanctions the utterance. In processing a construct, the hearer attempts to match the input with nodes in his or her network. Often there is a full match ('full sanction') between what the speaker intends and the hearer understands. When a hearer is unable or simply does not match a construct with an existing construction in his/her constructional network because there is no existing construction that fully sanctions the construct there is only 'partial sanction' or 'mismatch'. Mismatch can lead to communicative breakdown, to the identification of an ill-formed construction, or to the mental creation of a completely new provisional construction. Very often however, mismatch leads to alignment. If language users (in this case addressees) cannot fully match a construction, they look for similar constructions by analogy. This alignment takes place via application of the best fit principle which is the search for an extant construction which is similar in terms of its discourse and pragmatic properties and its constructional formal (sub)schema (Traugott and Trousdale 2013: 57).

Another distinction regarding change can be made. Linguistic changes can be conceptualized in two ways. Either as linguistic innovation in the individual

speaker or as conventionalized innovation, in the sense that a new construction has successfully spread in a speaker community. Innovative constructs are symbolic pairings of form and meaning but they may be one-offs (non-entrenched) or (entrenched) idiosyncrasies of a particular speaker or hearer, which are only (temporarily) manifest in an individual network but lack conventionality because they are not shared by a larger group. Even a new construction is not yet change at a population level. If, however, the new construction has stabilized successfully in a speakers mind, is uttered frequently enough and is adopted by other speakers in a social network, then we can talk about conventionalized change of a language (i.e. linguistic change in more than one individual mental network). Whereas one cannot expect to find a lot of traces of individual innovation in the data, it is more likely that the conventional stage will be attested in the data (corpora, textual evidence) (Traugott and Trousdale 2013: 46, 57).

This relates to the question whether linguistic change is gradual or abrupt. From a constructional perspective the answer to this questions depends on the perspective one takes (external or internal). If we focus on a population or textual output (external perspective), change is definitely gradual and piecemeal because it takes time until a new construction spreads in the population. If we focus on individual grammars, change has been said to be sudden in the sense that a speaker has or does not have a new construction at his or her disposal or in the sense that s/he has reanalyzed an ambiguous structure in a new way or not. At the same time, language change in the construction of an individual has a gradual component as well. For example, it will sometimes take repeated use over a period of time for any newly emerged construction to successfully stabilize itself (strong entrenchment) in the neural network of an individual speaker.

4.2.3 Reconceptualizing grammaticalization as constructionalization

In this book I argue that it is particularly fruitful to employ constructional thinking to explain cases of grammaticalization. Grammaticalization processes can and should be reframed as cases of ‘grammatical constructionalization’ (e.g. Fried 2013; Trousdale 2014; Barðdal and Gildea 2015). Traugott and Trousdale define ‘grammatical constructionalization’ as the emergence of “a form_{new}–meaning_{new} sign that is (mostly) procedural in function” (Traugott and Trousdale 2013: 147). It is important to highlight the importance and influence of abstract constructions in grammaticalization. Scholars not only need to focus on fully specified atomic constructions, e.g. OE [*se*_{DEM}] which might be grammaticalizing in

time but also on their interaction with the more abstract schemas they are used in e.g. $[[\text{DET}]+[\text{CN}]]_{\text{NPdef}}$.

Research on grammaticalization has been very productive in the last decades. However, it has also been attacked in more recent years. The extreme focus on the question of unidirectionality and the constant debate about its status as an explanatory mechanism drew the attention away from more important questions in diachronic syntax. The main problem is the narrowness of focus: “[Z]ooming in on identifying which source lexemes become which resultant grammatical morphemes, the importance of the constructional context is frequently lost” (Barðdal and Gildea 2015: 5). It is very important to understand that grammaticalization takes place in and is often limited to a specific, larger constructional context. That is why one also needs to focus on the other grammatical elements the respective morpheme combines with as well as the schematic slots in which the grammaticalization takes place (Barðdal and Gildea 2015: 5-8; Noël 2007). At the same time, the grammaticalization of an individual morpheme can be influenced by the emergence of abstract complex constructions on higher levels in the network. In short, “a proper understanding of language change has to take into account the driving force of lexically underspecified constructions” (Van de Velde 2010: 291).

The awareness that syntagmatic relations and morphosyntactic context play an important role in grammaticalization has been termed the ‘constructional turn’ in grammaticalization studies (van Rompaey et al. 2015) but the observation that linguistic elements often do not grammaticalize on their own but in the context of larger constructions is not new (Bybee et al. 1994). Already Lehmann (1995[1982]: 406) makes clear that the grammaticalization of lexical items takes place within particular constructions and grammaticalization may involve the creation of new constructions. Whereas some state that “a particular construction – a productive syntactic structure with a specific lexeme in a specific slot [...] is the initial point of grammaticalization” (DeLancey 1993: 3), others point out that grammaticalization can also “result in the establishment of constructional schemas whose slots can be filled with suitable lexical items” (Hoffmann 2004: 195). Haspelmath defines grammaticalization as “a diachronic change by which the parts of a constructional schema come to have stronger internal dependencies” (Haspelmath 2004: 26). For my line of argumentation, De Lancey’s observation will turn out to be crucial (see chapter 7).

According to Barðdal (2008), Trousdale (2012, 2014), and Traugott and Trousdale (2013), grammaticalization from a constructional point of view involves the emergence of a new construction which is different from the source

construction in several ways. First, there is an increase in schematicity. Schematicity has generally been interpreted as the loss of contentful meaning and an increase in abstractness (Gisborne and Patten 2011: 96). This means that the formal and functional properties of the new construction are more abstract and more procedural than the one of the source construction. It is crucial to understand that construction grammarians distinguish between two kinds of schematicity. First, the internal schematicity of a construction may increase. If a single atomic construction like for example the noun *back* grammaticalizes into an adverb *back*, we can say that the semantic schematicity of this construction has increased as it expresses a much more abstract, spatial or temporal concept. At the same time, also complex schematic constructions can increase their level of schematicity. More complex abstract schemas may expand by recruiting more members. A schema which bleaches conceptually can extend the number of slotfillers it accepts (Trousedale 2014: 559).

Higher schematicity ultimately affects productivity; an increase in productivity can be observed. Productivity is understood as the frequency with which new instances may be generated. Finally, if the construction is complex, it is possible that compositionality is reduced in the new construction. The decrease in compositionality must be understood as “a reduction of transparency in the link between meaning and form” (Traugott and Trousedale 2013: 113).

In chapter 7 it will be shown in detail that the grammaticalization of the demonstrative and the numeral is triggered by the prior emergence of two abstract constructions. This leads to semantic bleaching, reduction in form and increase in productivity, with the forms *se* and *ān* taking up more procedural textual functions as (in)definiteness markers. The fact that ultimately the semantic pole and the formal pole of the OE demonstrative *se* and the numeral *ān* changes (i.e. emergence of the article category) is linked to the constructionalization of the $[[\text{DET}_{\text{infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NPreferential}}$ construction in which *[se]* and *[ān]* function as default slotfillers.

4.2.4 The status of reanalysis and analogy in Diachronic Construction Grammar

In most constructionalist literature, reanalysis (neoanalysis) is seen as the underlying mechanism responsible for the creation of a new node in the network. Reanalysis as a term is problematic because it has been defined in various ways by different scholars and in different schools. Broadly speaking, reanalysis is the di-

achronic process by which a form comes to be assigned a different syntactic function from the one it originally had without any change in the surface form. For Langacker, giving a rather functionalist definition, reanalysis is a “change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation” (Langacker 1977: 58). Such a broad definition of reanalysis (as a structural change) includes semantics and phonology. Reanalysis is involved in grammatical constructionalization because it involves structural change. It causes a linguistic surface sequence to receive a new syntactic and semantic interpretation. An alternative analysis is assigned to an existing string in ambiguous linguistic environments, which results in a split between an old representation and a new. In a next step, the newly established representation may manifest in new surface sequences which are incompatible with the old analysis (De Smet 2009: 1728–1729). In formalist frameworks reanalysis is conceptualized in a more narrow sense, as a “mechanism which changes the underlying structure of a syntactic pattern which does not involve any modification of its surface manifestation [e.g. morphological marking, and word-order]” (Harris and Campbell 1995: 50). Changing the ‘underlying structure’ includes change in constituency, hierarchical structure, category labels and grammatical relations.

Traugott and Trousdale point out that reanalysis has been criticized because of “the ‘re-’ in the term, the association of reanalysis with abruptness, and neglect of relationship between reanalysis (mechanisms) and parsing (motivation)” (Traugott and Trousdale 2010: 37). My own stance in this debate is that the term *re-analysis* seems to be ill-formed especially from the perspective of the child in the language acquisition process. It is a misconception to assume that a speaker/hearer, when s/he encounters ambiguous input in his or her language acquisition process, *re-analyzes* this input. If anything at all the child ‘analyzes’ and ‘categorizes’ the linguistic data in a certain way. How should the learner *re-analyze* a system that he/she acquires for the first time?

[O]ne can only ‘re-analyze’ something that pre-exists, so if a child learns a language and parses a particular string with a new analysis, no ‘re-analysis’ has occurred from the point of view of the learner.[...] [T]he term ‘reanalysis’ is therefore not accurate in a compositional semantic sense, except in the case of language users who reanalyze their own structures. (Traugott and Trousdale 2010: 35)

From an outside perspective, on a meta level so to speak, it may be justified to state that linguistic surface forms get *re-analyzed* (re-organized), but on the individual speaker’s level a different process takes place. The speaker merely analyses the linguistic input available. This is why Traugott and Trousdale (2013: 36)

– inspired by Anderson (2001) – suggest to use the term ‘neoanalysis’. Here, I suggest that rather than *neo-* or *reanalyzing* anything, the learner *recognizes* patterns, draws analogies, and finally *categorizes* them in a certain way (see chapter 7 for the notion of ‘(re)alignment’).

Moreover, there is another problem when it comes to reanalysis/neoanalysis, since ambiguity cannot explain the introduction of syntactic innovations:

The notion of reanalysis suggests that a new category can be created *ex nihilo* on the basis of some structural ambiguity. This is problematic, however, because it is logically impossible for an innovation to be introduced on the basis of an ambiguity that strictly speaking exists only in retrospect – that is, after the change has taken place. (De Smet 2009: 1729)

The question remains where innovative structural representations come from ontologically. When it comes to reanalysis, more is involved than the syntactic representations and their syntactic ambiguities. The outcome of reanalysis is influenced by the language stage (the structure of the construction at time X) that exists prior to reanalysis. Also Fischer argues that

[i]f reanalysis can be said to take place [...], it takes place *after* an *analogical process*. I would argue that analogy is primary or at the least stands on an equal footing with reanalysis since a reanalysis, both a semantic-pragmatic and a structural one, takes place within the contours of the communicative situation *and* the grammatical system in which a structure operates. The reanalysis will therefore also be confined and shaped by the formal structures that already exist. My hypothesis is that a reanalysis of a structure will not as a rule result in a totally new structure, but in one that is already in use elsewhere (cf. also Itkonen 2005: 110–13). It is the superficial similarity (analogy) that a language user perceives between two structures and between two communicative uses of them that causes a reanalysis in one of them, so as to bring it in line with the other. The *perception of similarity* must be logically primary to the reanalysis. (Fischer 2007:123, [original emphasis])

The result of such a line of reasoning is that in many examples, reanalysis can easily be interpreted as analogy-based (Plank 2004; Kiparsky 2012), which directly relates to the ongoing discussion about the ‘primary’ status of either reanalysis or analogy in grammaticalization and constructional change. ‘Primary’ can be understood in two ways: on the one hand, as a temporal notion (‘prior’), on the other hand as an evaluative notion (‘most important’) (De Smet 2012: 629). I argue that analogy is ‘primary’ in both senses of the word.

Analogy and analogical thinking has long been understood as an important factor in cognition (Hofstadter 1995; Gentner et al. 2001; Antilla 2003; Itkonen 2005). Additionally, it has been positioned as a primary driving force of grammaticalization (Fischer 2007, 2008, 2009) and constructionalization (De Smet 2009, 2012). As extension is an important feature of many cases of grammaticalization

this has led to reconsider the role of analogy (Kiparsky 2012). Also Givón points out that

almost all creative-elaborate diachronic change in language, be it phonological, morpho-syntactic, semantic or discourse-pragmatic, is in principal analogical. That is, it involves the language user's recognition – conscious or subliminal – of similarities between two structural or functional contexts. (Givón 1991: 258, [original emphasis])

From a constructional point of view, it must be added that the speaker's ability to decode meaning by linking to various nodes across the network is essentially an ability to think analogically (Traugott and Trousdale 2013: 57).

Like reanalysis, analogy has been defined in many different ways, which often leads to confusion. The classical concept of analogy, which nowadays is termed 'four-part' analogy and which describes individual linguistic changes,⁷⁹ has recently been refined and conceptually upgraded to an explanatory mechanism. The term analogy has been widened to mean 'rule generalization/extension' and thus has been put on a higher metalinguistic level of analysis (Traugott and Trousdale 2010: 32, 36; Kiparsky 2012). In this book, the 'wider' conceptualization of 'creative analogy' will be employed. Analogy will be understood as a psychologically real phenomenon. It is a relation of similarity and a problem-solving "historical process which projects a generalization from one set of expressions to another" (Frawley 2003: 77). "When less central constructions or interpretations are subsumed under the central or prototypical one, it is natural to assume that the latter has been (analogously) extended to them" (Itkonen 2005: 24, [original parentheses]).

What makes analogy so attractive as a mechanism of change is that it is an important cognitive principle which also works in other domains thereby giving the theory an external explanatory base. We can postulate an innate faculty of analogizing that is not domain-specific (Itkonen 2005: xi; Fischer 2007: 84; Hofstadter 1995; Gentner et al. 2001). Studies have shown that pattern-finding is typical of primates. Primates learn about co-occurrence, succession and causation of things and events on the basis of analogy (Itkonen 1994: 45). For example, psychological experiments (Posner and Keele 1968; Medin and Schaffer 1978) reveal that when subjects are exposed to geometrical objects, patterns of dots, and drawings of facial features they are able to form categories based on similarity to a prototype that has never appeared in the experiment. Such studies highlight that similarity and frequency in experience, which lead the subject to draw certain analogies, determine categorization.

⁷⁹ Four-part analogy is often formalized as A: B = C: X (Campbell 1998: 91).

Also in the linguistic domain, an analogical action is performed when the individual (a) constructs similarities between two linguistic strings (generalization), (b) abstracts a more abstract pattern (analogical reasoning) and (c) extends this abstract pattern to a new instance (analogical extension).⁸⁰

The perception of similarity, or perhaps better the inability to see a difference [...] between two linguistic signs or between two referents, may cause the learner/speaker to shift such an element to another set in his processing system, a set that is functionally or formally close (this mechanism is often called ‘abduction’). (Fischer 2007: 324)

The speaker has a certain input available, which is categorized in a certain way. The speaker will try to align new (less prototypical) input with those existing categories.

Especially studies in language acquisition have shown how important analogy is (e.g. Bod 2006, 2009). In the brain of the child analogical processes are at work when the child acquires its first language patterns. Some researchers argue that most of the utterances a child produces cannot be produced purely by imitation, as this cannot account for the fact that children produce novel utterances which they have not heard before. Therefore, certain domain-specific mechanisms (which are part of UG) must be available to the child to build these phrases. Although the kind of mechanism which lies behind the ability to create novel utterances is still being disputed, cognitive approaches argue that the observed ability does not necessarily point to some Language Acquisition Device (LAD) as presupposed by generative linguists. It is more likely that very simple operating principles work on the input. An awareness of ‘same’ and ‘different’ – in other words the ability to draw analogies – may help children to produce novelties. Seen from that perspective, they are not really novelties, but extensions of some of the input they have heard most frequently before (Fischer 2007: 72–74). In other words, the imitation of existing patterns plays an important role. Analogy thus becomes “a principle of synchronic grammatical organization and language use, meaning that it is part and parcel of the cognitive abilities that speakers bring to the task of interpreting, producing, and even acquiring language” (De Smet 2009: 1731). This gives analogy a double status: a mechanism of change and a strategy of synchronic organization at the same time.

Research on ‘Analogical Modeling’ has so far concentrated on phonology, morphology and morphological change (MacWhinney 1978; Skousen 1989, 1992; Baayen 2003; Antilla 2003; Chapman and Skousen 2005; Itkonen 2005). Syntax,

80 The application to a new instance is of course done subconsciously. The speaker does not actively analyze the input.

however, has also been investigated (Anderson 2006; De Smet 2013). Itkonen and Haukioja (1997: 145–147) investigated analogical procedures when it comes to novelties in syntactic structure. They were able to show that complex syntactic structures can be induced by analogical extension on the basis of simpler patterns given in the learner's input and not necessarily on the basis of a presupposed UG. With his corpus-based computational experiments on the *CHILDES* database (Data oriented parsing-models; DOP), Bod (2006, 2009) has also shown that the acquisition of more complex abstract syntactic constructions and 'rule-based' aspects of language is possible on a probabilistic exemplar-based basis, where the frequency of input patterns determines which analogies are drawn and which syntactic structures are produced. Those models, driven by structural analogy, allow for productivity and meta-linguistic judgments and produce "a new sentence-structure out of *largest* as well as *most frequent* overlaps with structures of previously experienced sentences" (Bod 2009: 753, [original emphasis]).

Admittedly, analogy has also been criticized as an explanatory mechanism for historical changes. It is often difficult to judge the exact impact of a given analogical model on a given change (Lass 1980). Analogical reasoning is seen as being too vague and too unconstrained to enable the postulation of specific hypotheses about the direction of change (Lightfoot 2004: 743). Still, "the requirement of basic similarity still offers a criterion – if sometimes a frustratingly vague one – on what changes to expect and what changes to rule out, and in this way further contributes to explanatory adequacy" (De Smet 2009: 1749). Moreover, analogical change is not completely unconstrained. Which analogies are drawn is influenced by the frequency-sensitive processing system. If a pattern never or rarely occurs in a language, it is not very likely that the speaker will adjust his or her grammatical system around this pattern. Therefore, functional and formal analogy must be seen as one of the essential factors in language learning and change.

Analogy should be understood in two ways, namely as primary causal motivation and as a type of linguistic change at the same time. To highlight this difference, Traugott and Trousdale distinguish between the process of analogical thinking and the mechanism analogy which they call 'analogization'. This distinction highlights the difference between a motivation (thinking) and a change based on pattern match (mechanism). Analogical thinking 'enables' which means that it matches aspects of form and meaning but it does not necessarily result in change. In contrast, analogization brings about constructions that did not exist before (Traugott and Trousdale 2013: 38).

For Traugott and Trousdale analogical thinking is prior to most change and in that sense primary, whereas analogization is the reconfiguration of features of

a construction; as such it is not as important as neoanalysis, as there can be neoanalysis without analogization but no analogization without reanalysis (Traugott and Trousdale 2013: 58). Analogization is seen as a subtype of neoanalysis because the construction is still analyzed differently than its source (Petré 2015: 285).

In the following sections it will become obvious that I tend to agree with researchers like De Smet and Fischer that reanalysis is to some extent epiphenomenal as an independent mechanism of change. Observable reanalyses will only be seen as the epiphenomenal results of previous analogical processes which take place in the mind of the speaker. Following Traugott and Trousdale (2013), I also distinguish between analogical thinking and analogization. In section 7.1.1.1, I will postulate ‘a cognitive cycle of constructionalization’, which visualizes the cognitive, speaker-internal steps during constructionalization showing in detail how analogical thinking precedes neoanalysis.

4.2.5 Fuzzy Grammar: gradience and gradualness

When investigating a natural language, it can be observed that on the one hand the system is constantly changing through being used and that on the other hand the categorization of linguistic elements is often difficult and fuzzy. In order to describe a linguistic system, elements which behave similarly are usually classified and categorized. However, not all members of a category exhibit exactly the same behavior. This was also shown in chapter 2, where the definite article in Present Day English fulfills all the listed criteria for articlehood but the indefinite one does not (see section 2.4). It is mostly debatable which categories should be used to model a particular grammar. Moreover, it is generally a difficult task to define a linguistic category. A clear categorization of an element is often simply impossible and not every member of a category displays every syntactic or semantic property ascribed to the category because category membership is historically unstable. Elements can change their category status in time (e.g. demonstrative > article). Thus, any good model needs to be able to accommodate “the pervasive gradience in linguistic categorization” (Fried 2013: 423). Categories are “notational tools [which are] abstract idealized means of reflecting syntactic and pragmatic differences between seemingly similar constructions” (Keizer 2007: 3). They are “systematic and idealized representations of the way we believe grammar to be mentally constituted” (Aarts 2004: 3). Therefore, in a usage-based approach it is always debatable which categories should be used to model a particular grammar.

Diachronic Construction Grammar accepts the fact that category membership is gradient and it postulates that many categories are not universal but language specific (Croft 2001, 2007). All syntactic categories are epiphenomenal entities which are rooted in discourse and which vary across and within languages (Van de Velde 2010: 267; cf. Bybee 2003a,b; Hopper and Traugott 2003). Gradualness is responsible for the phenomenon of gradience in synchrony. “[A]s change is gradual, the categories and units of language are variable and [...] form gradient rather than strictly bounded categories” (Bybee 2013: 50).

In traditional descriptions of grammar, categories are mostly derived by means of formal/distributional and semantic criteria. When categorizing, grammarians mostly insist on “Aristotelian categories with necessary and sufficient conditions for membership and hard-and-fast boundaries” (Denison 2006: 279).

[M]any schools of modern linguistics generally adopt a rigid approach to categorization by not allowing degrees of form class membership, degrees of resemblance to a prototype or overlaps between categories. This all-or-none conception of categorization (Bolinger 1961) goes back to Aristotle, and has been pervasive and influential, especially in formal linguistics. (Aarts 2004: 1)

Normally, any category is “defined by a basket of properties [with no] intermediate possibility between categories [which leads to] unique constituent analysis of each sentence” (Denison 2006: 282). Often, however, a clear categorization of an element is simply impossible and therefore Aristotelian categories have been called into question by several linguists (e.g. Denison 2006; Croft 2007). As a matter of fact, not every member of a category displays every property of this category. To deal with this problem, some researchers postulate more and more categories or subcategories to account for every occurring linguistic pattern. An example of this strategy would be the postulation of a postdeterminer category as a category in between determiners and modifiers floating between the two categories (Quirk et al. 1985: 253–264).

An alternative strategy is to propose ‘gradience’ in grammars. The term gradience is used in different ways in linguistic discourse. It is a “grammatical notion which refers to the (perceived) interlacing of the categories in language systems” (Aarts 2004: 5); in other words, it concerns the nature of boundaries between categories and the question of how the members within the category are being organized (Traugott and Trousdale 2010: 20). Some members of a category are conceived of as being ‘better’ than others so it has been suggested that more prototypical/central and less prototypical/peripheral members of each category exist – allowing for degrees of membership (Quirk et al. 1985: 90; Plank 1992; Denison 2006). Such a suggestion corresponds to ‘goodness of exemplar’ or to

‘degree of membership’ in prototype theory (Denison 2006; Aarts 2004, 2007a,b; Rosenbach 2006; Croft 2007).

One scholar who has dealt with syntactic gradience is Aarts (2004, 2007a,b), who understands gradience as “an undeniable property of any categorical system, including grammatical descriptions” (Aarts 2004: 3). In his work, he makes some further distinctions. He distinguishes between ‘Subjective Gradience’ (SG), which is “intracategorical in nature and allows for members of a class to display the properties of that class to varying degrees” (Aarts 2004: 1), and ‘Intersective Gradience’ (IG) which is characterized by two form classes which ‘converge’ on each other. Subjective Gradience “allows for a particular element x from category α to be closer to the prototype of A than some other element y from the same category, and recognizes a core and periphery within the form classes of the language” (Aarts 2004: 6). Intersective Gradience, on the other hand, “obtains between two categories, such that they gradually converge on one another by virtue of the fact that there exist elements which display properties of both categories” (Aarts 2004: 6).

Aarts bases his distinction on a morphosyntactic and distributional approach and claims that SG is much more frequent than IG. He subsequently defends a position that allows for gradience but keeps up “sharp boundaries between categories” (Aarts 2004: 1).

[G]rammatical form classes can be strictly kept apart while allowing for them to ‘converge’ on each other. Convergence occurs when an element α from class A displays morphosyntactic properties of another distinct form class B. Unless the B-like properties of α outweigh the A-like properties, α will be assigned to class A. (Aarts 2004: 3)

By doing so he tries “to find a middle ground between formalists who marginalize gradience to the periphery of grammatical analysis, and functionalists who believe that gradience is central because it is so widespread in grammars” (Traugott and Trousdale 2010: 30–31). Aarts has been criticized for his distinction of IG and SG by several researchers (Croft 2007).

Especially in diachronic syntax, where grammaticalization and gradualness are extensively researched, linguists are fully aware that the discussion about the synchronic (gradient) architecture of grammars interacts with the gradual changes observed in grammaticalization; change manifests itself in synchronic variation (Andersen 2001: 228). The phenomenon of grammaticalization is the reason why syntactic categories are considered to be gradient (Hopper 1987; DeLancey 1997; Bybee and Hopper 2001). Haspelmath points out that “since grammaticalization is generally regarded as a gradual diachronic process, it is expected that the resulting function words form a gradient from full content

words to clear function words” (Haspelmath 2001: 16539). Traugott and Trousdale propose to see “gradualness as in some way a diachronic dimension of gradience” (2010: 26). In diachronic processes of category change (often a grammaticalization process where elements are ‘recruited’ for a new function), elements show differences in progress in this transition. Elements can be grammaticalized to a higher or lesser degree, which also means that at a particular point in time it may simply be impossible to decide whether a linguistic element in a particular context, for example, is still a numeral or an indefinite article.

Although some elements do not fit their categorical profile perfectly, this does not need to be an argument for abandoning categories altogether. In short, some kind of categorization is always necessary if a linguist wants to describe a linguistic system properly. However, if we want to employ the notion of categories in the description of grammar, the goal must be to delimit them clearly somehow. It is important to set up clear criteria for one or the other category. Especially those elements that represent the prototype of the category should be demarcated clearly (see criteria for articlehood in section 2.4). At the same time, we must also accept that sometimes assigning category membership will not be possible. This relates to another point which was already made in the previous chapters. When it comes to setting up characteristic criteria for a certain category, the essential question is which properties are relevant for category membership. Another question is if the relevant properties are equally important. Some properties may have a so-called higher ‘clue validity’ than others, which means that this property is a highly reliable clue to assign category membership (Taylor 2003: 36).

At the end of this section I would also like to draw the reader’s attention to the following point: when asking for the relevant properties for category membership it may not be the best decision to demand the fulfillment of a specific morphological criterion. It may also not always be possible to find some semantic property which all category members share. Often, the main criterion for why certain linguistic elements are considered members of a particular category is that they behave similarly with regards to how they are recruited into larger constructions. Certain categories can function as slotfillers for specific functional slots in more complex (abstract) constructions. For example, in the comprehensive grammars of English several linguistic elements are classified as determiners. Not so much because they are so similar in terms of their meaning or function but primarily because they can take the position of a slotfiller in the determiner slot in NP constructions.

4.3 Concluding remarks: the constructional contribution

This chapter has discussed the most important commitments of a usage-based, cognitive constructional approach to language as well as its usefulness for diachronic research. To conclude the chapter, I would like to make one more comment on Diachronic Construction Grammar as a new field. As this branch of construction grammar is still a younger enterprise than the synchronic branch, many meta-theoretical questions have not been answered yet. One of these fundamental questions is whether the diachronic branch of Construction Grammar can be a fruitful endeavor without placing cognition and psychological reality/plausibility at the center of discussion (Hilpert forth.). On the one hand, its aim has been defined as the “historical study of constructions” (Barðdal and Gildea 2015: back cover) looking for their occurrence “in specific types of [performative] usage events” (Fried 2015: 140) with a rather descriptive focus on which constructions exist, when they arise, and how they formally or semantically change over time. On the other hand, Diachronic Construction Grammar with a cognitive outlook focuses on psychological underpinnings and aims to “make statements about the [internal] linguistic knowledge of earlier generations of speakers” (Hilpert forth.). Note that these two goals are not equivalent and many diachronic scholars seem to feel more comfortable when collecting and indexing constructions of a particular language at a particular point in time, without discussing the cognitive motivations for their emergence, loss or change.

In contrast to that, I believe that linguistic change “provides an important window into the understanding of the cognitive processes underlying language” (Bybee 2013: 50). Because of that Diachronic Construction Grammar should focus on the mental processes hypothesized to be involved in linguistic change. The uniformitarian principle allows us to assume that the same cognitive processes that operate in the mind now have operated in the minds of speakers 1000 years ago and – after all – language change starts in the mind of individual speakers. In other words, Diachronic Construction Grammar should take the cognitive commitment seriously. Discussing cognitive factors that trigger language change in an informed, systematic manner is definitely one of its added values.

Construction Grammar models have been criticized for selling old wine in new skins and for simply listing constructions in an ‘anything goes’ manner (e.g. Leiss 2009). This, however, could not be farther from the truth. First of all, it is no shame to incorporate findings from other schools of thought (e.g. functionalism), areas (e.g. psycholinguistics, neurolinguistics, cognitive science) or traditional thinking (e.g. Ferdinand Saussure’s sign concept or Herman Paul’s thoughts on the importance of analogy). Second, one of the most fundamental and ‘original’ contributions of Construction Grammar is the idea that constructions are not

simply listed but are arranged in networks. Theorizing about the nature of the network – its node design and the changes between those nodes – is crucial and one of the most important aspects for a diachronic linguist working with Construction Grammar. Sketching such network structures enables the researcher to show very elegantly how a change in one construction may affect the whole network (i.e. the linguistic system).

After this introduction to diachronic constructionalist thinking it is now time to tackle the specific phenomenon investigated. Chapter 7 will apply constructional thinking to the case of the emerging articles in Old English. I will come back to many of the ideas which have just been presented. However, before any constructional network of OE referential NPs can be sketched, the next two chapters present the findings from an extensive corpus study on various nominal determination patterns.

5 Nominal determination in the *Anglo-Saxon Chronicle*

Even when Old English patterns are quite distinct, we still have data for only one limited set of styles and registers. [...] Our statements about English before AD 800 are essentially reconstructions informed by a smattering of information. (Toon 1992: 415–428)

Chapter 5 and 6 of this book constitute the empirical investigation. The data analysis and its results will shed new light on nominal determination and (in)definite NP constructions in Old English. The overall goal of the next two chapters is to trace the diachronic development of *se* and *ān* qualitatively but also quantitatively by analyzing several OE prose texts from early to late Old English. Only a quantitative analysis of a larger data set can show how plausible the theories on article emergence, which were presented in chapter 3, really are. So far, not many existing studies on the OE noun phrase have tested their assumptions against a large, computer accessible text sample using inferential statistics. Therefore, a frequency-based analysis is needed to understand OE NP structure better. In general, the researcher should never take handbook statements for granted. Very often, reported instances of certain patterns allow for an alternative interpretation or a different kind of translation than the one that is sometimes given. In addition, the examples are often listed without context, so we cannot analyze their contextual embedding or their discourse-pragmatic function on the basis of these lists. Another important factor, which is often missing in the handbooks, is a discussion of frequency. How we model OE grammar should be based on the frequency of certain patterns. The existence of a small number of interesting ‘exceptional’ patterns does not necessarily indicate that they are representative of the grammatical system in use. Those instances might be scribal errors, typos, frozen expressions, highly marked stylistic (poetic) devices or simply archaic forms which represent an older language stage. This relates to the crucial question in quantitative analysis of how many instances of a certain pattern a linguist needs to find in order to legitimately assign productive status to such a pattern. Especially for a usage-based constructionalist approach, which highlights the importance of frequency and analogy, quantitative results are especially important. To elicit the data, the *Corpus Search* program was used to investigate the chosen manuscripts from the *YCOE* corpus. For statistical analysis *R* was used.

The issue at hand is whether *se* and *ān* already functioned as articles in Old English or whether they took on that role later in Middle English. This question

will be tackled by (a) investigating the distribution of several definite and indefinite NP constructions and by (b) testing and evaluating the criteria for articlehood, which have been set up in section 2.3. It remains to be seen if and how the criteria are met by the forms *se* and *ān* in various early and late OE texts. Ultimately, it will be argued that not all criteria are useful to demarcate the category. It will be shown that article development is a gradual process in which the forms *se* and *ān* slowly but steadily change their semantic and syntactic behavior.

As a first step in the empirical investigation, the *Peterborough Chronicle* (henceforth also PB) and the *Parker Chronicle* (PA) were analyzed. Several search queries were run to determine the frequency of some basic determination patterns in the prehead of the noun phrase (position and occurrence of determinatives) in those two manuscripts. In section 5.2, those patterns will be discussed. In this section, two constructions will receive special attention, namely [DEM+CN]_{NPdef} and [DEM+ADJ+CN]_{NPdef} where the head noun is not only determined by a determinative but also modified by an adjective. Analyzing this construction can shed light on the question whether the erosion of adjectival inflections has supported the development of the articles; a hypothesis which was presented in section 3.2.1.

Additionally, I will investigate whether within a single document (which was compiled over several decades) a quantitative change in demonstrative usage can be observed. In the literature it is claimed that the frequency of *se* increases steadily from Old English to Middle English and that this increase is a direct result of and evidence for the emergence of the form's article function. The aim of section 5.3 (and later chapter 6) is to find empirical evidence for this increase. This is done by splitting up the two chronicles into subperiods. The *Anglo-Saxon Chronicle* is a composite document; a collection of annals written by different scribes who added text throughout the years with changing styles. This makes the chronicle a testament of linguistic diversity and change, which is why it should be possible to observe diachronic changes within this one document only.

The status of *ān* will be discussed in section 5.4. I will investigate how often and in what way the form is used in the *Peterborough* and *Parker* manuscript. Finally, in section 5.5, I establish if and to what extent the criteria for articlehood are useful and met by the two forms. Only afterwards, I will investigate other OE prose texts (chapter 6).

5.1 Manuscript information

Before any empirical results are presented, some background information about the two manuscripts needs to be provided. The *Anglo-Saxon Chronicle* is a collection of annals in Old English telling the history of the Anglo-Saxon tribes. It is likely that the chronicle had its origins towards the end of the ninth century during the reign of King Alfred the Great (871–899), who is characteristically associated with prose writing at that time and who is said to have ordered the compilation of the chronicle (Hunter Blair 1966: 12). The chronicle is of enormous importance as it is one of the earliest fundamental cultural documents compiled in English. It is the first continuous national history of any western people in their own language and it seems that “at this time no other European nation apparently felt confident enough in its own language to record its own history” (Swanton 1996: xx). In other words, the chronicle is the single most important source for the historical period between the departure of the Romans and the Norman Conquest (Hunter Blair 1966: 11).

The chronicle does not consist of one text, but of a number of individual texts with a similar core but considerable local variation, each having its own history. Nine manuscripts, of which none is the original version, survived in whole or in part. The original chronicle might have been compiled in the early 890s by a scribe in Wessex but was lost (Abels 2005: 15). Seven of the nine manuscripts today can be found in *the British Library*. The other two are kept in the Bodleian Library, Oxford and the Library of Corpus Christi College, Cambridge.

Essentially, the *Anglo-Saxon Chronicle* grew out of so-called ‘Easter Tables’. With the use of these list-like tables, consisting of separate lines for astronomical data and very short notes, the clergy determined religious feasts in future years. It is a composite document using several sources for information. Records of world history from the beginning of the Christian era to the year 110 probably came from one of the small encyclopedic volumes similar to the Roman ‘cosmography’. Other annals were transferred from Bede’s chronological appendix in the *Ecclesiastical History*. Continental sources and even oral traditions are incorporated. Apart from a few exceptions, the annalists are anonymous and usually impersonal (Swanton 1996: xx). Through the course of time – from the 9th to the 12th century –, one can witness a change in the prose; the text changes from listing brief announcements to lively sketches of dramatic events. From 890 onwards, entries become fuller, more complex and more coherent in terms of content. The style becomes increasingly personal and colloquial with annalists even taking sides (Swanton 1996: xvii).

5.1.1 The Parker Chronicle

For this book two of the nine manuscripts were chosen for detailed analysis.⁸¹ The first is the *Parker Chronicle*, also called the *Winchester Manuscript (A)*, which once belonged to Matthew Parker, archbishop of Canterbury 1559–1575. Today it is held in the Library of Corpus Christi College, MS 173, ff.I–32 and is the oldest surviving manuscript of the chronicle. The *Parker Chronicle* mirrors the oldest linguistic stage available to researchers of Old English, because it “was not brought into conformity with the late West Saxon literary standard” (Swanton 1996: xxi; Bately 1986: lxxii).⁸² The text also includes certain sections which are not included in any other version. The manuscript was begun at Old Minster, Winchester, when a scribe wrote out the genealogy of King Alfred (Swanton 1996: xxi). The first chronicle entry is for the year 60 BC and the scribe stopped with the year 891. After that several other scribes continued through the tenth century (Bately 1986: xxi). The manuscript gives an account of the Danish invasion during the reigns of Alfred and his son Edward until 924.

The *Parker Chronicle* also includes a copy of the *Laws of Alfred* and the *Laws of Ine* which were originally bound in after the entry for 924. Moreover, it includes four poems in traditional alliterative verse (Swanton 1996: xxi). The manuscript becomes independent of the other texts after the entry for 975 and the last vernacular entry is for 1070, describing the institution of Lanfranc as archbishop of Canterbury. “With the exception of a relatively long entry for 1001 (describing Danish raids in Hampshire and Devon), the later entries are typically scant, single-line, single-event, formulaic entries, but valuable because independent of other recensions” (Swanton 1996: xxii).⁸³

5.1.2 The Peterborough Chronicle

The other manuscript which is studied is the *Peterborough Chronicle*, which was once owned by William Laud, Chancellor of Oxford University and archbishop of Canterbury (1633–1654). Therefore it is also known as the *Laud Manuscript (E)*.

⁸¹ As already mentioned in the introduction, I analyzed the manuscript files in the YCOE corpus (cochronE.o34; cochronA.o23) which are based on Plummer (1965).

⁸² Here it makes sense to speak of a kind of *Schriftsprache* [written language] rather than a standard.

⁸³ For further details on different scribes and passages in the *Parker Chronicle* see Plummer (1952) and Bately (1986).

The chronicle is currently held at the Bodleian Library, MS Laud 636.⁸⁴ Generally, the *Peterborough Chronicle* was maintained longest, its earliest entries refer to 60 BC down to 1154 (ME times) (Irvine 2004: xiii).

Down to the close of 892, the *Peterborough Chronicle* embodies the contents of the *Parker Chronicle* or, to be precise, the ‘common stock’ of the chronicle, known as ‘the first chronicle’, which is not only incorporated in the *Parker Chronicle* (A) but also in manuscripts (B) and (C). An exception is the *Peterborough*’s preface where it follows the Worcester manuscript (D).⁸⁵ Additionally, various charters and local details about the Peterborough Abbey were included that are not found in other versions.⁸⁶ Especially after 1023, the *Peterborough Chronicle* becomes more original and fewer northern events are described (Swanton 1996: xxvi; Irvine 2004: xxxvi; Plummer 1962).

Generally, the manuscript can be split up into three main parts: (a) the entries up to 1121, and the so-called ‘two continuations’; (b) 1121–1131 and (c) 1131–1154. The entries up to 1121 are all “in a homogeneous hand and ink” (Clark 1958: xi) and thus are considered to be written by one scribe continuously. At first glance, it may seem exceptional that authorship in the *Peterborough Chronicle* has been ascribed to one hand down to the entry for 1121 (Earle 1865: xliii). This relates to the fact that in 1116 there was a fire at the Peterborough monastery and the original manuscript supposedly was destroyed. However, shortly after the fire an unknown manuscript was borrowed, possibly from a Kentish library, which was copied up to date, so that one finds a new chronicle with the year 1121. In other words, one scribe worked on the manuscript more or less continuously; first he brought the manuscript up to date and then he continued over the following ten years to add new material (Irvine 2004: xix; Clark 1958: xi).

Whereas the so-called first continuation (1122–1131) is still written in late Old English, the second continuation shows mixed forms and is written in what is considered to be an early form of Middle English. The first continuation is detailed and has unique records of events in the area as well as insights into the life of ordinary people. It records the Norman Conquest as well as ecclesiastical scandals. After 1131 the manuscript was laid aside. The second continuation (1132–

⁸⁴ <http://www.bodley.ox.ac.uk/dept/scwmss/wmss/medieval/mss/misc/12th.htm>

⁸⁵ Although the manuscript has some elements in common with the northern version of the Worcester manuscript it makes no use of the Mercian Register and omits the Brunanburh panegyric.

⁸⁶ Also the chronicle contains thirty-eight Latin entries, which occur sporadically through the manuscript up to 1062. Those entries mostly deal with universal and English ecclesiastical history and are very uniform in style (Irvine 2004: lxxxviii). The Latin entries are not analyzed in this project.

1154), was written as a composite account about 25 years later by a second scribe in a completely different hand who brought things up to date at around 1155. All in all, the two continuations stand on their own in terms of information, style and language (Clark 1958: xii; Ker 1957; Irvine 2004). For this study, however, only the part of the chronicle down to 1121 will be analyzed, as the continuations are not available in the *YCOE* corpus but only in the *PPCME2*, which is tagged slightly differently (especially when it comes to nominal determination) and thus output structures often cannot be compared.

The two manuscripts have been chosen as examples of Old English because they are secular prose, not translations and are available in a tagged format. On top of that, the idea was to split up the texts into diachronic periods in order to investigate the emergence of the article as a diachronic process throughout the centuries (see section 5.5 for details). With respect to this idea, one objection comes to mind immediately. The *Peterborough Chronicle* was rewritten in 1121 by one scribe and as a consequence this scribe might have changed ‘older’ grammatical structures to conform to the linguistic norms of 1121 while copying. Therefore one could argue that if the *Peterborough Chronicle* mirrors some language stage it is the one of 1121 and no other. The essential question then is if the text can be split up into meaningful diachronic subperiods at all? This only seems reasonable if we assume that the scribe was faithful to the original and did not hypercorrect. To answer this question is difficult. The text shows some peculiarities of the scribe and sometimes slightly differs from that of other manuscripts (Irvine 2004: cviii–clxv). So it is difficult to distinguish reliably between any differences which have arisen as a result of variation due to historical transmission and those differences which may have been introduced by the scribe (Irvine 2004: clx).

Several researchers attest a faithful copying process. For example, Irvine does not identify any peculiarities for the demonstratives and points out that the scribe “seems to have copied fairly faithfully the morphology of the exemplar or exemplars used [...] since morphological practices vary according to the different sections” (Irvine 2004: cxxxix; Allen 1995: 170). Clark also remarks on the general conservatism of the “inscrutably conventional copied annals” (1958: xl) and states that the part up to 1121 “represents the immediate original fairly faithfully” (1958: xxxv). Trusting such statements, I believe that to split up the text is possible.

5.2 Basic determination patterns

As *se* and *ān* are part of the prehead (when functioning as determinatives), I analyzed the OE prehead rather than posthead structures. The elements which are

mostly used to mark definite reference in Old English are demonstratives, possessives, but also genitive constructions. As these determinatives mostly combine with common nouns, such constructions were primarily examined although I will also briefly discuss combinations with proper nouns. Table 17 lists the definite and indefinite NP constructions searched for in the two manuscripts. Of course, many other noun phrases with more complex or different prehead elements exist (e.g. NPs with quantifiers, binominal constructions,...). For this study, however, I limited myself to the following noun phrases:

Tab. 17: Definite and indefinite NP constructions in the *Peterborough* and *Parker Chronicle*

nominal determination patterns		PB (40,641 words)		PA (14,538 words)	
	construction	Hits	% of CNPs	Hits	% of CNPs
a)	NPs total (incl. Pro, PN, CN)	15972		6208	
b)	CNPs (incl. def., indf., non-referential)	6093		2140	
c)	PNPs	2865		1756	
d)	Dem + CN	2026	~33.4%	562	~26.3%
e)	Poss + CN	531	~8.7%	135	~6.3%
f)	Genitive Phrase + CN	534	~8.8%	262	~12.2%
g)	Dem + Adj + CN	258	~4.2%	119	~5.6%
h)	Dem + Poss + CN	0		0	
i)	Poss + Dem + CN	0		0	
j)	Dem + Poss + Adj + CN	1(0)	~0.01%	0	
k)	Poss + Dem + Adj + CN	2	~0.03%	0	
l)	Adj + Dem + CN	1	~0.01%	1	~0.04%
m)	Dem + PN	79	~2.7%*	38	~2.2%
n)	<i>ān</i> + CN	84	~1.4%	40	~1.9%
o)	<i>ān</i> + CN (excl. numeral usage)	29	~0.47%	14	~0.65%
p)	<i>ān</i> + Adjective + CN	9	~0.14%	4	~0.2%
q)	Adjective + <i>ān</i> + CN	0		0	
r)	Poss/Dem + <i>ān</i> + CN	2	~0.03%	1	~0.04%

*% among c)

First, and as a base line, I extracted how many noun phrases occur in the texts, zooming in on the ones which have a common noun and a proper noun as their head (a–c). The OE part of the *Peterborough Chronicle* consists of 40,641 words. The text includes 15,972 NPs. Among those we find 6093 CNPs (i.e. noun phrases with a common noun as head) and 2865 PNPs (i.e. noun phrases with a proper noun as head). The *Parker Chronicle* (14,583 words) includes 6208 NPs with 2140 CNPs and 1756 PNPs.⁸⁷

Second, I searched for simple, definite noun phrases which are still well established in Modern English (d–g). Note that these basic constructions are all rather frequent in Old English as well. However, from (h) onwards, I was searching for ‘deviant’ patterns which show that the OE system of nominal determination differs from the modern one. Some of these constructions are considered ungrammatical in Present Day English. Finally, instances of *ān* in different combinations with a common noun were searched for (n–r).

For all of the conducted searches, the query files were written in such a way that the particular structure searched for can sometimes be preceded by several further elements or followed by other elements within the noun phrase. The focus always lies on the noun and the simple question is how many times certain elements hold the position immediately preceding it. This is why the patterns in Table 17 should not be interpreted as ‘complete’ constructional schemata in the sense that the head noun may be followed by a posthead. Still, I have decided to use the term ‘constructions’ but I sometimes speak of combinations or combinatorial patterns as well.

5.2.1 *Se* as the most frequent determinative

In the *Peterborough Chronicle* the construction [DEM+CN]_{NPdef} occurs 2026 times. 33.4% of all CNPs have this structure:

- (93) þa noldon hi faron ofer **þone ford**
 then would not they cross over **the/that ford**
- ‘then they would not cross the river’
 (cochronE,ChronE_[Plummer]:0.30.27)

⁸⁷ As the *YCOE* corpus is not tagged for number (no singular vs. plural distinction), the hits always include singular as well as plural nouns.

- | | | | |
|------|----------------------------------|---|---|
| (94) | And ic Oswi
<i>And I Oswy</i> | Norþthimbre kyning
<i>Northumbria's king</i> | þeos mynstres freond
<i>this minster's friend</i> |
|------|----------------------------------|---|---|

'And I, Oswy, King of Northumbria, friend of this minster'
(cochronE-INTERPOLATION,ChronE_[Plummer]:656.95.457)

The numbers given in Table 17 include all case combinations, including genitive NPs like *þeos mynstres* (ex.94), which themselves are often embedded in another noun phrase and function to determine a separate head (*freond*). Also the numbers include both demonstratives: all forms of *se* (simple demonstrative) and *þes* (proximal compound demonstrative). Both demonstratives are represented in Table 17 because at this stage of the investigation the number of all demonstratives (the complete set) is compared to the number of the other determinatives (i.e. possessives and genitive phrases). Note that later on (section 5.3) forms of *þes* will be excluded from the calculations when necessary. This choice was made as some scholars argue that the definite article did not derive from the compound demonstrative *þes*. Nevertheless, the development of the compound demonstrative will be investigated in a separate section, because any potential increase in the usage of *þes* may be used as indirect evidence for article emergence. This will be elaborated on in section 5.3.2 (also see Mustanoja 1960: 173; Mitchell 1985: 136; Lass 1992: 114).

In Table 17, row (e) and (f) also reveal that [DEM+CN]_{NPdef} constructions are about four times higher than [GenP+CN]_{NPdef} (e.g. *that king's harm*, 534 hits) or [POSS+CN]_{NPdef} (e.g. *their castles*, 531 hits):

- | | | | |
|------|---------------------------|--|--|
| (95) | heom
<i>to them</i> | to þæs cynges hearme & swicdome
<i>to the/that king's harm and betrayal</i> | heora castelas
<i>their castles</i> |
| | ageafon
<i>gave up</i> | | |

'To the king's harm and betrayal, they gave up their castles to them'
(cochronE,ChronE_[Plummer]:1118.6.3594)

[GenP+CN]_{NPdef} and [POSS+CN]_{NPdef} constructions each add up to about 8.7 % of all CNPs. The situation is similar in the *Parker Chronicle*. There, [DEM+CN]_{NPdef} occurs 562 times, which amounts to 26.3 % of all CNPs (2140 hits). The [POSS+CN]_{NPdef} construction with 135 hits adds up to 6.3 % and the [GenP+CN]_{NPdef} construction adds up to 12.2 % (262 hits). This shows that the demonstrative *se* is the most frequently used determinative to mark definite reference overtly. In other words, the concept of possession is less often expressed than the concept of deixis. Of

course, we do not know whether deixis is still expressed in all those cases or if the semantic notion has bleached and the demonstrative is exclusively used as a marker of definite reference. Still, the fact that [DEM+CN]_{NPdef} is already a highly frequent pattern in the grammar will be essential for the line of reasoning to be outlined in chapter 7. In contrast to the [DEM+CN]_{NPdef} construction, use of a demonstrative with a proper noun is extremely rare. In the PB, [DEM+PN]_{NPdef} occurs 79 times (ex.96–99)⁸⁸; only 2.7% of all PNPs. The PA shows very similar results with 38 hits (2.2% of all PNPs).

- (96) **se Cynewulf** rixade xxxi wintra
the/that Cynewulf ruled thirty-one winters

‘That Cynewulf ruled thirty-one winters’
 (cochronE,ChronE_[Plummer]:755.39.775)

- (97) & **seo Æglbriht** onfeng Persa biscopdomes
 and **that Agilbert** received the bishopric of Paris

on Galwalum be Sigene
 in Gaul on the Seine

‘And that Agilbert received the bishopric of Paris in Gaul on the Seine’
 (cochronE,ChronE_[Plummer]:660.1.493)

- (98) Ða ferdon þa Pihtas
 Then went the Picts

‘Then the Picts left’
 (cochronE, ChronE_[Plummer]:0.13.12)

- (99) & **seo Myrcene biscop,** Ieruman wæs gehaten
 and **that Mercians bishop,** Jaruman was called

‘and that bishop of Mercia was called Ieruman’
 (cochronE-INTERPOLATION,ChronE_[Plummer]:656.29.409)

These results include cases with plural nouns as well. Such a construction still exists today (ex.98). Also the results include examples like in (99) where the

88 And 20 hits for [DEM+ADJ+PN]_{NPdef}, e.g. & *se ylca Raulf*_{NOM-SG-MASC} *wæs Bryttisc on his moderhealfe*. ‘and the same Ralph was British on his mother’s side’ (cochronE,ChronE_[Plummer]:1075.1.2693).

proper noun takes a genitive ending, so that the demonstrative determines the following common noun head rather than the proper noun. If one excludes all these examples (e.g. *the Scots*, *the French*, names of places, etc.), only 28 instances in the PB and 30 instances in the PA remain which show a combination with a singular personal name. The infrequency of this combination has been explained by the fact that a name is inherently definite on its own and does not need overt definiteness marking. If a speaker combines *se* with a proper name, it obviously functions to express some deictic or intensifying relation.

5.2.2 *Se* in NPs with adjectival modification

Another pattern which was analyzed is how *se* combines with modifying adjectives. This combination is discussed extensively in the literature. The breakdown of the weak/strong distinction in the adjective paradigm has frequently been made responsible for article emergence (see section 3.2.1.4). The handbooks tell us that an attributive adjective is declined weak if preceded by a demonstrative (*se*, *þes*) or by a possessive (e.g. *min*, *his*) but strong without one of these elements. In other words, [DEM+ADJ]_{weak}+CN]_{NPdef} is the template for definite NPs and [ADJ]_{strong}+CN]_{NPindef} is the one for indefinite NPs.^{89, 90}

Compare the following Table 18, which has already been shown in section 3.2.1.4 and which is repeated for convenience:

89 With adjectives, the handbooks also differentiate between prehead and posthead modification. OE adjectives could occur either prenominally or postnominally (Quirk and Wrenn 1958: 88–89; Mitchell 1985: §132; §159–174). Regarding postposition, we find 8 valid examples where the adjective is postponed to the head noun in the PB and 2 in the PA. In the PB, in 7 out of 8 cases the slot before the head noun is filled with another element. E.g. *on þe ea hi tugon up heora scipa oð ðone weald iiii mila fram þam muþan utanweardum* ‘They pulled their ships up to the forest 4 miles from the external mouth’ (cochronE,ChronE_[Plummer]:892.8.1324), or *Ða genamon þa Walas. & adrifon sumre ea ford ealne mid scearpum pilum greatum innan þam wetere*. ‘Then the Britons went and staked all the ford of a certain river with great sharp stakes in the water’ (cochronE,ChronE_[Plummer]:0.28.25).

90 As a matter of fact, the alternative [Dem+ADJ]_{strong}+CN] exists in some exceptional cases. For example, the OE adjective *oðer* is always declined strong even after demonstratives (Campbell 1959: 261). Also weak forms of *eall*, *monig*, *genog* etc. are very rare. *Fela*, *gewunga*, *bewunga* are indeclinable. The comparative and the superlative in *-ma* are only declined weak. Additionally, one exception is the vocative, where the adjective is declined weak in both prose and poetry when used without a demonstrative or possessive (Mitchell 1985: §115–117). When a genitive phrase precedes the adjective noun combination, it is followed by the weak form of the adjective (Mitchell 1985: §113).

Tab. 18: Strong and weak adjectives in Old English (Fischer 2000: 159)

	strong adjectives			weak adjectives		
	masc	neut	fem	masc	neut	fem
nom.sg	-	-	-/-u	-a	-e	-e
acc.sg	-ne	-	-e	-an-	-e	-an
gen.sg	-es	-es	-re	-an	-an	-an
dat.sg	-um	-um	-re	-an	-an	-an
nom.pl	-e	-/-u	-a/-e	-an	-an	-an
acc.pl	-e	-/-u	-a/-e	-an	-an	-an
gen.pl	-ra	-ra	-ra	-ra/-ena	-ra/-ena	-ra/-ena
dat.pl	-um	-um	-um	-um	-um	-um

In this section I take a closer look at this claimed regularity in the *Peterborough Chronicle* and check how the demonstrative combines with the adjective. Is it really the case that the weak adjective is always used with the demonstrative and the strong one without it? The frequency of potential adjectival combinations must be checked because, as I argued in section 3.2.1.4, only a high frequency of [DEM+ADJ_{weak}+CN]_{NPdef} would make it a pattern which is strong enough to influence the system of nominal determination effectively.

As can be seen in Table 17, 258 hits for the [DEM+ADJ+CN]_{NPdef} pattern can be found in the *Peterborough Chronicle*. In the vast majority of cases the demonstrative is followed by a weak adjective. For instance, in example (100) and (101) the masculine sg. nominative *-a* ending and the masculine pl. accusative *-an* ending belong to the weak adjective paradigm.

- (100) Her **se eadiga apostol** Petrus geset biscopsetl
Here [at this date] the/this blessed apostle Peter occupied bishop's seat

on Antiochia ceastre
in Antioch city

'Then the blessed apostle Peter occupied the bishop's seat in the city of Antioch'
(cochronE,ChronE_[Plummer]:35.1.46)

- (101) furðon on **þa wildan fennas** hi ferdon.
even into the/those wild marshes they travelled

'They even travelled into the wild marshes'
(cochronE,ChronE_[Plummer]:1010.11.1779)

Out of 258 instances (excluding special adjectives like *oðer*, etc.), only 13 examples can be found where we unexpectedly find a strong adjective ending in the combination. This amounts to 5% of all cases. Some of them are listed here (ex.102–107):

- (102) on oðrum wes Basecg & Halfdene, **ða hæðene ciningas** (NOM-PL-masc.)
in another were Bagsecg and Halfdan, the/those heathen kings

‘In another, Bagsecg and Halfdan were the/those heathen kings’
 (cochronE,ChronE_[Plummer]:871.11.1134)

- (103) þa amansumede he ealle þa men
then excommunicated he all the men

þa **þæt yfel dæde** (ACC-SG-fem.) hæfden don
who the/that evil deed had done

‘Then he excommunicated all the men who had committed that evil crime’
 (cochronE,ChronE_[Plummer]:1070.61.2631)

- (104) oð þæt **þa gode mæn**(NOM-PL-masc.) þe þis land bewiston
until the/those good men who this land looked after

him fyrde ongear sændon & hine gecyrdon
him army against sent and him drove away

‘Until these good men who looked after this land sent an army against him and drove him away’ (cochronE,ChronE_[Plummer]:1091.25.3090)

- (105) & þa ofer **þone midne sumor**(ACC-SG-masc.) com þa
And then after the/this mid(dle) summer came then

se Denisca flota to Sandwic
the Danish fleet to Sandwich

‘And then after this midsummer the Danish fleet came to Sandwich’
 (cochronE,ChronE_[Plummer]:1006.5.1678)

- (106) fand þa hidde in **þa ealde wealle** (ACC-PL-masc.) writes
found then hidden in the/these old walls writings

þet Headda abbot heafde ær gewriton
that Headda Abbot had earlier written

‘Then in these old walls they found hidden writings which Abbot Hedda had written earlier’

(cochronE,ChronE_[Plummer]:963.21.1408)

- (107) & forbearnde þa burh Maðante & ealle **þa halige mynstres** (ACC-PL-neut.)
 *and burned down the city Mante and all **the holy minsters***

 þe wæron innon þære burh
 which were inside this town

‘and burned down the city Mante and all the holy ministers which were inside this town’

(cochronE,ChronE_[Plummer]:1086.41.2869)

It can be argued, however, that one has to dismiss at least some of those cases as positive evidence. Most of the strong adjective endings should be regarded as scribal error, or phonetic or analogical confusion, because for many of the examples (e.g. ex.102 and ex.104), a parallel alternative with a weak adjectival ending can be found in the same manuscript (ex.108 and ex.109):

- (108) Eac wearð on Ispanie þæt **þa hæðenan men** (NOM-PL-masc.)
 *It happened in Spain that **the/these heathen men***

 foran & hergodan uppon þam Cristenan mannan
 went and raided against the Christian men

‘It happened in Spain that these heathen men went and raided against the Christians’

(cochronE,ChronE_[Plummer]:1086.149.2952)

- (109) ðas þing we habbað be him gewritene,
 these things we have about him written,

 ægðer ge gode ge yfele, þæt **þa godan men** (NOM-PL-masc.)
 *both the good and the evil, that **the/these good men***

 niman æfter þeora godnesse
 perform after the goodness

‘These things we have written about him, the good and the bad, that the good men perform after the goodness’

(cochronE,ChronE_[Plummer]:1086.139.2946)

In *þa ealde wealle* (ex.106), it was probably the case that the scribe used an *-e* ending to agree with the noun declension *-e*. Moreover, many examples come

from later entries when case forms were already declining. If we dismiss all the late examples (i.e. those after the entry for the year 1000), only 2 examples remain. If we do not dismiss any of the 13 examples, it still can be confirmed that the majority of the 258 cases follows the patterns of [DEM+ADJ]_{weak}+CN]_{NPdef}.

In a second step, I examined the construction [ADJ]_{weak}+CN]_{NPindef} where a weak adjective combines with a common noun in an indefinite context. This is a deviant pattern as we expect a strong adjective. Mitchell claims that this deviant combination must be considered exceptional as well. He states that with most of the cases in the dative, it again seems reasonable to assume a potential *-um/-an* confusion. In many cases in which we have *-an* (weak) instead of *-um* (strong) in the dative singular (masculine or neuter) or in the dative plural, it is likely that the speaker simply substituted the *-um* with *-an* due to analogical leveling (Mitchell 1985: 115–117).

To investigate the [ADJ]_{weak}+CN]_{NPindef} construction, I searched for the combination in two-word NPs. Here, the NP is supposed to be indefinite and thus remains without a determinative. Out of 146 cases, one can find a strong adjective ending in 123 cases (e.g. ex.110), but 23 hits show a weak ending as in example (111). This amounts to about 16%:

- (110) Hy arerdon **unrihte tollas** (ACC-PL-masc.)
 They levied **unjust tolls**

‘They levied unjust tolls’
 (cochronE,ChronE_[Plummer]:1086.30.2861)

- (111) & heo siððan wunodon on **rihtan geleafan** (DAT-SG-fem.) oððe
 and they afterwards remained in **[the] true faith** until

Dioclitianus rice
 Diocletian’s rule

‘and afterwards they remained with the true faith until Diocletian’s rule’
 (cochronE,ChronE_[Plummer]:167.2.78)

However, it can be observed that almost all of the 23 examples are dative cases where it seems likely that the *-um* was indeed substituted by *-an*. Additionally, many examples are expressions of time (e.g. ex.112–114), which often behave as frozen idiomatic expressions. Finally, example (117) is a vocative construction, which according to Mitchell often takes both forms.

- (112) ðises geares sende se cyng toforan længtene his dohter
 This year *sent the king* *before spring* *his daughter*

mid **mænigfealdan madman** (DAT-PL-masc.) ofer sæ
with manifold treasures *overseas*

‘This year before spring, the king sent his daughter overseas with manifold treasures’
 (cochronE,ChronE_[Plummer]:1110.5.3482)

- (113) & to Pentecosten **forman siþe** (DAT-SG-masc.) his hired
 and at Pentecost *for [the] first time* *his court*

on þam niwan Windlesoran heold
in that new Windsor *(he) held*

‘And at Pentecost, his court was held in that new Windsor for the first time’
 (cochronE,ChronE_[Plummer]:1110.1.3481)

- (114) Her hine bestæl se here on midne winter
 Here away stole *the raiding army* *in mid winter*

ofer **twelftan niht** (ACC-SG-fem.) to Cippanhamme
after [the] Twelfth Night *to Chippenham*

‘Here in midwinter after the Twelfth Night, the raiding army retreated to Chippenham’
 (cochronE,ChronE_[Plummer]:878.1.1206)

- (115) & þy ilcan geare ær **middan wintra** (DAT-SG-masc.)
 and in the same year *before midwinter*

forðferde Carl Francna cyng
passed away *Carl, [the] Francs’ king*

‘and in the same year before midwinter Carl, the Francs’ king, passed away’
 (cochronE,ChronE_[Plummer]:885.12.1275)

- (116) & he is bebyrged on **ealdan mynstre** (DAT-SG-neut.) on Winceastre
 and he is buried *in [the] old minster* *in Winchester*

mid Cnute cynge his fæder
with king Cnut, *his father*

‘and he is buried in the old monastery in Winchester with king Cnut his father’
 (cochronE,ChronE_[Plummer]:1041.1.2126)

(117)	oc ic wile <i>but I wish</i>	ðe gebidden <i>to ask you</i>	la leoue freond (NOM-VOC-SG-masc.) oh dear friend	pæt hii <i>that they</i>
	wirce <i>should work</i>	æuostlice <i>hastily</i>	on þere werce <i>on the work</i>	

‘but I would like to ask you, dear friend, that they should work hastily on the project’

(cochronE-INTERPOLATION,ChronE_[Plummer]:656.14.400)

Interestingly, in almost all of the examples the context is definite (e.g. ex.111, ex.113, ex.114 and ex.116). What Mitchell often interprets as a simple dative confusion might sometimes occur for another reason. The weak adjective ending might have been used because the context of the NP was definite and not indefinite. This means that in those examples the weak adjective ending alone, without demonstrative or possessive, successfully indicates definiteness. So rather than the adjective being in the ‘wrong’ declension, one could argue that a form of *se* is missing here.⁹¹ This lack of an overt determinative in noun phrases with definite reference is something that will be investigated in detail in section 5.5.5. The main point for now is that those adjective examples cannot be seen as clear counterexamples to the ‘rule’: ‘strong ending in indefinite context’.

How is this result relevant to the research questions asked in this book? First of all, when analyzing the *Peterborough Chronicle*, it can be confirmed that apart from some exceptions and potential dative confusion “the weak-strong distinction in the declension of adjectives is consistently observed in the prose” (Mitchell 1985: 141, 67). Second, the investigated examples help us to comment on the hypothesis about article emergence presented in section 3.2.1.4. There I discussed Strang’s argument (1970) that the weak adjectival ending still had some definite marking capacity, but the additional determinative was necessary to disambiguate case and gender. For Strang, disambiguating case and gender is seen as the reason why the demonstrative spread as an obligatory definiteness marker and thereby developed into the definite article.

I am skeptical, however, how sound this argument is, regarding a time when the whole inflectional system was collapsing. Admittedly, putting the demonstrative in a construction as a means to disambiguate could be interpreted as a coun-

⁹¹ This would then mirror the archaic use of the weak adjective, which in Proto-Germanic could signal definite reference on its own without the additional use of a demonstrative (Heinrichs 1954).

ter-act or repair mechanism to the inflectional breakdown. Such repair mechanisms have been observed in other languages. In the case of Old English, however, where half of the system is full of case syncretism already, it is not likely that this was the only reason why the demonstrative became an obligatory default marker in all definite contexts. For example, the explanation does not help in all those cases where there is no adjective.

This relates to the construction's frequency. If one takes into consideration that the [DEM+ADJ]_{weak+CN}]_{NPdef} construction only occurs 258 times, the question is why this infrequent combination should have such a strong influence on the general economy of the noun phrase? Even if a speaker links weak adjective usage to the obligatory use of the demonstrative in definite contexts, s/he does not necessarily need to apply this 'rule' to all other instances where the noun phrase occurs without such an adjective. It may therefore be confirmed that the demonstrative is used obligatorily with weak adjectives to refer to a definite referent, but it is less clear if such a regularity has the power to exert that much influence on the system of nominal determination leading to obligatory definiteness marking in general.

5.3 Diachronic development of *se*: the rise of the demonstrative

So far, five basic constructions have been discussed: [DEM+CN]_{NPdef}, [DEM+PN]_{NPdef}, [POSS+CN]_{NPdef}, [GenP+CN]_{NPdef} and, in the last subsection, [DEM+ADJ+CN]_{NPdef}. It was shown that [DEM+CN]_{NPdef} is more frequent than the other constructions. All these results do not tell us anything about the historical development of *se* so far. However, one major goal of this book is to trace the development of *se* from a diachronic perspective. This is why I split up the *Peterborough* and the *Parker Chronicle* into subperiods to see if any changes in the demonstrative's usage can be detected. Splitting up the manuscripts into periods is possible because the annals were written by various scribes and copied more or less faithfully throughout the years, which makes it possible to observe linguistic changes. The chronicles were split up into the following periods: 3 for the *Parker Chronicle* (PA.I, PA.II, PA.III), which ends in 1070 and 4 for the *Peterborough Chronicle* (PB.I, PB.II, PB.II and PB.IV), because the text extends over a longer period.

Tab. 19: Diachronic subperiods of the *Peterborough* and the *Parker Chronicle*

source file	Peterborough Chronicle (cochronE.o34.psd)			
subperiods	PB.I	PB.II	PB.III	PB.IV
coverage	< 731	733-991	992-1070	1071-1121
remarks	incl. interpolation 654, 656, 675, 686	incl. interpolation 777, 851, 852, 870	new scribe; incl. interpolation 963, 1013, 1041, 1052, 1066, 1069, 1070	1070 the Parker man- uscript ends Incl. interpolation 1102, 1103, 1107, 1114, 1115, 1116
source file	Parker Chronicle (cochronA.o23.psd)			
subperiods	PA.I	PA.II	PA.III	
coverage	< 731	733-891	892-1070	
remarks	Mostly translations PA.I can be com- pared with PB.I in terms of temporal coverage		new scribe	

When splitting up the text into the given periods, the basic idea was to provide a more or less balanced amount of NPs in each period.⁹² Additionally, factors relating to the manuscripts' composition played a role. In the *Parker Chronicle* only three periods were created because the amount of NPs is lower, so that three periods seemed more appropriate than four. The manuscript ends with 1070 and this falls together with the end of the PB.III section in the *Peterborough Chronicle*. PA.I ends at the same entry as PB.I. To use the entry for 733 to begin a new section (PA.II) was inspired by Earle, who points out that in the Parker manuscript the entries down to 731 must be assigned to Alfred's reign and often are mere translations from Bede and others. He considers the section to be "a work of collection, translation and bookmaking" (Earle 1865: viii). PA.III starts with the year 892 where we have a change in scribe (Bately 1986: xxi–xliii). Additionally, the entry for the year 991/992 (beginning of PB.III) can also be interpreted as a textual boundary because at this point, according to Earle, who suspects a new scribe, "begins a series of comparatively unbroken continuity [...] [that shows] traces of a literary motive which has not appeared in the earlier Chronicles" (1865: xlv). The OE part of the PB ends with 1121 marking a natural boundary.

⁹² Dates represent the entries for the particular year.

The *Peterborough Chronicle* also includes about 20 interpolations. Those interpolations, which vary considerably in length, were apparently incorporated by the first scribe when copying the annals up to 1121. These passages show very late linguistic characteristics (Irving 2004: xc), so it has been argued that they should be excluded because they might ‘skew’ the output. If these interpolations included a high number of *se*, this would increase the overall frequency of *se* in the earlier parts. However, keeping them does not alter the overall outcome of the study, which is why they were not excluded. As will be shown in Table 20 (see next section 5.3.1), the number of demonstratives increases significantly although the interpolations are included and potentially level the output. This means that if we excluded the interpolations, it is likely that the diachronic increase of the demonstrative would even be higher. In other words, we can assume that if the interpolations had been left out, the diachronic frequency increase of *se* would be even more radical.

In the next sections, I will not only investigate the frequency increase of the simple demonstrative *se* (section 5.3.1) but also the fate of the compound demonstrative *þes* (5.3.2). On top of that, also ‘type’ frequencies are analyzed in order to answer the question if the usage of *se* really increases in an absolute sense over time (section 5.3.3).

5.3.1 Significant increase of the demonstrative *se*

Tables 20 and 21 show the hits (raw data) for 4 NP constructions in the subperiods of the *Parker* and the *Peterborough Chronicle*. All examples were excluded in which the common noun appeared in the genitive. Genitive constructions often do not function as the head of a phrase but as a determinative themselves. The intention was to focus on those cases (NOM, DAT, ACC) which can function as the subject and object of a clause.

Tab. 20: Distribution of 4 constructional types in the PB periods

Peterborough Chronicle	PB.I	PB.II	PB.III	PB.IV
CNPs	982	1251	1783	2077
Dem + CN (incl. <i>þes</i> , excl. gen)	199	289	557	763
Poss + CN (excl. gen)	92	85	115	185
GenP + CN	146	144	123	116
Dem + Adj + CN	29	74	78	77

Tab. 21: Distribution of 4 constructional types in the PA periods

Parker Chronicle	PA.I	PA.II	PA.III
CNPs	478	788	874
Dem + CN (incl. þes, excl. gen)	82	170	260
Poss + CN (excl. gen)	85	48	3
GenP + CN	78	102	82
Dem + Adj + CN	21	53	45

Using these data points, I ran a multinomial logistic regression model.⁹³

Tab. 22: Multinomial logistic regression model of construction type depending on period based on PB (N=6093; other CN as default). Significance code: ‘*’ p<0.05; ‘**’ p<0.01; ‘***’ p<0.001.

Construction	Intercept	Coefficient	SE (coeff.)	p (coeff.)	Significance
Dem + CN	-1.28	0.26	0.03	<0.001	***
Poss + CN	-2.02	0.06	0.04	0.16	
GenP + CN	-0.98	-0.29	0.04	<0.001	***
Dem + Adj + CN	-2.55	0.03	0.06	0.6	

The results in Table 22 and Figure 10 show that the frequency of the demonstrative increases significantly throughout the years in the *Peterborough Chronicle*. The [GenP+CN]_{NPdef} construction is used significantly less. The other two constructions remain more or less stable.

⁹³ All computations were done in R (R Core Team 2017); also see Venables and Ripley (2002).

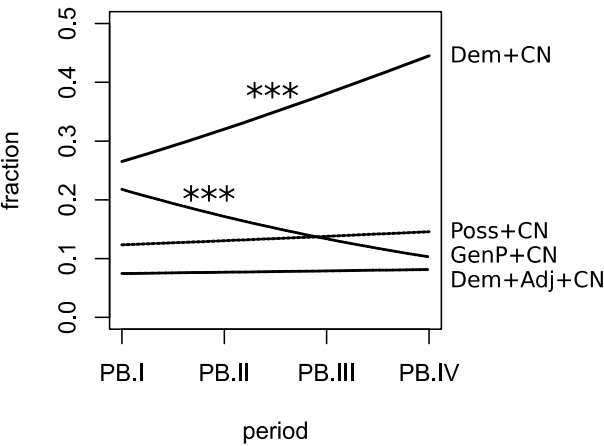


Fig. 10: Diachronic increase of demonstrative determinative in PB

We find very similar results in the *Parker Chronicle*. Again, the $[\text{DEM}+\text{CN}]_{\text{NPdef}}$ construction increases significantly throughout the years, whereas $[\text{POSS}+\text{CN}]_{\text{NPdef}}$ as well as $[\text{GenP}+\text{CN}]_{\text{NPdef}}$ significantly decrease in frequency.

Tab. 23: Multinomial logistic regression model of construction type depending on period based on PA (N=2140; other CN as default). Significance code: ‘*’ $p<0.05$; ‘**’ $p<0.01$; ‘***’ $p<0.001$.

Construction	Intercept	Coefficient	SE (coeff.)	p (coeff.)	Significance
Dem + CN	-1.21	0.19	0.07	<0.01	**
Poss + CN	0.75	-1.59	0.15	<0.001	***
GenP + CN	-0.61	-0.39	0.09	<0.001	***
Dem + Adj + CN	-2.07	-0.08	0.13	0.55	

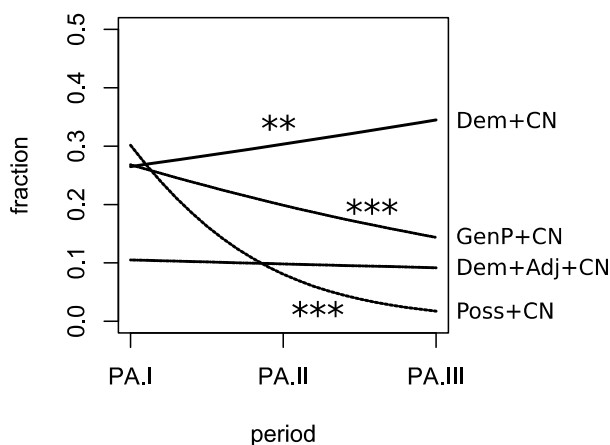


Fig. 11: Diachronic increase of demonstrative determinative in PA

The results prove that the frequency of *se* before common nouns increases dramatically in both manuscripts, reaching a peak in the late OE entries. This fact is often interpreted as evidence that the form took up its new article function. As an article, the semantically bleached anaphoric reference marker would be used much more often than as a deictic marker.

However, the results presented so far are only a first step in the analysis. For various reasons, which will be outlined in the next two sections, it is necessary to investigate the fate of the compound demonstrative *þes* and also to investigate type frequencies.

5.3.2 The ‘compound’ demonstrative *þes*

As was already mentioned in section 3.1.1., we have two demonstratives in Old English: *se* and the compound demonstrative *þes*. Several scholars argue that it is unlikely that the article developed from the compound demonstrative, so that the frequencies in Table 20 and 21 (which included forms of *þes*) might be misleading. This is why I excluded all examples with forms of *þes*. However, even if forms of *þes* are subtracted from the calculations, and even if we only focus on the development of *se*, the results still show a significant increase of the construction in time (Table 26).

Tab. 24: Investigating $[bes+CN]_{NP_{def}}$ in the PB

Peterborough Chronicle	PB.I	PB.II	PB.III	PB.IV
CNPs	982	1251	1783	2077
Dem + CN (incl. <i>bes</i>)	199	289	557	736
Dem + CN (excl. <i>bes</i>)	162	256	488	657
<i>ses</i> + CN	37	13	69	106

Tab. 25: Investigating $[bes+CN]_{NP_{def}}$ in the PA

Parker Chronicle	PA.I	PA.II	PA.III
CNPs	478	788	874
Dem + CN (incl. <i>bes</i>)	82	170	260
Dem + CN (excl. <i>bes</i>)	80	166	240
<i>bes</i> + CN	2	4	20

Tab. 26: Investigating Dem+CN excl. *bes*; Logistic models; Rest-CNPs as default

Construction	Intercept	Coefficient	SE (coeff.)	p (coeff.)	Significance
Dem + CN (excl. <i>bes</i>) in PB	-1.90	0.29	0.03	<0.001	***
Dem + CN (excl. <i>bes</i>) in PA	-1.94	0.32	0.07	<0.001	***

Table 24 and 25 also reveal that the compound demonstrative *bes* is much rarer than *se* but itself increases in time (raw data). In the *Parker Chronicle*, the number of $[bes+CN]_{NP_{def}}$ increases sharply from 2 to 20 cases. Admittedly, we cannot speak of a steady rise in the *Peterborough Chronicle*, because in the second period a decline of *bes* (13 hits) can be observed. But in the last period, the number of $[bes+CN]_{NP_{def}}$ increases again from 69 instances to 106.

Note that the development of the compound demonstrative *bes* can be seen as an indirect indication of the emergence of the article. It seems reasonable to argue that when the form *se* takes up article function and its deictic force diminishes (so that proximity or distance is no longer expressed by it), another element is employed to fill this semantic gap. I hypothesize that this gap was filled by the

compound demonstrative *þes* and by a new use of the neuter *þæt* in Middle English. As Mustanoja mentions the ModE “demonstrative pronoun *this* goes back to OE *þes*” (160: 173). Already in Old English the sense of *þes* included a stronger deictic notion, contrasting with *se*’s developing anaphoric function. Nevertheless, they often were still interchangeable; *se* may be translated as *this* and *þes* as *the/that* (see introduction). According to the literature, the distal/proximal opposition between *this/that*, *these/those* only emerges after the 12th century (cf. Mustanoja 1960: 173; Mitchell 1985: 136; Lass 1992: 114).⁹⁴ Still it could be argued that an increase of *þes* is indirect evidence for the split between *se* with its new role as a definite article and *þes* as the remaining demonstrative with the special function of expressing proximity or emphasis. Obviously, the results are not very reliable as the overall frequency of *þes* is very low in both documents, but the numbers are still suggestive.

So far it can be concluded that my findings support the idea that the increased frequency of *se* mirrors a category change, with *se* adopting an article function. On the other hand, the increase of *se* is still not as conclusive as it first seems. It could be based on the fact that simply the number of definite NPs (with definite reference) may be higher in the later parts of the text. As the annual entries get much longer and more paragraphs are used to report on and refer to a particular referent, a narrative structure develops. This increases the anaphoric usage of the demonstrative. Thus, an analysis of tokens alone is insufficient.

5.3.3 Type increase vs. token increase

In order to answer the question if the usage of *se* really increases in an absolute sense over time, also ‘type’ frequencies were analyzed and compared to ‘token’ frequencies. By type frequency I mean the number of cases where the demonstrative occurs with different common nouns. A combination like *the king* might occur a hundred times in the text but as a ‘type’ will only be counted once. The idea is to investigate with how many ‘different’ CNs *se* occurs with in the individual periods. Table 27 shows how often the demonstrative combines with different CNs.

⁹⁴ Only then does the old neuter nominative/accusative singular *þæt* begin to emerge with a clear distal sense (opposed to *þis*). Also the new plural type *þes-e* emerges only after the 13th century (Mustanoja 1960: 168–170; Lass 1992: 114).

Tab. 27: Type increase (Demonstrative occurring with different CN types, normalized in 2000 CNPs)⁹⁵

Peterborough Chronicle	PB.I	norm	PB.II	norm	PB.III	norm	PB.IV	norm
CNPs	982	2000	1251	2000	1783	2000	2077	2000
Dem + CN (type)	92	187	92	147	141	158	167	160

Parker Chronicle	PA.I	norm	PA.II	norm	PA.III	norm
CNPs	478	2000	788	2000	874	2000
Dem + CN (type)	40	167	55	139	96	220

The normalized data reveals that in both documents, the distribution fluctuates in the respective sections. In the PB, the demonstrative (including forms of *þes*) combines with more different nouns in the first section than in the later sections. In the PA, we see an increase of noun types in the final period. In other words, *se*'s usage extends to different common nouns, however, like in the PB, numbers decrease in the middle period.

Why is it important to investigate type increase? The results imply that the token increase of the demonstrative in the later periods is primarily based on the fact that the individual entries tend to become longer and a particular referent is referred to repeatedly. This is different from an alternative scenario, in which not only token but also type frequency increases. Only an increase in both domains would clearly attest that the form *se* extends its usage and is used more frequently in different syntactic contexts. In the end, this result shows that analyzing one manuscript is simply not enough, which is why the empirical investigation will be extended to other OE texts in chapter 6.

5.4 Investigating the functions and frequency of *ān*

In contrast to *se*, *ān* (when functioning as a determinative) is used very scarcely in both manuscripts. [*ān*+CN]_{NPindef} occurs 84 times in the *Peterborough Chronicle* and 40 times in the *Parker Chronicle*. This corresponds to roughly 1.5% of all CNPs

⁹⁵ The number of types was calculated with the help of the *CorpusSearch* lexicon function (ml_make lexicon) (see Appendix II.i.iii).

(Table 15).⁹⁶ As was already mentioned in section 3.1.2.2, *ān* very often is used as a numeral. However, the question is how often *ān* is used to exclusively mark indefinite reference? When analyzing the 84 PB examples in detail, *ān* clearly has a numerical reading in 55 cases; in the remaining 29 cases an indefinite reading is more likely than a quantifier reading. The situation is similar in the PA, where we can give 26 cases a clear numerical interpretation and only 14 a bleached one.

As a numeral *ān* repeatedly occurs in the fixed phrases *one day*, *one night* or *one year* (ex.118). In example (119), it is used (as a listing device) to contrast two amounts in the sense of ‘one’ vs. ‘more’ (*one horse* is contrasted with *30 shillings*).

- (118) Her Erodes swealt seðe Iacobum ofsloh **anum gear**
Here Herodes died *he who Jacob killed* ***one year***
- æð his agenum deaðe
before his *own death*
- ‘Then Herodes, who had killed Jacob one year before his own death, died’
 (cochronE,ChronE_[Plummer]:46.1.49_ID)

- (119) & ilca gear **an hors & þrittiga scillinga.** & ane næht gefeormige
and each year ***a horse and thirty shillings.*** *and one night’s provisions*
- ‘and each year one horse and thirty shillings and provisions for one night’
 (cochronE-INTERPOLATION,ChronE_[Plummer]:852.5.1044_ID)

Ān is used in a contrastive construction like this 8 times. It is also repeatedly used in constructions like ‘not one X’ (ex.120) or ‘X except for one’ (ex.121):

- (120) **ne an cu. ne an swin** næs belyfon þæt næs gesæt on hisgewrite
not one cow. not one pig *was left out that was not set down* *in his record*
- ‘Not one cow, not one pig was left out that was not set in his record’
 (cochronE,ChronE_[Plummer]:1085.35.2814_ID)
- (121) & forbærndon ealle þa munece huses & eall þa tun **buton ane huse**
and burned down *all the monks’ houses* *and all the town* ***except one house***
- ‘and burned down all the monks’ houses and all the town except for one house’
 (cochronE,ChronE_[Plummer]:1070.22.2587_ID)

96 *Ān* in combination with a modifying adjective is also extremely rare (9 hits).

In all those cases, *ān* clearly fulfills a quantifying function which is why such examples were counted as numerals. In contrast, a bleached identifying reading is more likely in the following examples:

- (122) & þy ilcan geare ær middan wintra, forðferde Carl Francna
 and that same year before midwinter, passed away Carl [of] Franks

 & hine ofsloh **an eofor**
 and him killed **a boar**

‘that same year before midwinter, Carl, the king of the Franks, passed away;
a boar killed him’
(cochronE,ChronE_[Plummer]:885.12.1276_ID)

- (123) **an scip** flotigende swa neh þan lande swa hit nyxt mæge & þar beo
 a ship floating as close the land as it closest may and there is

an mann stande on þan scipe & habbe **ane taperæx** on his hande
 a man standing on the ship and has **a taper axe** in his hand

‘a ship is floating as close to the land as it might closest be, and a man stands
on the ship and has a taper axe in his hand’
(cochronA-10,ChronA_[Plummer]:1031.1.1447_ID)

- (124) & þrie Scottas common to Ælfrede cyninge, on anum bate
 and three Scots came to king Alfred, in a boat

butan ælcum gereþrum
 without any oars

‘and three Scots came to King Alfred in a boat without any oars’
(cochronA-1,ChronA_[Plummer]:891.3.1000_ID)

- (125) betahten hit þa **an munec** **Saxulf wæs gehaten**
 entrusted it to **a monk** **Seaxwulf was called**

‘Entrusted it to a monk who was called Seaxwulf’
(cochronE-INTERPOLATION,ChronE_[Plummer]:654.10.379_ID)

- (126) þy geare gegaderodon **an hloð wicinga**
 that year gathered **a gang of Vikings**

‘That year gathered a gang of Vikings’
(cochronE,ChronE_[Plummer]:879.1.1233_ID)

Importantly, from example (124) onwards, it can be observed that the head noun takes some kind of postmodification. Several schemas are repeatedly used: $[\bar{a}n+CN+PP]_{NP_{indef}}$ (ex.124); $[\bar{a}n+CN+RelCl]_{NP_{indef}}$ (ex.125); $[\bar{a}n+CN+GenN]_{NP_{indef}}$ (ex.126). It seems to be the case that speakers start to regularly use $\bar{a}n$ in NPs with some kind of posthead modification. I hypothesize that $\bar{a}n$ – which at the beginning is primarily used in those specific constructions – later spreads to other constructions. This hypothesis will have to be tested in the future.

Although examples like the ones presented above (ex.122–126) were counted as bleached cases, the problem is that it is possible to give them a numerical reading as well. This is not surprising, as it is this semantic ambiguity which makes $\bar{a}n$ the source gram for the indefinite article in the first place (see section 3.2.2). Still, it seems safe to postulate that in a couple of contexts, $\bar{a}n$ is used for identification only. This however, does not make it an article yet but something I would rather call a ‘weak numeral’. Due to the fact that the documents are full of cases where indefinite reference is not marked at all, it must be concluded that $\bar{a}n$ was not used as an obligatory indefinite reference marker in Old English, which is how I define an article (see section 5.5.5 obligatoriness). The low frequency of $\bar{a}n$ and its optional status lead us to the criteria for articlehood which were set up in section 2.3. After the analysis of some definite and indefinite NP patterns in the *Peterborough* and *Parker Chronicle*, I would now like to proceed to the more qualitative analysis of the forms *se* and $\bar{a}n$ by testing the seven criteria.

5.5 Demarcating a category: application of criteria

Quirk and Wrenn (1958: 70) remark that the existence of a category ‘article’ in Old English is a vexed question. One option is to assume that an article ‘exists’ as soon as a few semantically bleached cases can be identified where *se* and $\bar{a}n$ express (in)definite contexts without indicating spatial deixis or number. If semantic bleaching of the deictic/numeral force is regarded as the only evidence for the articles’ emergence, the ‘birth’ of the new category can be postulated quite early, namely when we find the first cases where a semantically bleached element is used. If, on the other hand, we only accept the postulation of the new category when a form meets the criteria presented in section 2.3, then the articles’ existence will depend on the fulfillment of those criteria and potentially take place later. To go for the second option means that one has to investigate textual output of the time systematically and thoroughly and observe how often and in what ways *se* and $\bar{a}n$ were really used. In the last section I primarily discussed frequency distribution. In the following sections, the criteria for articlehood will be

tested. As a start, I will check the criteria in only one manuscript, namely the *Peterborough Chronicle*. This obviously does not tell us anything about the general state of Old English, as more texts from different genres will have to be analyzed for that. For now, however, the application of the criteria on only one text aims to show how good the criteria are and if it is possible to positively demarcate the category article at all.

5.5.1 Criterion 1: No Independence

In section 2.3 it was hypothesized that a prehead dependent which cannot occur independently of its head is likely to be an article. As was already mentioned in section 3.1.1, it is often the case in Old English that the demonstrative and the numeral stand alone. In example (127) and (128) *se* is used as an independent demonstrative pronoun in object position heading its own noun phrase.

- (127) þa **þæt** onfundon ða Romani, þa noldon hi faron
 *When **that** discovered the Romans, then would not they cross*
- ofer þone ford
 over that ford
- ‘When the Romans discovered that they would not cross over that ford’
 (cochronE,ChronE_[Plummer]:0.30.27_ID)

- (128) ðas sindon þa witnes þe þær wæron
 These are the witnesses who there were
- & þa **þæt** gewriten mid here fingre on Cristesmele
 *and who **that/it** wrote with their finger on Christ’s mark*
- ‘These are the witnesses who were there and wrote it with their finger
 on Christ’s mark’
 (cochronE-INTERPOLATION,ChronE_[Plummer]:656.88.455_ID)

In example (129), *þam* is part of a prepositional phrase.

- (129) þer gegadorode six hund scipa, **mid þam**
 *there gathered sixhundred ships, **with those/which***
- he gewat eft in to Brytene
 he went back to Britain

‘There he gathered sixhundred ships with which he returned to Britain’
(cochronE,ChronE_[Plummer]:0.24.23_ID)

þæt is also used independently in fixed phrases like *after that*, *beyond that* (ex.130). It is also often used in phrases like *that is...*, *that was...* (ex.131).

- (130) Siððan ofer **þæt** ne rixodan leng Romana cinigas
 Afterwards beyond **that** not ruled longer the Roman kings

on Brytene
in Britain

‘Afterwards the Roman kings no longer ruled in Britain’
(cochronE,ChronE_[Plummer]:409.2.104_ID)

- (131) & **þæt is** wið Æðelinga ige
 and **that is** near Athelney

‘That is near Athelney’
(cochronE,ChronE_[Plummer]:878.21.1226)

Se functions as a relative pronoun as well (ex.132 and ex.133).

- (132) & þa hi ærost togedore geræsdon þa man ofsloh
 and when they battle first joined the men killed

ðes Caseres gerefan **se** wes Labienus gehaten
the emperor’s tribune **who** was Labenius called

‘and when they first joined the battle, the men killed the emporor’s tribune
who was called Labenius’
(cochronE,ChronE_[Plummer]:0.26.24_ID)

- (133) þær man sloh eac cc preosta **þa** comon ðider
 there they slew also 200 priests **who** had come there

þæt heo scoldan gebiddan for Walana here
that they should pray for the Welsh army

‘there they also killed 200 priests who had come there to pray for the Welsh army’
(cochronE,ChronE_[Plummer]:605.5.257_ID)

Ān is also used independently functioning as the head of a noun phrase (ex.134–136).

- (134) Her com micel sciphære on Wæst Wealas. & hi **to anum** gecyrdon
*Here came great shiparmy to west Welsh and they **to one** turned*

‘Then came a great shiparmy to Cornwall and they turned into one’
 (cochronE,ChronE_[Plummer]:835.1.1004_ID)

- (135) & þa men ðe mid him wæron ealle buton **anum** se wæs
*and the men who with him were all but **one** who was*

þes ealdormannes godsunu
 the ealdorman’s godson

‘and all the men who were with him except one who was the ealdorman’s godson’
 (cochronE,ChronE_[Plummer]:755.35.772_ID)

- (136) eall þis land swilce forneah ealle þa niht swiðe mænifealdlice steorran
all this land likewise almost all the night very manifold stars

of heofenan feollan. naht **anan** oððe twam. ac swa þiclice
*from heaven fell. not **one** or two. but so thickly*

þæt hit nan mann ateallan ne mihte
that them no man count not could

‘All over this land and almost all the night manifold stars fell from heaven, not one or two, but so thickly that no man could count them’
 (cochronE,ChronE_[Plummer]:1095.14.3208_ID)

In all these cases, the forms occur independently. The criterion NO INDEPENDENCE is clearly not met, which seems to confirm the non-existence of the article category. However, I suggest that the criterion must be disregarded. The fact that the forms fulfill other functions next to being a determinative (e.g. as a pronoun) should not influence the decision whether they deserve to be treated as articles in some cases. The forms occur independently, but this only happens when they function as a demonstrative pronoun (comparable to ModE *this/that; these/those*), a relative pronoun (translatable as today’s *who/which/that*) or a numeral heading its own noun phrase. The real question, however, is if in their role as determinatives (i.e. a dependent prehead element) they behave in a way that justifies articlehood. From that point of view, the criterion is only helpful for Modern English where we have two separate forms, *this* and *the* and *one* and *a/an*. In Modern

English it is possible to clearly distinguish between the forms and it can be easily checked if *the* or *a/an* are used independently – which they are not. In Old English, however, it is impossible to eliminate the possibility that *se* and *ān*, when used in independent position, are used as demonstrative pronoun or numeral. Similarly, in Modern English the form *have* functions as a full lexical verb but also as an auxiliary. The auxiliary usage historically developed out of the lexical verb. Still, it is flawed to claim that *have* is not an auxiliary because it is often still used as a lexical verb. Of course, it is reasonable to suggest that a prehead marker which only fulfills one function and which is bound to its head is likely to be an article; but that does not imply that a linguistic form which has a second function cannot function as an article as well.

5.5.2 Criterion 2: No Predication

The second criterion which was suggested is NO PREDICATION: a prehead dependent which cannot function as a predicative complement is likely to be an article. Although the manuscript is full of ADJPs, CNPs and PNPs which are used predicatively (ex. 137–139), no example can be found where *se* is used predicatively, like for example *X + is/was/became + this/that*.

- (137) & wæs þær mid him oð ðone byre þe Swegen **dead** wearð
 and was there with him until the time that Swegen was dead

‘and was there with him until the time that Swegen was dead’
 (cochronE,ChronE_[Plummer]:1013.38.1877)

- (138) & Godwine eorl wæs **heora healdest mann**
 and earl Godwin was their most loyal man

‘and earl Godwin was their most loyal man’
 (cochronE,ChronE_[Plummer]:1036.10.2102)

- (139) & Godrum se norðerne cyning forðferde
 and Guthrum the northern king passed away

þæs fulluhtnama wæs **Æðelstan**
 whose baptismal name was Athelstan

‘and Gothrum, the northern king, whose baptismal name was Athelstan,
 passed away’
 (cochronE,ChronE_[Plummer]:890.2.1309)

In the case of *ān*, 2 examples can be found where the form is used predicatively after the copula:

- (140) Hugo *eac an* þe hit ne gebette nan þing. ne innan Lægreceastrescire.
Hugo was one who did not improve no thing. neither in Leicestershire.

ne innan Norðhamtune
 nor in Northampton

‘Hugo was somebody who did not improve anything either in Leicestershire or in Northampton’

(cochronE,ChronE_[Plummer]:1087.30.2998_ID)

- (141) & wæs todæled on foreweardum Danieles dagum on ii biscopscyra
and was divided in early Daniel’s days in two dioceses

Wæst Seaxna lands & æar hit *wæs an*
West Saxon’s lands and earlier it *was one*

‘and in the early days of Daniel the land of Wessex was divided into two dioceses; earlier it had been one’

(cochronE,ChronE_[Plummer]:709.1.646_ID)

Apparently, *se* and *ān* behave differently when it comes to the NO PREDICATION criterion. *Se* is never used predicatively, which seems compatible with the assumption that it already functioned as the definite article. *Ān*, however, is used predicatively, which speaks against its article status. However, like the NO INDEPENDENCE criterion, the criterion is not the most well-reasoned in the first place. Cases of predicative usage are a special subset of all the cases where *se* and *ān* function as an independent pronoun or numeral and not a determiner. Thus, the two criteria will not be investigated further and will not be applied to other OE prose texts.

5.5.3 Criterion 3: No Co-occurrence

The next criterion is NO CO-OCCURRENCE. It has been decided that the article is a non-iterative category in Modern English and cannot occur with itself or other determinatives. So any prehead dependent which can co-occur with itself or other determinatives is not an article. In the *Peterborough Chronicle* no examples can be found where *se* or *ān* occurs with itself inside the same noun phrase. Patterns with *se+se+CN*, and *ān+ān+CN* do not exist. However, *se* and *ān* co-occur

with other determinatives. For example, the form *ān* co-occurs with another determinative twice in the text. In example (142) it combines with *se* and in example (143) with the possessive determinative *his*.

- (142) *þe hi* **þet an gear** rixodon betwix him & Eadwine
 by those **that one year** ruled *between him and Eadwin*

‘by those who had ruled that one year between him and Eadwin’
(cochronE,ChronE_[Plummer]:634.6.332_ID)

- (143) And *þær æfter on morgen æfter hlamæssedæge* wearð se cyng Willelm
 and that after one morning after Lammas day *was the king William*

on huntnoðe fram his anan men mid anre fla ofsceoten
in hunting by his own men *with an arrow shot*

‘and after that, one morning after Lammas day, king William was shot with an arrow by his own men’
(cochronE,ChronE_[Plummer]:1100.6.3322_ID)

Example (143) might not be a valid example as *ān* is declined weak here and *fram his anan men* should be interpreted either as ‘by his own men’ or ‘by his men alone’. Still, in both examples the form co-occurs with a determinative which is why the NO CO-OCCURRENCE criterion is not met. Obviously, in these examples *ān* functions as a numeral or ‘own’.

Also, *se* and a possessive can both precede the noun in the same noun phrase in Old English. The construction [DEM+POSS+ADJ+CN]_{NPdef} (ex.144) is used once in the text; the variant [POSS+DEM+ADJ+CN]_{NPdef} can be found twice in the PB (ex.145 and ex.146).⁹⁷

- (144) *ac he teah forð* **þa his ealdan wrenceas**
 but he brought out **these his old tricks**

‘and he brought out these his old tricks’
(cochronE,ChronE_[Plummer]:1003.6.1640)

- (145) *þet he mid þam dynte* *nieðer sah [...]* and **his þa haligan sawle**
 that he with the/that blow *down sank [...]*

⁹⁷ Note that no examples for [Dem+Poss+CN]_{NPdef} or [Poss+Dem+CN]_{NPdef} without an adjective were found in the *Peterborough Chronicle*.

to Godes rice asende
to God's kingdom rose

'Then he died due to that blow and his holy soul ascended to God's kingdom'
(cochronE,ChronE_[Plummer]:1012.12.1834)

- (146) *Pa þa seo gode cwen Margarita* *þis gehyrde hyre þa leofstan hlaford & sunu*
 Then when that good queen Margaret *this heard her that dearest lord and son*

þus beswikene. heo wearð *oð deað on mode* *geancsumed*
 thus betrayed. She became *to death in mind* *anguished*

'Then when that good queen Margaret heard this, that her dearest lord and son
was thus betrayed, she became anguished in mind to the point of death'
(cochronE,ChronE_[Plummer]:1093.27.3133)

The possibility for two determinatives to co-occur suggests that the structural organization of the OE noun phrase must have been slightly different from the one we find today. However, the observable co-occurrence of POSS+DEM/DEM+POSS has to be treated with caution because the OE examples need not be analyzed with the demonstrative and the possessive as part of the same nominal. In example (144), *þa* might be an adverb (translatable as *then*), which is not part of the noun phrase. Another alternative reading is also possible in which the demonstrative is used in a topicalized, appositive structure: [demonstrative]+[poss+noun] (*these, his old tricks*). Such a structure is also used in Present Day English, e.g. in

- (147) Dada was coming out of **this, his** special lavatory, as Nicandra, on her return from
 the dining room, arrived. (BNC H7H W_fict_prose)

Denison points out that we might face "parallel NPs in apposition rather than jointly filling a single determiner slot" (1998: 115). Here, "the demonstrative acts as a focus marker to emphasize the following nominal" (Wood 2007: 348). In Present Day English, a comma would be used to indicate such apposition. Unfortunately, OE scribes did not use punctuation in the same way. From that point of view, it is hard to decide if such a pattern should be analyzed either as an appositional construction or DEM and POSS in the same NP. In example (143), *his* may as well be a hidden genitive (*that holy soul of his*). Due to the less fixed word order in Old English, the possessive pronoun may be part of a separate genitive construction.

Thus, we cannot be sure if the two examples in the *Peterborough Chronicle* count as positive evidence for the existence of the construction. In any case, we can safely conclude that co-occurrence is extremely rare in the PB. This is quite surprising as co-occurrence patterns like those above are claimed to be relatively common in Old English (Kytö and Rissanen 1993: 254). Allen (2006: 155) states that the POSS+DEM construction “was genuine OE usage [...] found in all sorts of writing”. According to Traugott, [POSS+DEM+ADJ+CN]_{NPdef} is as possible as [DEM+POSS+ADJ+CN]_{NPdef} when an adjective is present, but the first is more frequent. When no adjective is present [DEM+POSS+CN]_{NPdef} is preferred (Traugott 1992: 173; cf. Mitchell 1985: 104–12; Heltveit 1977; Allen 2006, 2008; Wood 2007).⁹⁸ The existence of this structure has repeatedly been used to argue against the existence of a determination slot, which can only be filled by one determinative at a time and hence against the article category in Old English (Osawa 2000; Denison 2006; Van de Velde 2010). Obviously, more prose texts will have to be investigated to see how frequent co-occurrence really is.

Before we move on to the next criterion, another aspect needs to be mentioned. It has been argued that the co-occurrence of POSS+DEM/DEM+POSS is a transfer phenomenon from Latin. According to some scholars, this construction is a Latin *calque* (a loan translation) with the observable co-occurrence not being representative of genuine OE syntax but an exceptional Latin loan. This notion has been put forward by scholars investigating manuscript production and medieval translation practices (Mitchell 1985: §108). According to some scholars, the combination of determinatives primarily occurs in texts for which a Latin source is either known or probable. In Latin, co-occurrence of demonstrative and possessive is allowed and we usually find that POSS+DEM/DEM+POSS directly translates a combination of a possessive and a demonstrative in the original Latin source (Wood 2007: 152).

For example, Allen (2004: 16) contrasted the OE Gospel of St. Matthew with its Latin ‘source’ the Vulgate text and finds that in all 4 examples of DEM+POSS a form of OE *þes* is used to translate a form of Latin *hic*, which is why she suggests that the DEM+POSS construction was a ‘marked’ construction which was part of a high style register in Old English favored only by some translators (Allen 2004: 16; 2006: 152–153). Kytö and Rissanen (1993: 258) also show that the construction is favored in certain genres and was probably supported by Latin models. However, Kytö and Rissanen also observe that not many of the OE examples are literal

⁹⁸ Kytö and Rissanen (1993: 255) provide a corpus based study investigating DEM+POSS combinations in Old English, Middle English and Early Modern English.

translations from Latin (1993: 256). They list various examples in which the construction is used in an OE text when no similar pattern can be found in the Latin source. Often the word order in the OE text is completely independent of the order found in Latin.

As a reaction to such statements, I feel the need to analyze these constructions in detail. Examples from native poetry or secular writing must be seen as counter-examples to the suggestion that the pattern is always influenced by its Latin source. More examples are needed, and this criterion will be checked in a larger sample to get more conclusive results (see section 6.2); especially in order to see

- if clear, non-ambiguous examples can be found,
- how frequent those are,
- if the construction without adjectival modification is productive and
- if the construction occurs more often in translations.

Only then can we confirm the (non)productivity of the pattern. If we find that POSS+DEM and DEM+POSS constructions occur frequently, then it can be argued that a particular determination slot has not yet developed because both elements occur in the same noun phrase. If, on the other hand, we find only a few ambiguous examples or primarily examples from translations, then it is much more likely that a determination slot has already emerged and can only be filled by one determinative at a time.

5.5.4 Criterion 4: Relative Position

The next criterion is RELATIVE POSITION: a prehead dependent which occurs to the left of any quantifier and modifier is likely to be an article. An element which occurs to the right of these elements may be something else. Interestingly, OE examples have been listed where the demonstrative pronoun occurs right to the adjective. For example,

- (148) On **wlancan þæm wicge**⁹⁹
 On **proud that horse**
 ‘On that proud horse’ (Battle of Maldon 240)

⁹⁹ Example (145) is taken from Mitchell (1985: 70).

This kind of word order variation and *se*'s claimed ability to 'still float around freely' in the NP also corroborates the statement that no determination slot has emerged yet and that *se* has not taken up article function yet. In a nutshell the argument goes like this: if the speaker had already analyzed the grammatical input in such a way that a determination slot in the leftmost periphery of the NP existed, the speaker would feel the obligation to position the determinative in this fixed location.

Next to the fact that example (148) may not be a valid one,¹⁰⁰ only one example can be found in the PB in which the adjective precedes a form of *se*:

- (149) & þa biscopas Eadnoð & Ælfhun & seo burhwaru
 and the bishops Eadnoth and Ælfhun and the townspeople

underfengon **haligan þone lichaman**
*took up **holy the body***

'and the bishops Eadnoth and Ælfhun and the towns people picked up the holy body'

(cochronE,ChronE_[Plummer]:1012.15.1835)

Here too, it can be argued that *haligan* is a substantive adjective in the genitive to be translated as *the body of the holy (one)*. Once again, the example is ambiguous. In the case of *ān*, no example could be found where the form is used to the right of a modifying element. Therefore I conclude that the criterion RELATIVE POSITION is met in the *Peterborough Chronicle*. Obviously, patterns where a free floating demonstrative occurs to the right of an adjective are not productive. Again, it will be necessary to extend the search to a larger sample (see section 6.3).

5.5.5 Criterion 5: Obligatoriness

The fifth criterion which shall now be applied to determine *se*'s and *ān*'s role in Old English is OBLIGATORINESS. As argued in section 2.3.5, an element is likely to function as an article when it is an obligatory default marker of (in)definiteness. This condition is met in Modern English for definite contexts: singular, plural and non-count common nouns have to be marked obligatorily when they are used in a context where the speaker or hearer knows the entities from previous

100 *wlancan* may be used as a substantive adjective, i.e. *on the horse, the proud (one)*, and thus the sentence could be given a different reading.

discourse, in the intermediate or larger situation, or from general world knowledge, which are all contexts that make it clear that the noun refers to an identifiable entity. In those cases the noun does not occur bare (with a few exceptions), and this is accomplished by using the definite article as a default marker (if definiteness is not expressed indirectly by another determinative, e.g. a possessive). Also, indefinite contexts have to be marked obligatorily in Modern English. Note, however, that this is only the case with singular nouns. With plural count nouns and non-count nouns indefiniteness marking is optional in the sense that indefiniteness can sometimes be marked overtly by an unstressed *some* and *any* or the head noun remains ‘bare’ (see section 2.1). Whatever the situation for plural and non-count nouns may be, the crucial point is that with singular nouns, (in)definiteness marking is obligatory in Modern English.

In contrast to this, one of the most interesting features of Old English is the paradigmatic variability of *se* and *ān*. As was already mentioned in the introduction, examples can be found where the head noun is not accompanied by any determinative in definite and indefinite singular contexts (ex.150 and ex.151).

- (150) & he getimbrade Bebban burh. sy wæs ærost **mid hegge** betined
 and he built Bamburgh. *This was first* *with **stockade** enclosed*

& þær æfter **mid wealle**
*and that after with **wall***

‘and he built Bamburgh which was first enclosed with a stockade and after that with a wall’

(cochronE,ChronE_[Plummer]:547.1.189)

- (151) þa þe nolden ær to his libbendum lichaman onbugan,
 those who would not earlier *to his living body* *bow,*
- þa nu eadmodlice **on cneowum** abugað to his dædum banum
 those now humbly ***on knees** bow* *to his dead bones*

‘those who would not bow to his living body earlier, now bow to his dead bones humbly on their knees’

(cochronE,ChronE_[Plummer]:979.19.1488)

According to Traugott the “absence of *se* is common in possessive constructions involving body parts of a possessor that is subject of the clause” (Traugott 1992: 172). Similarly, Ackles remarks that

[n]ouns in Old English very often appear with a determiner-like or article-like element of one form or another, but can, and very frequently do, appear “bare” in places where Middle or Modern English would require a determiner or the indefinite article (Ackles 1997: 30).¹⁰¹

The non-occurrence of a determiner has also been noted with cases where the noun is unique, e.g. *earth, hell, devil, world, heaven, etc.* In addition, *se* is said to rarely occur before the ordinal directions (*North, South,...*), feasts, divisions of time, and usage is especially variable before *God* (Flamme 1885: 5–27; Wülfing 1894: 278–85; Mitchell 1985: 134). Examples like the ones above and the low frequency of *ān* are the main arguments for the non-existence of the article category in Old English. The criterion of OBLIGATORINESS does not seem to be met.

Again, it is necessary to investigate how frequent the cases of those bare nouns in definite and indefinite contexts really are. The hypothesis is that a high number of bare noun cases is an indication that (in)definiteness marking is still optional and that no determination slot (which has to be filled obligatorily) has emerged yet. In such a scenario, the forms *se* and *ān* have not taken up article function yet. On the other hand, it can be assumed that the fewer the unmarked cases get to be in time, the more likely it is that the system is heading towards some consistent obligatory marking of definiteness.

5.5.5.1 Bare CNPs in the *Peterborough Chronicle*

To investigate this line of reasoning, bare common noun patterns were analyzed in the *Peterborough Chronicle*. As it is impossible to search for unmarked (in)definite contexts in the *YCOE* corpus because NPs in the corpus are neither tagged for (in)definiteness nor for elliptical constructions, I decided to search for one-word NPs including a common noun. In other words, NPs where the CN stands completely alone (unmarked) and is not modified by any additional word. Such a query produces 717 hits. This means that I did not investigate NPs with adjectival modification or posthead modification, e.g. **They met wise man who lived in this land*. It may be the case that also complex NPs exist where (in)definite reference is not marked by a determinative. For example in section 5.2.2, adjectival patterns were discussed. There, it was shown that in some cases, a determinative

101 Especially in poetry the noun is commonly used ‘bare’ in definite contexts without any overt indication. However, when it comes to poetry, this ‘increased bareness’ of nouns in definite contexts may also be due to metrical factors or archaic tendencies (Christophersen 1939: 86–87; Mitchell 1985: 135).

is ‘missing’ although the referent is definite. Thus, it will be necessary in the future to also investigate such constructions in more detail. Still, one-word NPs seem to be a legitimate start to test OBLIGATORINESS.

As the corpus is not tagged for referentiality, I had to sift through every example individually and decide if the NP was referential (definite or indefinite) or non-referential based on the context. As pointed out before, a noun phrase was counted as having definite reference when the referent referred to was a specific, identifiable entity (that was mentioned in the previous discourse or that was clearly inferable from the larger context/world knowledge). Table 28 shows the distribution of indefinite, definite and non-referential bare one-word NPs.

Tab. 28: Relation between non-referential, definite and indefinite context with bare NPs in the *PB*

bare CN NPs	717	OE examples
excluded	49	(proper nouns,...)
I) non-referential (clear cases) e.g. predicative complements	175	<p>a) ...se wæs cining xxiiii wintra //he was king for 24 years (cochronE,ChronE_[Plummer]:639.3.340)</p> <p>b) & se eorl Rodbeard of Norðhymbran nolde to hirede cuman // <i>and the earl Robert of Northumbria would not come to court</i> (cochronE,ChronE_[Plummer]:1095.9.3203)</p> <p>c) & hine he sætte on cweartern // <i>and he put him in prison</i> (cochronE,ChronE_[Plummer]:1086.94.2913)</p> <p>d) & genam frið wið Cantwarum // <i>and made peace with Kent</i> (cochronE,ChronE_[Plummer]:865.1.1074)</p> <p>e) & he sona gerad eall Norðhymbraland him to gewælde // <i>and he soon arranged all the land of Northumbria under control</i> (cochronE,ChronE_[Plummer]:948.1.1364)</p>

II) non-referential/definite (ambiguous cases)	<p>118 f) Se here gewende þa to scipon mid þam þingum þe hi gefangen hæfdon // <i>The army went back to ships [on board] with the things they had seized</i> (cochronE,ChronE_[Plummer]:1016.94.2028)</p> <p>g) Her on þisum geare com æðeling Eadmundes sunu cynges hider to lande // <i>Here in this year came the noblemen Eadward the king's son here to land</i> (cochronE,ChronE_[Plummer]:1057.1.2416)</p>
e.g. idiomatic expressions e.g. 16x <i>her on lande</i> 24x <i>hider to lande</i> (ashore) 15x to <i>scipon</i> (on board) e.g. time expressions	<p>h) Her Eleutherius on Rome onfeng biscopdom // <i>Here Eleutherius in Rome succeeded to bishopric</i> (cochronE,ChronE_[Plummer]:167.1.73)</p> <p>i) Her se eadiga apostol Petrus geset biscopsetl on Antiochia ceastre // <i>Here the blessed apostle Peter occupied bishop's seat in the city of Antioch</i> (cochronE,ChronE_[Plummer]:35.1.46)</p> <p>j) And on þes ylcan geares æfter midewintre se cyng... // <i>And in the same year after midwinter the king ...</i> (cochronE,ChronE_[Plummer]:1083.32.2793)</p> <p>k) ac him com to on niht se apostol Petrus // and <i>came to him at night the apostle Petrus</i> (cochronE,ChronE_[Plummer]:616.4.267)</p>
III) indefinite	<p>305 l) & him aðas sworon // and <i>swore him oaths</i> (cochronE,ChronE_[Plummer]:1086.160.2964)</p> <p>m) & þa gewrohte he weall mid turfum // and <i>then he constructed wall with turf</i> (cochronE,ChronE_[Plummer]:189.1.82)</p> <p>n) & he getimbrade Bebban burh. sy wæs ærost mid hegge betined. & þær æfter mid wealle // and <i>he built Bamburgh. This was enclosed with stockade and after that with wall</i> (cochronE,ChronE_[Plummer]:547.1.189)</p>
IV) definite	70

As a first step, 175 NPs were excluded which were clearly non-referential (I a–e). For example, predicative complements or phrases like *in prison* or *to court*¹⁰² were excluded from further analysis because a non-referential NP does not require an (in)definiteness marker.

¹⁰² In most of them we do not find article usage in Present Day English either.

As a second group (II), I also excluded ambiguous cases, which may either get a definite reading or a non-referential one. For example, we find several idiomatic, fixed phrases which repeatedly occur without a determinative. Although in (f) *to scipon* may get a definite reading ('returned to the ships'), this phrase can easily be interpreted non-referentially in the sense of 'on board'. Other idiomatic phrases, too, repeatedly occur unmarked. Here, I argue that they constitute complex predicates, fixed combinations which must be considered inseparable units, in which the noun can also be interpreted as non-referential. For example, the noun is never modified by an additional element (see h–k). Finally, we find time expressions (e.g. *in winter*, *in spring*) where the noun stays unmarked, although a definite reading 'in this winter' is also possible. Again, I argue that with those time expressions overt definiteness marking is not necessary. Whereas the full prepositional phrase *in winter* is referential and refers to a particular moment in time, the noun within the prepositional phrase is non-referential.

Note that it is obviously very difficult to decide if a noun phrase is clearly non-referential or if a referential reading is also possible. For instance, in example (e) it could be argued that the noun phrase is compatible with a definite reading, in the sense of 'he brought X under his control'. In any case, it was necessary to exclude all ambiguous cases and only focus on those cases where the context is clearly definite or indefinite.

In a third step, the 305 bare cases of singular, plural or non-count common nouns in an indefinite context were identified (III l–n). Most of those (256 hits) are plural and non-count nouns like in (a) and (b). Also in Modern English, indefiniteness in these cases is not marked. However, in 49 examples (e.g. ex.152–154) the head noun is singular and if indefiniteness marking was obligatory, these bare nouns should not be used but should be marked by a determinative.

- (152) Her gesæt Teodorius ærcebiscop **senop** on Hæpfelda
 Here set up Teodorius archbishop **synod** at Hatfield

forþon he wolde þone Cristes geleafan geryhtan
because he wanted *that Christ's beliefs correct*

'Then archbishop Theodore instituted a synod at Hatfield because he wanted to correct the faith of Christ'
 (cochronA-1,ChronA_[Plummer]:680.1.388)

- (153) And gif se eorl forðferde butan **sunu** be rihtre æwe,
 and if the earl *died without [a] son* *by lawful wedlock,*

wære se cyng	yrfenuma of eallon	Normandig
were <i>the king</i>	heir of <i>all</i>	<i>Normany</i>

‘And if the earl died without a son by lawful wedlock, the king would be the heir of all Normandy’

(cochronE,ChronE_[Plummer]:1091.15.3084)

- | | | |
|-------|------------------------------|--|
| (154) | þæt se cyng Melcoln | to uran cynge com. & his man wearð |
| | <i>that the king Malcolm</i> | <i>to our king came and his man became</i> |

to eall swilcre gehyrsumnisse	swa he ær his fæder dyde
<i>in all such obedience</i>	<i>as he before his father did</i>

& þæt mid **aðe** gefestnode
and with **[an] oath** swore

‘that king Malcolm came to our king and became his man with the same obedience as earlier his father did and affirmed it with an oath’

(cochronE,ChronE_[Plummer]:1091.37.3099)

At the same time, as was shown in section 5.4, we find 29 cases where a semantically bleached *ān* is used to mark indefiniteness. This result shows us that indefinite singular contexts remain unmarked significantly more often (63%) than they are marked (37%), a fact which clearly supports the assumption that *ān* cannot be categorized as an article in Old English.

By identifying all non-referential and indefinite cases, only 70 bare instances of singular count, plural count and non-count nouns in a definite context remain. On a closer look, this number includes various special patterns. These are listed in Table 29.

In several instances, the head noun can be analyzed as a complex construction with a genitive noun that functions as a determinative (I). In various appositive constructions (II), it can be argued that no determinative is necessary because the common noun is combined with a proper name which already gives the construction definite reference.¹⁰³ Finally, as shown in (III), in some of the cases the noun is part of a special syntactic construction, in which several referents are combined by coordinative ‘&’; e.g. *slogon abbot & munecas. & eall þæt hi þær fundon*. In many of those listings, reference is clearly definite (e.g. the particular abbot of the Peterborough monastery) but remains unmarked. Whenever such

103 However, note the different OE word order.

enumerations occur, it is frequently the case that no determinatives are used. Thus, I argue that this pattern is a special stylistic device used in Old English.

Tab. 29: Bare definite CNPs in the *PB*

Definite reference	70	bare common noun examples (excluding indefinite contexts)
i) genitive noun-noun	9	a) And ic Æðelred þes kyningas broðer þet ilce tyde mid Cristesmel // <i>And I, Æðelred, the king's brother, grant the same with Christ's mark</i> (cochronE-INTERPOLATION,ChronE_[Plummer]:656.98.460)
ii) appositions	10	b) ...& fram Æðelberhte biscope . // ...and by bishop Æthelberth . (cochronE,ChronE_[Plummer]:791.1.882)
iii) syntax	18	c) on þa ilcan tima þa common hi to Medeshamstede. Beorndon and bræcon. slo- gon abbot & munecas . & eall þæt hi þær fundon // <i>at that time they then came to Peterborough, burned and demolished, killed abbot and monks and all that they found there</i> (cochronE-INTERPOLATION,ChronE_[Plummer]:870.5.1117) d) þa gyrnde he grīðes & gisla. þet he moste unswican into gemote cuman. & ut of gemote // <i>then he asked for safe-conduct and hostages, that he might come into meeting and out of meeting safely</i> (cochronE,ChronE_[Plummer]:1048.68.2297)
IV) bare cases	32	e) þa þe nolden ær to his libbendum lichaman onbugan, þa nu eadmodlice on cneowum abugað to his dædum banum // <i>Those who would earlier not bow to his living body, those now humbly bow on knees to his dead bones.</i> (cochronE,ChronE_[Plummer]:979.19.1488) f) Her sunne aðeostrode on xii kalendæ Iulii // <i>Here sun grew dark on 12th calendar July</i> (cochronE,ChronE_[Plummer]:540.1.183)

If we again exclude all these cases, only 32 instances can be identified where one can argue that a definite determiner is really “missing” (IV). Such a result immediately raises various questions. Are 32 cases a sufficient number to support the free variation argument? I doubt it. After all, one has to compare this number to the thousands of instances in the manuscript where we find a determinative before the common noun to indicate definite reference. In the *Peterborough Chronicle*, a CN is introduced by a demonstrative 2026 times. In 531 cases a possessive pronoun precedes the CN, and in 534 cases a genitive construction (see section

5.2.1). This means that in 3073 cases, a determinative overtly marks definiteness. Thus, the 32 examples fail to support the hypothesis that definiteness marking was still optional.

Before jumping to conclusions, the 32 instances need to be analyzed:

- 9 > *land*/ land, nation, country
- 4 > *fyrð*/ army
- 4 > *sunne*/ sun
- 2 > *cneow*/ knees
- 2 > *cyning*/ king
- 1 > *scip*/ ship
- 1 > *burgh*/ town
- 1 > *tune*/ town
- 1 > *earde*/ earth
- 1 > *heofen*/ heaven
- 1 > *þeodland*/ nation
- 1 > *middangeard*/ earth
- 1 > *gemote*/ meeting
- 1 > *mode*/ mind
- 1 > *wæge*/ way
- 1 > *hærfest*/ harvest

In example (155), a determinative is missing with the noun *fyrð* because in the specific example ‘the [Saxon] army’ was introduced in previous discourse (already overtly marked by *se* several times), so that in the passage a particular army is being talked about; still the noun remains bare:

- (155) þa wæs þær **fyrð** gesomnod æt Cynetan
 *then was there **army** assembled at Kennet*

‘then the army was assembled at Kennet’
 (cochronE,ChronE_[Plummer]:1006.25.1698)

Nevertheless, it could be argued that a spelling mistake may have occurred here with the <r> in *þær* being a <t>. This then would mean that a demonstrative was used. With the words *earde* (ex.156) and *þeodland* (ex.157), *cyning*, *lond*, *scip* and *burgh*, a determinative is also missing.

- (156) & se cyng hine ða geutode **of earde**
 and the king *them banished* *from land*

‘And the king banished them from the land’
 (cochronE,ChronE_[Plummer]:1002.7.1630)

- (157) He wearð wide **geond þeodland,** swiðe geweorðad,
 he became wide *beyond land,* *greatly honoured,*
- forþam þe he weorðode Godes naman georne
 for that he worshipped *God’s name* *eagerly*

‘He became greatly praised all beyond the land for the fact that he worshipped
 God’s name so eagerly’
 (cochronE,ChronE_[Plummer]:959.16.1385)

In general, the relevance of those examples has to be questioned because we find hundreds of examples in the PB where *cyning*, *lond*, *earde*, *fyrd*, *scip* and *burgh* are used with a determinative.¹⁰⁴ Thus it may be the case that the examples listed here are simply scribal errors, where the scribe left out the determinative unintentionally. Similarly, the example below is not a clear-cut case either (ex.158). Although the town referred to in the given context is the particular town of *Sherborne*,¹⁰⁵ the phrase could also be analyzed as an idiomatic, non-referential NP, *in town*.

- (158) & he hæfde þæt biscoprice æt Scireburnan L winter
 and he had *the bishopric* *at Sherborne* *50 years*
- & his lic lið þær **on tune**
 and his body *lies there* *in town*

‘and he held the bishopseat at Sherborn for 50 years and his body lies there in town’
 (cochronE,ChronE_[Plummer]:867.11.1096)

104 For example, *cyning* occurs 581 times with a determinative.

105 Again *tune* is regularly used with the demonstrative or other determinatives in other parts of the *Peterborough Chronicle*.

If we exclude all those cases for the reasons mentioned, the number of 32 is reduced even further. The remaining examples are *sun*, *heaven* or *middangeard* which can be interpreted as inherently definite, similar to proper nouns. They denote entities which in the world knowledge of the speakers are unique and which can thus be identified easily.

- (159) Her **sunne** aðeostrode on xii kl. Iulii
 Here **sun** grew dark on [20 June]

‘Here the sun grew dark on the 20th of June’
 (cochronE,ChronE_[Plummer]:540.1.183)

- (160) & men gesegon read Cristes mel on **heofenum**
 and men saw red Christ sign in **sky**

æfter **sunnan** setlan gange
 after **sun** settling

‘and men saw a red sign of Christ in the sky after the sun went down’
 (cochronE,ChronE_[Plummer]:774.3.815)

- (161) On þam tidum aras Pelaies gedwild geond **middangeard**
 In those times arose Pelagius’ heresy throughout **world**

‘In those times Pelagius’ hersey came to be known throughout the world’
 (cochronE,ChronE_[Plummer]:380.5.101)

Similarly we find two examples including body parts (e.g. knees). Uniqueness also seems to play a role here: there is no need to overtly mark a person’s knees as the speaker conceptualizes his own knees as something unique and thus inherently definite (ex.147). It seems that this special category of unique entities resists determinative usage more often than others, which is why it is worthwhile to investigate this potential group in more detail in order to find out if these nouns never take a determinative or if usage varies. Additionally, an interesting question is whether a determinative is used more consistently with these special nouns in the later periods of the *Peterborough Chronicle*. In other words, the hypothesis is that if those cases are the last ones to resist consistent, overt definiteness marking, they should remain bare more often in the earlier periods and only take up article usage later, when article usage generally spreads to instances of

marking nounhood rather than definiteness. Other words which conceptually could be seen as members of such a group are *moon*, *hell*, *head* or *flood*.

5.5.5.2 *Sun, moon, heaven, hell...unique common nouns in the Peterborough Chronicle*

Table 30 shows the distribution of *se* with unique common nouns in the PB:

Tab. 30: Distribution of *se* with unique common nouns in the PB

	sun <i>sunna</i> (m.)		moon <i>mona</i> (m.)		heaven <i>heofen</i> (m.)		hell <i>hell</i> (m.)		knee <i>cneow</i> (n.)		head <i>heafod</i> (n.)		(middle)- earth <i>middan- geard</i> (m.)		flood/ tide <i>flod</i>	
used with <i>se</i>	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
PB.I		2						1						1		
PB.II	2	1	6		1					1	1					
PB.III											5				1	
PB.IV			4		4	1				1	2	1			1	
Total	2	3	10	-	4	1	-	1	-	2	8	1		1	2	0

As can be seen, obligatory marking in the *Peterborough Chronicle* is not consistent. Whereas *moon* and *flood* are always marked overtly, only *knee*, *hell* and *middleearth* are always used without a determinative. *Head*, *heaven* and *sun* exhibit inconsistent behavior. As the number of hits is very low in the PB, any conclusions drawn from the results can only remain tentative. On the basis of this small sample it is simply impossible to make any claims about a potential diachronic development. What can be seen, however, is that the ‘group’ shows no consistent use of determinatives. Some unique nouns take a determinative, others do not. It remains to be seen if similar tendencies can be identified when investigating a larger text sample.

So far we can only conclude that definiteness marking is already very consistent in the *Peterborough Chronicle*. Most cases which still resist marking can be explained to a large extent. In other words, evidence suggests that the OBLIGATORINESS criterion is met. Does that mean that the criterion is also met in OE prose in general? As a matter of fact, the *Peterborough Chronicle* is a rather late

document. It has been tagged 0.3/0.4 in the *Helsinki Corpus* and the process of obligatorification might be well on its way. I therefore conducted the same search in the *Parker Chronicle*, which is the oldest surviving Anglo-Saxon Chronicle tagged as 0.2/0.3. Again, the results are similar. We find 251 bare CNPs. After all the indefinite and non-referential contexts are subtracted and after all exceptional patterns are excluded, only 8 cases remain, where one could argue for the determinative to be indeed missing. These are:

3x *sun*/ sun
 1x *mona*/moon
 1x *eðele*/gentry, nobility
 1x *hefon*/heaven
 1x *flod*/tide
 1x *middangeard*/middleearth

As can be seen, the nouns found are identical to those found in the PB, except for *eðele*. Again, this suggests that indicating definiteness overtly has become more or less obligatory. Admittedly, it could also be the case that we face a textual artefact here as both chronicles belong to the same genre. As the situation may be different in other genres, other manuscripts will be analyzed as well (see section 6.4).

5.5.6 Criterion 6: Exclusiveness

The next criterion is EXCLUSIVENESS: a prehead dependent which exclusively expresses (in)definiteness is likely to be an article. Generally, as was shown in section 2.2.1, the concept of ‘definiteness’ is quite difficult. It incorporates several semantic notions, e.g. specificity, uniqueness, etc. and often not every feature can be assigned in every case of article usage. In other words, it is very difficult to decide which utterance should be given a definite or indefinite reading. Moreover, it is also very difficult to decide if a noun phrase is incompatible with a deictic or numeric reading. A potential deictic interpretation of *the* is sometimes even possible in Modern English although the article category is well established at that linguistic stage. For example, imagine a woman shopping, who tells the shop assistant *I take the blouse* holding a blouse in her hands. Here, the context suggests that we could read some spatial deixis into *the*.

It has already been shown that in Old English it is often possible to translate *se* either as *this/that* giving it a deictic reading or as *the*, exclusively indicating

identifiability or specificity. The compatibility of definiteness with spatial deixis is obviously the reason why the definite article tends to develop out of a demonstrative in the first place. Most of the examples can thus be interpreted in two ways. For example, in the following passage, there are several examples where a double reading is possible (see line 2, 6, 7, 15 and 21):¹⁰⁶

1	Her com Swegen mid his flotan to Norðwic.	Here Swein came with his fleet to Norwich,
2	& þa burh ealle gehergade. & forbærndon.	and completely raided and burned down
3		that/the town.
4	þa gerædde Ulfkytel wið þa witan on East	Then Ulfcytel decided with the council-
5	Englum. þæt him bætere weron þæt man	lors in East Anglia that it would be better
6	wið þone here friðes ceapode. ær hi to my-	that they [one] made peace with that/the
7	celne hearm on þam earde gedydon.	enemy army , before they did too much
8	forþam þe hi unwares comon. and he fyrst	harm in that/the country , because they
9	næfde þæt he his fyrde gegadrian mihte. ða	came unexpectedly and he had no time in
10	under þam griðe þe heom be tweonan beon	which to gather his army. Then under the
11	sceolde. þa bestea se here up fram scipon.	truce which should have been between
12	and wendan heora fore to þeodforda.	them, the army stole up from the ships and
13		turned their force to Thetford.
14	ða Ulfcytel þæt undergeat. þa seonde he þæt	Then when Ulfcytel realized that, he sent
15	man sceolde þa scipu to heawan. ac hi	that they [one] should chop up those/ the
16	abruðon þa ðe he to þohte. and he þa	ships . But those, who he thought of failed
17	gegaderode his fyrde diglice swa he swyðoost	and then he secretly gathered his army as
18	muhte.	fast as he could.
19	se here com þa to þeodforda binnon iii	And the enemy army then came to Thet-
20	wuca þæs þe hi ær gehergodon Norðwic. and	ford, within three weeks that they had ear-
21	þær binnon ane niht wæron. and þa burh	lier raided Norwich. And were there one
22	hergodon & forbærndon.	night, and raided and burned down
		that/the town.

A factor that could help to distinguish articlehood is stress. As early as Wülffing (1894: 277–287) some philologists tried to only count those instances of *se* which do not carry stress as ‘definite articles’. But working on OE prose data, stress is a problem. There may have been a difference in the pronunciation of *se* as demonstrative and as article, and at some point in time the latter must have become unstressed (i.e. using a schwa /ə/). This, of course, is not marked in writing (Christophersen 1939: 96), and thus we cannot distinguish when *se* clearly carries emphasis (Mitchell 1985: 128).

106 (cochronE,ChronE_[Plummer]:1004.1.1650_ID to 1004.11.1662_ID). The Modern English translation is taken from Swanton (1996: 135) but was slightly adapted.

In the passage above, we find one case (line 19) where a non-deictic reading makes far more sense because the determinative is used as an anaphoric reference marker (the referent *the army* has been introduced earlier in line 11). One could argue that as soon as such an example can be found in a text, we have to speak of article usage. The question, however, is how many of these semantically bleached cases we have to identify to safely argue for the existence of an article.

We find a similar albeit less complex situation for *ān*. In section 5.4 it was shown that it is indeed possible to identify contexts where *ān* is undoubtedly used as a numeral. At the same time, in other examples an indefinite reading is much more likely. However, a numerical reading is often possible as well. Therefore, this criterion is not very reliable. Nevertheless, I will come back to this criterion in section 6.1.

5.5.7 Criterion 7: Syntactic Motivation Only

Closely related to the EXCLUSIVENESS criterion is the last criterion SYNTACTIC MOTIVATION ONLY, which also turns out to be difficult to apply. It has been suggested that a prehead dependent which is exclusively syntactically motivated is likely to be an article. As was discussed in section 2.3.7, articles often reach a developmental state in the grammaticalization process, in which semantic content has bleached so much that the articles – at least in some languages – function as nominalization-markers only (Lehmann 1995: 38–39). An example for such usage in English is the article's usage together with generic reference, e.g. *The/A lion is a dangerous animal*. Here, *the* and *a* refer to the species, type or class and not to a particular referent. In that sense, it can be argued that the article is 'syntactically' motivated rather than 'semantically'.

Several typological studies have shown that using an article in such cases does not reflect an early stage in the grammaticalization process (Lyons 1999: 340). That is why it seems unlikely that in Old English, where the article is only about to develop, one will find such examples. Traugott claims that "[g]eneric NPs introduced by the incipient definite article clearly exist in OE" (1992: 176). She lists the following example:

- (162) **Se lareow** sceal bion on his weorcum healic, ðæt he on his life
 The/A teacher must be in his works excellent, that he in his life

gecyðe	lifes weg his hiermonnum
may teach	life's way to his followers

'A teacher must be excellent in his work, so that in his life he may teach life's way to his followers'

(cocura, CP:14.81.1.525)

Here, however, the NP may not be generic after all. The passage, taken from the *Cura Pastoralis*, reports on the 'ideal' teacher,¹⁰⁷ so that it could be argued that the author speaks about a specific type of teacher (in the set of all possible teachers), which would explain definiteness marking.

Generally, it again seems necessary to confirm this particular usage by finding examples in the texts investigated in this study. In the *Peterborough Chronicle* a demonstrative combines with a common noun 2026 times. In order to investigate the possibility that *se* is used with generic reference, these examples had to be analyzed. I decided to only analyze instances where the head noun takes a nominative case and thus can be presumed to function as a Subject. Admittedly, this decision was mostly made to reduce the number of NPs which had to be analyzed. On top of this, however, this procedure seems reasonable because Subject-NPs (which occur in the nominative in Old English) are more likely to have generic reference (e.g. *The Lion is a dangerous animal*).

There are 755 examples where the head noun has a nominative case and all of them were analyzed in their context one by one. I was trying to detect instances where *se* is used to refer to a type or class (in a more or less non-referential way) and not to a specific, identifiable referent, which has been introduced in the text or can be inferred from world knowledge. As a matter of fact, in none of the 755 examples is *se* used with generic reference. This then does not seem to be compatible with the assumption that *se* was used as a sheer marker of nounhood. Similarly, *ān* is also never used in a generic context in the PB. None of the 85 examples is used with a generic referent. The non-existence of the pattern implies that the criterion SYNTACTIC MOTIVATION ONLY is not met in the *Peterborough Chronicle*.

Admittedly, the lack of this structure in my sample is inconclusive.¹⁰⁸ First of all, it might be the case that we find such a pattern in the 1271 examples which

107 In several sections, the behavior of the ideal priest, the ideal teacher and the ideal ruler, etc. are discussed (see Sweet 1958: 74–172).

108 It might be possible that we face a textual artifact. No examples may be found because a) the *Peterborough Chronicle* is simply too small in sample size or b) because – in terms of its genre

were not investigated or in other OE texts. However, based on the evidence in the PB, I do not expect to find many examples which clearly prove the existence of the pattern. Secondly, the criterion is problematic for another reason. Even if it can be confirmed that *se* or *ān* are not used with generic reference, this does not prove that the forms are not articles. *Se* and *ān* could be used as obligatory default markers to indicate (in)definite reference in a fixed syntactic position – something that we have decided to be a strong indication for articlehood – but at the same time they may not be used with generic reference, at least not yet. The forms may take up that function only later in time, e.g. in the late OE period or the ME period. Therefore, the SYNTACTIC MOTIVATION ONLY criterion will not be investigated any further.

5.6 Concluding remarks: evaluating the criteria for articlehood

In the last subsections, I have presented my results on the diachronic development of the forms *se* and *ān* in the *Peterborough Chronicle* and the *Parker Chronicle*. It has been shown that generally the demonstrative is the most frequently used determinative to mark definiteness. Moreover, it could be confirmed that the demonstrative is used more or less consistently in combination with weak adjectives. I have also traced the development of *se* diachronically. Generally, it can be said that the token frequency of [*se*+CN]_{NPdef} significantly increases in time. Also the occurrence of the compound demonstrative *þes* almost doubles from the first period to the last period. Finally, the usage of *se* with proper nouns is very rare and also *ān* is used very rarely as a prehead dependent. Most of the time it clearly functions as a numeral.

Regarding the criteria for articlehood, applying some of them has not led to conclusive results. Either it was impossible to apply them successfully, or the results turned out to be irrelevant. As can be seen in Table 31, the criteria PREDICATION and INDEPENDENCE could be applied, but the results are not relevant for the status of *se* and *ān* as determinatives. *Se* and *ān* are only used independently (or predicatively) in their role as independent pronoun or numeral, something that has nothing to do with their function as a determinative. Additionally, the EXCLUSIVENESS criterion is extremely difficult to apply. In the case of *se* it is not really possible to identify those contexts where the form exclusively expresses

– the chronicle mostly refers to concrete, unique events where specific people and specific events are being listed.

definiteness. It is slightly easier to evaluate the status of *ān*, but in the end any classification is mostly subjective. With regard to SYNTACTIC MOTIVATION ONLY it has turned out that finding no evidence for the usage of *se* with generic reference does not enable us to successfully demarcate the article category either.

Tab. 31: Criteria for articlehood in the *Peterborough Chronicle*

CRITERION	criterion could be applied	criterion met	conclusive/ inconclusive	suggests det. slot and article function
	<i>se/ān</i>		<i>se/ān</i>	
NO INDEPENDENCE: a prehead dependent which cannot occur independently of its head is likely to be an article	yes	no/no	inconclusive	
NO PREDICATION: a prehead dependent which cannot func- tion as a predicative complement is likely to be an article	yes	yes/no	inconclusive	
NO CO-OCCURRENCE: a prehead dependent which cannot co-oc- cur with itself or other determinatives is likely to be an article	yes	yes/no	conclusive	yes/ no
RELATIVE POSITION: a prehead dependent which occurs to the left of any quantifier or modifier is likely to be an article	yes	yes/yes	conclusive	yes/ yes
OBLIGATORINESS: a prehead dependent which is an obliga- tory default marker to indicate (in)definite- ness is likely to be an article	yes	yes/no	conclusive	yes/ no
EXCLUSIVENESS: a prehead dependent which exclusively expresses (in)definiteness is likely to be an article	no			
SYNTACTIC MOTIVATION ONLY: a prehead dependent which is exclusively syntactically motivated is likely to be an article	yes	no	inconclusive	

Only the three criteria NO CO-OCCURRENCE, RELATIVE POSITION and OBLIGATORINESS have turned out to be ‘useful’ criteria. All of them could successfully be applied and the results suggest that the *Peterborough Chronicle* mirrors a grammar in which

- definiteness has to be marked obligatorily but indefiniteness does not
- determinatives are regularly positioned left of modifiers and quantifiers
- determinatives do not co-occur with each other.

At the same time, the results suggest that whereas *ān* definitely did not function as an article, it can be argued that *se* did (if the most important criterion for articlehood is obligatoriness). Admittedly, due to the small size of the manuscript, sometimes only a handful of examples could be found. Many examples are ambiguous and had to be dismissed as evidence. The low frequency of the remaining examples (e.g. in the case of bare noun NPs) makes it hard to interpret their relevance. For example, with the OBLIGATORINESS criterion it had to be decided if the 32 examples of bare noun CNPs in definite contexts constitute enough evidence to argue against the existence of an ‘obligatory marking rule’. I have argued that 32 cases do not seem to mirror a system that allows for definiteness marking to be optional.

I therefore continue the investigation by analyzing more texts in chapter 6, in particular some of the earliest texts available; those which have been marked ‘o.2’ in the *YCOE*. This increases the scope of the investigation (larger sample) and enables us to answer the following questions:

- Does the semantic and syntactic behavior of the forms *se* and *ān* in other OE manuscripts (e.g. Latin translations) strongly differ from their use in the chronicles?
- Are the forms *se* and *ān* used differently in early OE texts (compared to late OE texts)?

If it can be shown that the syntactic and semantic behavior of *se* and *ān* in early Old English strongly differs from later usage (represented by o.3/o.4 texts), this suggests a change in the grammar.

6 Nominal determination in Old English prose

The art of approaching constructional change with a corpus-based methodology is thus to operationalize theoretical questions about language change in such a way that frequencies drawn from corpus data can provide evidence for or against a given hypothesis, or facilitate the exploratory description of a constructional change. (Hilpert 2013: 8)

The empirical investigation was extended to several other OE manuscripts. Next to the *Peterborough* and the *Parker Chronicle* the following texts were analyzed:

Tab. 32: Investigated OE manuscripts

manuscripts	filetag	period		word count	Latin translation	manuscript in YCOE
Peterborough Chronicle	PB	o.3/4	late	40,641w	original	cochronE.o34
Ælfric's Lives of Saints	LOS	o.3	late	100,193w	original	coalelive.o3
Ælfric's Catholic Homilies	CH	o.3	late	106,173w	original	cocathom1.o3
Parker Chronicle	PA	o.2/3	early	14,583w	original	cochronA.o23
Blickling Homilies	BH	o.2/3	early	42,506w	original	coblick.o23
Laws of Alfred	LAW	o.2	early	3,314w	original	colawaf.o2
Laws of Alfred Introduction	LAWI	o.2	early	1,966w	original	colawafint.o2
Laws of Ine	INE	o.2	early	2,755w	original	colawine.ox2
Gregory's Dialogues	GD	o.2/4	early	91,553w	translation	cogregdC.o24
Bede's History of the English Church	BED	o.2	early	80,767w	translation	cobede.o2
Boethius	BOS	o.2	early	48,443w	translation	coboeth.o2
Cura pastoralis/ The Pastoral Care	CUR	o.2	early	68,556w	translation	cocura.o2
Orosius	OSI	o.2	early	51,020w	translation	coorosiu.o2

The texts show regional variety and belong to different genres and centuries. This is the reason why we should not regard these texts as forming one corpus sample, but rather interpret them as separate texts to be investigated individually. At the same time it is possible to classify the manuscripts as either early or late OE texts. The majority of manuscripts are early OE texts because this investigation focuses

on the morphosyntactic changes in the earliest attested linguistic stage of English. However, also three late OE texts were investigated (for further information about the manuscripts see the Appendix). This enables us to investigate whether time is a variable that influences the distribution of *se* and *ān* (see sections 6.1.1 and 6.2.2).

By the choice of the 13 manuscripts above, I have also tried to create a balanced sample between translations and original texts. 5 of the manuscripts are translations from Latin but 8 texts are originals. Analyzing secular, non-Latin prose (e.g. legal documents, laws, wills, or works on medicine and geography) is of interest because one can expect a certain originality in this text type. However, the majority of the earliest surviving OE prose texts are religious translations from Latin. Analyzing a Latin translation might turn out to be problematic, because Latin had no articles and the translator possibly transferred syntactic constructions from the source language. This potential Latin influence motivated me to investigate the variable text type (translation vs. non-translations) in more detail (sections 6.1.1 and 6.2). It remains to be seen whether the usage of *se* and *ān* differs in the respective texts.

6.1 Basic determination patterns

The nominal determination patterns discussed in the last chapter (Table 17) were once again investigated and the results are presented in Table 33 and 34. While Table 33 lists the raw numbers, Table 34 offers percentages. It can be observed that in all the texts, *se* is used more often than other determinatives to mark definite reference. The [DEM+CN]_{NPdef} construction makes up between 23% and 36% of all CNPs in the respective documents. Only in the three law texts is the percentage lower (around 20%), which is probably a genre issue. It seems reasonable to assume that in a law text fewer examples of NPs with definite reference can be found, because such a text makes very general statements about human interaction, e.g. *If a farmer kills an ox of some neighbor*, etc. Not many cases of unique, specific referents can be expected here. Additionally, in law texts individual legal cases are listed one after the other and no narrative structure (with the use of anaphoric reference markers) emerges.

In contrast to the high number of [DEM+CN]_{NPdef}, the definite construction [POSS+CN]_{NPdef} only makes up between approximately 6% and 15% in the texts. The [GenP+CN]_{NPdef} construction occurs in a range between approx. 5% and 12% in all the manuscripts. It must be pointed out that in all the texts only those three constructions ([DEM+CN]_{NPdef}, [POSS+CN]_{NPdef}, [GenP+CN]_{NPdef}) with only one element preceding the head make up between 45% and 55% of all CNPs. This finding

should not be underestimated. After all, one might expect a higher percentage of constructions with a more complex prehead (e.g. adjectival modification) or fewer contexts in which a demonstrative is being used. Importantly, this frequency distribution – with the demonstrative being used 3 times more often than other determinatives and the majority of NPs having only one prehead element – will be crucial for the line of argumentation to come (see chapter 7).

Adjectival modification varies in the manuscripts. The constructional pattern [DEM+ADJ+CN]_{NPdef} is only used about 2% in the law texts, but it is used much more in the homilies or the philosophical and religious texts (around 10%). This may again be a matter of genre. Descriptive narratives are stylistically more complex, and it is to be expected that adjectival modification is more likely in a philosophical or religious manuscript than in a law text or a chronicle. In any case, [DEM+ADJ+CN]_{NPdef} clearly is a productive construction in Old English. In contrast, the construction [DEM+PN]_{NPdef} with a proper noun head is used as rarely as in the chronicles – between 2% and 5% – with *Boethius* being the exception with a slightly higher percentage (7.8%). In other words, it can be concluded that in the vast majority of cases, proper nouns in Old English (like in Modern English) are not accompanied by a determinative.

Ān collocates with a common noun very rarely in all the manuscripts. All together there are only 1075 examples of the [*ān*+CN]_{NPindef} construction. As *ān* is tagged as a numeral in the YCOE corpus, this number also includes all the examples where *ān* is clearly used as such. Still, the usage of *ān* is extremely infrequent, even if those cases are included in the calculation (between 0.4% and 2.2%). Again, it is of interest to exclude those instances from the calculations and identify the contexts in which *ān* is exclusively used as a semantically bleached marker of indefiniteness. Although it is a subjective endeavour to decide on the EXCLUSIVENESS status of *ān*, I analysed all the 1075 examples individually and identified the cases where *ān* is clearly used as a numeral e.g. *one year, one night, one X but many Y....* After subtracting those instances, the number of hits turns out to be extremely low (0.15%–1.44% see Table 33 for results). This definitely mirrors the findings in the *Anglo-Saxon Chronicle* and supports the assumption that *ān* was not used as an obligatory marker of indefiniteness.

Table 33: (in)definite NP patterns in OE prose (raw frequency)

(in)definite NP patterns													
NPs total (incl. Pro, PN, CN)	15972	36606	40120	6208	15821	1572	848	1261	31824	31412	17042	25151	20245
	6093	14715	17150	2140	6298	637	256	526	13108	12577	5960	8568	6709
	2865	3770	3529	1756	1346	15	39	13	2160	3005	357	801	3034
Dem + CN	2026	3951	4207	562	1498	135	51	110	4707	3246	1801	3119	2208
Poss + CN	531	1984	2290	135	855	52	39	68	1373	1359	644	1184	765
Genitive Phrase + CN	534	1034	1556	262	657	51	16	32	1300	1483	288	554	659
Dem + Adjective + CN	258	1617	1691	119	733	11	6	10	1733	1353	595	788	346
Dem + Poss + CN	0	2	0	0	19(15)	0	0	2	30(29)	13(10)	16(13)	5(4)	1
Poss + Dem + CN	0	0	0	0	7	0	2	0	7	3	1	0	0
Dem + Poss + Adj + CN	1(0)	0	0	0	3	0	0	0	3	2(1)	1(0)	0	0
Poss + Dem + Adj + CN	2	1	4	0	40	0	0	0	37	24	2	2	11
Adj + Dem + CN	1	0	0	1	2	0	0	0	2	8	2	4	2
Dem + PN (sg. and pl. PNs)	79	112	77	38	46	0	0	0	331	109	28	39	103
<i>ān</i> + CN	84	251	231	40	27	6	2	4	116	57	67	44	146
<i>ān</i> + CN (excl. numeral usage)	29	179	94	14	10	1	0	2	77	19	24	15	97
<i>ān</i> + Adj + CN	9	71	27	4	1	0	0	0	13	6	8	3	28
Adj + <i>ān</i> + CN	0	0	0	0	0	0	0	0	0	0	0	0	0
Poss/Dem + <i>ān</i> + CN	2	13	7	1	2	0	1	0	9	1	12	6	10

Table 34: (In)definite NP patterns in OE prose (%)

(in)definite NP patterns	<i>Peterborough Chronicle</i> , no trans.	<i>Ælfric Lives of Saints</i> , no trans.	<i>Ælfrics Catholic Homilies</i> , no trans.	<i>Parker Chronicle</i> , no trans.	<i>Blickling Homilies</i> , no trans.	<i>Laws of Alfred</i> , no trans.	<i>Laws of Alfred</i> , introduction, no trans.	<i>Laws of Ælfred</i> , no trans.	<i>Gregorys Dialogues</i> , yes trans.	<i>Bede's History of the English Church</i> , yes trans.	<i>Boethius</i> , yes trans.	<i>Cura pastoralis</i> , yes trans.	<i>Orosius</i> , yes trans.
NPs total (incl. Pro, PN, CN)	15972	36606	40120	6208	15821	1572	848	1261	31824	31412	17042	25151	20245
CNPs	6043	14715	17150	2140	6298	637	256	526	13108	12577	5960	8568	6709
PNPs	2865	3770	3529	1756	1346	15	39	13	2160	3005	357	801	3034
Dem + CN (% in CNPs)	33.4%	26.9%	24.5%	26.3%	23.8%	21.2%	19.9%	20.9%	35.9%	25.8%	30.2%	36.4%	33%
Poss + CN	8.7%	13.5%	13.4%	6.3%	13.5%	8.2%	15.2%	12.9%	10.5%	10.8%	10.8%	13.8%	11.4%
Genitive Phrase + CN	8.8%	7%	9.1%	12.2%	10.4%	8%	6.3%	6.1%	9.9%	11.8%	4.8%	6.5%	9.8%
Dem + Adjective + CN	4.2%	11.6%	9.9%	5.6%	11.6%	1.7%	2.3%	1.9%	13.2%	10.8%	10%	9.1%	5.2%
Dem + Poss + CN	0	0.01%	0	0	0.3%	0	0	0.38%	0.23%	0.1%	0.27%	0.06%	0.01%
Poss + Dem + CN	0	0	0	0	0.1%	0	0.78%	0	0.05%	0.02%	0.02%	0	0
Dem + Poss + Adj + CN	0.01%	0	0	0	0.05%	0	0	0	0.02%	0.02%	0.02%	0	0
Poss + Dem + Adj + CN	0.03%	0.01%	0.02%	0	0.64%	0	0	0	0.28%	0.19%	0.03%	0.02%	0.16%
Adj + Dem + CN	0.01%	0	0	0.04%	0.03%	0	0	0	0.015%	0.06%	0.03%	0.04%	0.03%
Dem + PN (% in PNPs)	2.7%	3%	2.2%	2.2%	3.4%	0	0	0	15.32%	3.6%	7.8%	4.9%	3.4%
ān + CN	1.4%	1.7%	1.3%	1.9%	0.4%	0.94%	0.78%	0.76%	0.88%	0.45%	1.1%	0.5%	2.2%
ān + CN (excl numeral usage)	0.47%	1.2%	0.54%	0.65%	0.15%	0.15%	0	0.4%	0.58%	0.15%	0.4%	0.17%	1.44%
ān + Adj + CN	0.14%	0.5%	0.2%	0.2%	0.01%	0	0	0	0.09%	0.05%	0.1%	0.03%	0.4%
Adj + ān + CN	0	0	0	0	0	0	0	0	0	0	0	0	0
Poss/Dem + ān + CN	0.03%	0.08%	0.04%	0.04%	0.03%	0	0.39%	0	0.07%	0.007%	0.20%	0.07%	0.15%

6.1.1 Testing the variables ‘historical period’ and ‘text type’

One of the research questions posed is whether *se* and *ān* increase in their frequency in time. A strong frequency increase is indirect evidence for the fact that the two grammaticalizing words have changed their categorical status. This question was already investigated in section 5.3 by splitting up the *Peterborough* and the *Parker Chronicle* into periods, where it was shown that the demonstrative increases in token frequency.

The issue will now be investigated once again by checking whether the late manuscripts differ from the early manuscripts in their usage of the two determinatives. Next to the question whether time plays a role, it is also worth investigating if there is a difference between translations and non-translated texts. Thus, the two variables tested were ‘historical period’ (early vs. late Old English) and ‘text type’ (translation from Latin vs. original) (also see section 6.2.2 for co-occurrence).

Let us start with the results for the demonstrative. For the readers’ convenience, Table 35 once again shows how many CNPs exist in the manuscripts and how many of them (raw frequency) belong to the constructional type [DEM+CN]_{NPdef}:

Tab. 35: Distribution of [Dem+CN]_{NPdef}

construction	PB	LOS	CH	PA	BH	LAW	LAWI	INE	GD	BED	BOS	CUR	OSI
CNPs	6093	14715	17150	2140	6298	637	256	526	13108	12577	5960	8568	6709
Dem+CN	2026	3951	4207	562	1498	135	51	110	4707	3246	1801	3119	2208
rest	4067	10764	12943	1578	4800	502	205	416	8401	9331	4159	5449	4501

Using these data points, we ran a multivariate mixed logistic regression model (generalized linear mixed model with logit link, GLMM) with fixed effects being the ‘historical period’ (early vs. late; early as baseline) and the ‘text type’ (original vs. translation; original as baseline). As random effect the model integrates ‘text’ as the grouping variable (random intercept). The investigated dependent variable was the ‘construction type’ (Dem+CN vs. other CN; other CN as baseline). Table 36 and Figure 12 visualize the results. It can be seen that items which occur late

or in translated texts are significantly more likely to be a [DEM+CN]_{NPdef} construction than early items in original texts ($p=0.019$ and $p<0.001$, respectively).¹⁰⁹

Tab. 36: GLMM of construction type (Dem+CN vs. other CN) depending on type and period with text as random intercept (SD=0.16; 13 groups; N=94737). Significance code: ‘*’ $p<0.05$; ‘***’ $p<0.01$; ‘****’ $p<0.001$.

	Coefficient β	SE	Effect on OR	p	Significance
Intercept	-1.22	0.08	0.29	<0.001	***
type (translation)	0.48	0.11	1.61	<0.001	***
period (late)	0.28	0.12	1.33	0.019	*

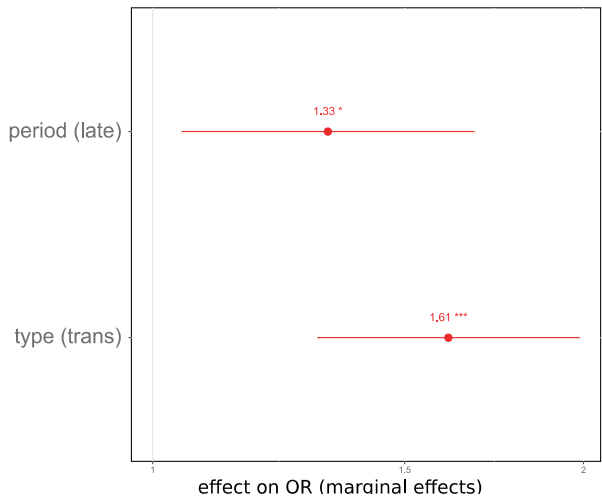


Fig. 12: Fixed effects of period and type on the odds of being Dem+CN vs. other CN (odds ratio, OR)

109 The advantage of such a model – in contrast to a simple chi-square test – is that it captures the impact of multiple variables on constructional choice at once while at the same time taking into account that data points are grouped in that they are taken from the same text. All computations were done in R (R Core Team 2017). GLMMs were computed with the *lme4* package (Bates et al. 2015) and visualized with *sjPlot* (Lüdtke 2017).

In Figure 12, the vertical dashed line (OR=1) represents the null-hypothesis of having no effect at all. For a CNP construction, both period and type exert significant effects on the likelihood of being [DEM+CN]_{NPdef}. In late texts, the odds of being [DEM+CN]_{NPdef} are (multiplicatively) increased by 1.33 ($\beta=0.28$; $p<0.019$). Text type exerts an even stronger effect; the odds are increased by 1.61 ($\beta=0.48$; $p<0.001$).

The results clearly support the hypothesis that the [DEM+CN]_{NPdef} construction becomes more frequent in time because the demonstrative is taking up its article function. At the same time, it is less clear why the variable ‘translation’ has such a significant effect. It might play a role that the translations from Latin are mostly religious, philosophical treatises with longer paragraphs and many anaphoric references which stay on topic but this, admittedly, is purely speculative unless we analyze all the text in much more detail.

However, the picture is less clear than it might seem because the texts do not behave in a uniform manner. Figure 13 shows that some texts (random effect in the model) score significantly above average (PB, CUR, PA, GD) while others show a significantly reduced use of [DEM+CN]_{NPdef} constructions (CH, BED).

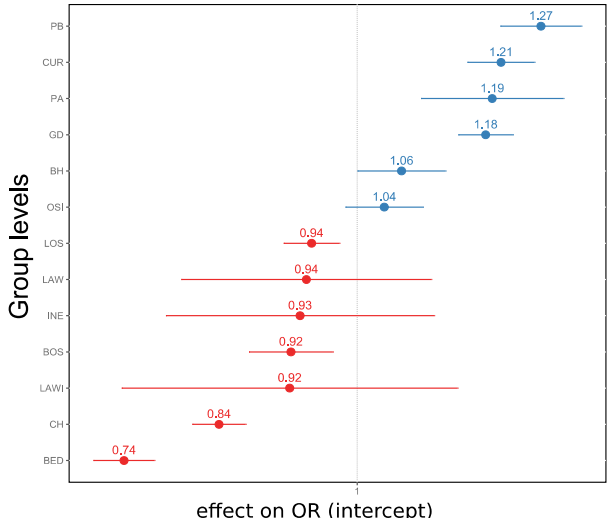


Fig. 13: Effects of text on the intercept of the model (random intercept; effects shown on the OR scale)

The values in Figure 13 can be interpreted like this: they denote the expected use of [DEM+CN]_{NPdef} constructions under the *ceteris paribus* assumption that all texts

are original and belong to the early period. Thus, some texts show significantly less use of the [DEM+CN]_{NPdef} construction than expected ; while others show significantly more use of the demonstrative than expected.

All these individual differences show that the texts are very different from each other. These differences presumably reflect content, genre and style. This is the reason why I have repeatedly pointed out that although we can make some generalizing statements about the morphosyntactic features of OE prose or argue that there are particular characteristic features of OE translations, we should always keep in mind that in the end the individual text may deviate from the identified norms.

Let us move on to the [*ān*+CN]_{NPindef} construction. As was mentioned earlier, *ān* is hardly used. Table 37 once again shows its distribution in the respective texts:

Tab. 37: Distribution of [*ān* + CN]_{NPindef}

construction	PB	LOS	CH	PA	BH	LAW	LAWI	INE	GD	BED	BOS	CUR	OSI
CNPs	6093	14715	17150	2140	6298	637	256	526	13108	12577	5960	8568	6709
<i>ān</i> +CN (excl. num)	29	179	94	14	10	1	0	2	77	19	24	15	97
rest	6064	14536	17056	2126	6288	636	256	524	13031	12558	5936	8553	6612

A similar GLMM was used to calculate whether *ān* as a bleached marker of indefiniteness is used more often in the late texts or in translations. The results reveal that the factor ‘translation’ does not play a role this time. It is not the case that the [*ān*+CN]_{NPindef} construction occurs more often in translations (see Table 38, Figure 14). Text type plays no statistically relevant role, probably due to the relatively small number of [*ān*+CN]_{NPindef} constructions in the sample. However, time seems to be a relevant factor. We can observe that *ān* is used more often in the later texts. Still, this result is only marginally significant. Extension of the dataset by more late OE texts might change the picture towards significance, in the sense that I expect to find many more examples of *ān* in other late OE texts.

Tab. 38: GLMM of construction type (*ān*+CN vs. other CN) depending on type and period with text as random intercept (SD=0.66; 13 groups; N=94737). Significance code: ‘*’ p<0.05; ‘**’ p<0.01; ‘***’ p<0.001.

	Coefficient β	SE	Effect on OR	p	Significance
Intercept	-5.97	0.36	0.0025	<0.001	***
type (translation)	0.45	0.46	1.56	0.33	
period (late)	0.99	0.51	2.69	0.05	(*)

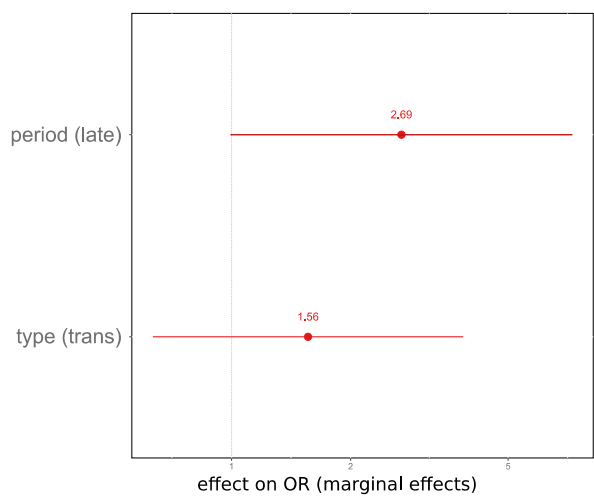


Fig. 14: Fixed effects of period and type on the odds of being *ān*+CN vs. other CN (odds ratio, OR)

Again, it is interesting to look at the manuscripts individually. This time the texts are much more similar to each other. *Orosius*, the *Parker Chronicle* and *Lives of Saints* show a high number of *ān* whereas *Bede* and the *Cura Pastoralis* show a significantly lower number (Fig. 15).

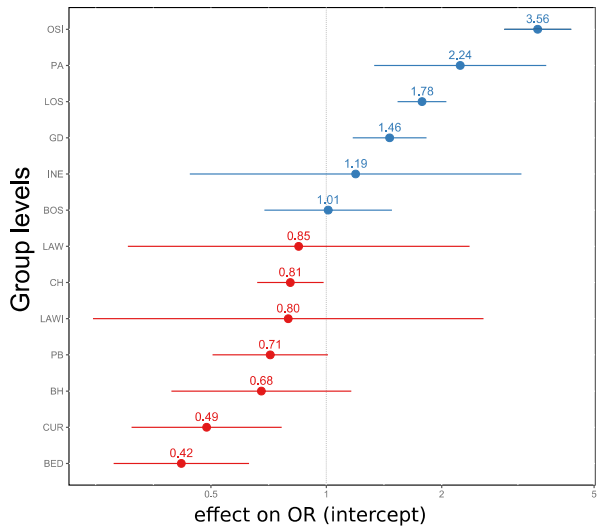


Fig. 15: Effects of text on the intercept of the model (random intercept; effects shown on the OR scale)

In the end it must be concluded that my investigated data do not show any statistically significant increase of $\bar{a}n$. This of course is not surprising as the work by Rissanen and others tells us that $\bar{a}n$ used as an article spread later (in Middle English). In that sense, Old English is not really the period to determine the trajectory of the form $\bar{a}n$. What can be investigated, however, are the specific bridging contexts in which $\bar{a}n$ starts to loose its numerical status (see section 5.4).

I also would like to draw the reader's attention to the middle section of Table 34. In most of the investigated manuscripts the demonstrative and the possessive co-occur. Especially in the o.2 manuscripts which are translations from Latin more instances of co-occurrence and unusual (word order) patterns seem to occur. The number of these examples is still extremely low ($< 1\%$ of all CNPs), but it seems that there are more hits in the early texts than in the later ones (compare the number of hits in the o.3 texts in the left columns with the o.2 texts in the middle and right columns. This is why those unusual determination patterns shall be studied in more detail in the following sections. In other words, I will once again investigate the NO CO-OCCURRENCE and the RELATIVE POSITION criterion. Afterwards, the OBLIGATORINESS criterion will be investigated.

6.2 Criterion 3: No Co-occurrence

As was shown in the last chapter, co-occurrence of POSS+DEM/DEM+POSS is very rare in the *Peterborough Chronicle*. No instances of POSS+DEM/DEM+POSS without adjectival modification could be found in the manuscript. The infrequent use of the construction was the main reason to investigate this pattern in other manuscripts. If more examples of co-occurrence can be found in the earlier manuscripts, we can assume that some kind of network change in the construction must have taken place in the sense that the constructional family of POSS+DEM constructions was lost (i.e. dissolved in the network; see chapter 7).

The demonstrative collocates with the possessive in all the investigated 0.2 manuscripts in 241 examples, except in the *Parker Chronicle* which shows no co-occurrence. This may seem to be a relatively high number at first, but it is essential to understand that the number of co-occurrence patterns constitutes less than 0.5% of all CNPs in every text (except one document, namely the *Blickling Homilies* with 0.64%). This clearly shows that the co-occurrence of DEM+POSS is not a productive pattern at all; a point I will come back to in section 6.2.2.

In contrast to the *Anglo-Saxon Chronicle*, instances of [DEM+POSS+CN]_{NPdef} and [POSS+DEM+CN]_{NPdef} without adjectival modification can be found. Table 33 shows that the search query produces hits for all of the four types of co-occurrence patterns in the *Blickling Homilies*, *Gregory's Dialogues*, *Bede* and *Boethius*.¹¹⁰

The [DEM+POSS+ADJ+CN]_{NPdef} construction is rare in the texts. All in all, the construction is only used 10 times.

- (163) þa sumu we nu gemdon geþeodan
 which some we now *have taken care to insert*

in **þis** user ciriclice stær
in **this our ecclesiastical history**

'of which some we now have taken care to insert in this our ecclesiastical history'
(cobede, Bede_4:8.282.20.2857)

- (164) Hu ne is þæt þeah **sio eowru hehste gesælð** þara cyninga anweald?
 How not is that, however **this your highest felicity** *the kings' power?*

'Is it not the case, however, that this highest felicity is the power of kings?'
(coboeth, Bo:29.65.18.1219)

¹¹⁰ Compare Allen's study (2006: 157) on the co-occurrence patterns in OE texts.

Again, in several examples it is debatable if we should analyze the pattern with DEM and POSS as elements of the same NP, or if we should give the demonstrative appositional status. For instance, in example (163), it is possible to interpret *this* as an independent appositional phrase in the sense of *this, our ecclesiastical history*. To argue for an appositional structure also seems reasonable because *þis* here is the compound demonstrative with a stronger deictic force. Also example (164) may be constructed along those lines (*this, your highest felicity*). This is the reason why those examples should probably not be counted as instances of a demonstrative and a possessive co-occurring. To account for this, Table 33 additionally lists the number of hits in brackets after all ambiguous cases have been subtracted.

More examples for the [POSS+DEM+ADJ+CN]_{NPdef} can be found; in nine out of thirteen manuscripts the pattern is listed 123 times. Again, it seems to occur slightly more often in translations from a Latin source, e.g. in *Orosius*, *Bede* or *Gregory's Dialogues* (ex.165).

(165)	& æfter his deaðe <i>and after his death</i>	Rehcaredus se cyning <i>Rehcaredus the king</i>	ne fylgde <i>not followed</i>
-------	---	--	----------------------------------

ne na onhirede <i>nor strengthened</i>	his þone treowleasan fæder, <i>his that unloyal father,</i>	ac his broþer <i>or his brother</i>
---	--	--

þone martyr
the martyr

‘and after his death, Rehcaredus the king, did not follow or strengthen his unloyal father or his brother the martyr’

(cogregdC,GDPref_and_3_[C]:31.239.15.3364)

Still a relatively high number can also be found in the *Blickling Homilies* (ex.166) which is not a translated text.¹¹¹

111 The *Blickling Homilies* manuscript is a strange outlier when it comes to co-occurrence patterns. In the literature it is treated as an original prose text because an official Latin source seems to be missing. Still, it is a religious text and it is doubtful if it really should be treated as a non-translated text.

- (166) He sealde **his þone readan gim**, þæt wæs **his þæt halige blod**,
*He sold **his that red jewel**,* *which was **his that holy blood**,*

mid þon he us gedyde dælnimende þæs heofonlican rices
with which he us made participating in the heavenly kingdom

‘He sold his red jewel, which was his holy blood, by which he made us take part
in the heavenly kingdom’

(coblick,HomU_18_[BlHom_1]:9.125.121)

The results confirm Traugott’s observation that the [POSS+DEM+ADJ+CN]_{NPdef} construction is far more frequent than its variant [DEM+POSS+ADJ+CN]_{NPdef}. Note, however, that it could be argued that several examples should be disregarded, because they can be parsed differently as a construction with an integrated but separate genitive, e.g. *that unloyal father of his*. In example (163) this interpretation is supported by the fact that in the next clause the father is contrasted with the brother who is a martyr. There, the NP [*his brother*] and the NP [*this martyr*] are separated, which may be some kind of stylistic device. Although such an alternative analysis is possible, I find it a bit farfetched and have decided not to exclude those examples from my calculations.

The [POSS+DEM+CN]_{NPdef} construction (without adjectival modification) is not frequent at all with 20 examples. It can only be found in five manuscripts. For example, in *Bede* (ex.167), in *Boethius* (ex.168) and in the *Introduction to Alfred’s Laws* (ex.169).

- (167) Forðon he wiste & gemunde: se þe cwæð, lufa ðu þinne Dryhten God,
For he knew and remembered: he who said: love you your Lord God,

se ilca cwæð, lufa ðu **þinne ðone nehstan**
*the same one said: love you **your that neighbor***

‘Because he knew and remembered: the one who says: love your God also said: love
your neighbor’

(cobede,Bede_4:29.370.6.3698)

- (168) gegaderode þa saula & þone lichoman mid **his þam anwealde**
*gathered the souls and the body with **his that power***

‘gathered the souls and the body with his power’

(coboeth,Bo:30.69.22.1291)

- (169) Gif hwa ðonne of giernesne & gewealdes ofslea **his þone nehstan**
 *If anyone then out of greed and power slays **his this neighbor***
- þurh searwa, aluc ðu hine from minum weofode
 through treachery separate you him from my altar
- to þam þæt he deaðe swelte
 so that he death suffers
- ‘If anyone slays his neighbor treacherously out of greed and power, separate him
 from my altar so that he suffers death’
 (colawafint, LawAfEl:13.37)

In most of the cases listed, the head of the NP is an adjectival noun (ex.169). Also all the examples in *Gregory’s Dialogues* have *nehstan* as their head.¹¹²

The [DEM+POSS+CN]_{NPdef} construction occurs 88 times. For example, in *Orosius*, in *Bede* (ex.170), in *Boethius* (ex.171), in the *Pastoral Care* (ex.172), relatively often in the *Blickling Homilies* and *Gregory’s Dialogues*, less frequently in the *Laws of Ine* (ex.173) and the *Lives of Saints*.

- (170) & þa gemette **þone his geþoftan** slæpende
 *And then found **these his comrades** sleeping*
- ‘and then found his comrades sleeping’
 (cobede, Bede_3:19.244.1.2492)
- (171) **ða mine þeowas** sindon wisdomas & cræftas & soðe welan
 ***These my customs** are wisdom and virtues and true wealth*
- ‘My customs are wisdom and virtues and true wealth’
 (coboeth, Bo:7.18.5.287)

112 The fact that the possessive and the demonstrative do not seem to combine with ‘regular’ common nouns makes Allen conclude that the unusual POSS+DEM construction is found only with adjectives (Allen 2006: 149), claiming that no POSS+DEM constructions without adjectival modification exist. For Allen, the examples above do not falsify such a hypothesis as – according to her – all the patterns above can be interpreted as elliptical constructions with the main head noun missing. This, her argument goes, makes those examples belong to the more complex [POSS+DEM+ADJ+CN]_{NPdef} construction type. In this book, I have decided to count all instances of the [POSS+DEM+CN]_{NPdef} construction in their own right. Even if we face elliptical constructions here, the constructions still show co-occurrence of the two determinatives and should thus be included in our calculations.

- (172) Swa eac **ða his folgeras** swa hie unwiðerweardran & gemodran beoð,
*So also **these his followers** so they friendly and unanimous are,*

swa hie swiður hlecað tosomne
so they close unite together

'So his followers are as friendly and unanimous as they closely unite'
 (cocura,CP:47.361.19.2448)

- (173) Gif ceorl ceap forstilð & bireð into his ærne & befehð
If husband cattle steals and brings to his house and finds

þærinne mon þonne bið **se his dæl** synnig butan
*in there someone then is **this his part** guilty without*

þam wife anum
the wife alone

'If a husband steals cattle and brings it into his house and someone finds it there,
 then he alone without his wife is guilty for his deeds'
 (colawine,LawIne:57.153)

Again we may subtract several ambiguous cases. For instance, example (170) seems to be an appositional construction (*þone* is singular whereas *his gepofstan* is plural, which suggests a construction like *and found this, his comrades*). In example (171) and (172) *ða* could also be the adverb *then*. Still, it cannot be denied that co-occurrence constructions existed in Old English.¹¹³

As was already mentioned, co-occurrence constructions seem to occur more often in Latin texts (see Table 34). This begs the question if those patterns should be dismissed as Latin *calques* as was suggested in section 5.5.3? Although some of the examples might be direct translations from the original Latin source, many of them are not. This shall be exemplified by a very small case study investigating the *Orosius* examples.

¹¹³ In all investigated manuscripts only one example could be found where a possessive and a demonstrative co-occur in a PNP: *þa æteaude me min giuimagister & festerfæder min se leofesta Boisel* 'then my former master and foster father my that dearest Boisel' (cobede, Bede_5:9.410.10.4120). Here, one cannot even be sure if *min* belongs to the same noun phrase as *se* or if it rather determines *festerfæder* in postposition; a potential chiasmus (a,b,b,a) used as a stylistic device: *min (a) giuimagister (b) & festerfæder (b) min (a)*. That is why I will limit myself to investigating combinations of demonstratives and possessives in CNPs.

6.2.1 The influence of Latin on the co-occurrence of determinatives in *Orosius*¹¹⁴

Below the 11 [POSS+DEM+ADJ+CN]_{NPdef} constructions and the 1 example of [DEM+POSS+CN]_{NPdef} in *Orosius* are listed with their Latin counterparts.¹¹⁵ Nowhere do we find a direct translation of the POSS+DEM combination. In terms of content, we do find corresponding Latin NPs in the following 7 examples (174–180), but those have completely different NP structures:

- (174) ne dorste Cassander self on ðæm færehte cuman,
 not might Cassander himself *on this way come,*

for **his ðæm nihstan feondum** þe him ymb wæron
because of his those nearest enemies *that him around were*

‘Cassander did not come this way himself because of his nearest enemies who were around him’
 (coorosiu, Or_3:11.81.16.1619)

Cassander **finitimorum (of the near ones)** bellis implicitus, Lysimachum cum ingenti manu pro se sociis in auxilium misit. Seleucus quoque novus Antigono hostis accessit. Hic siquidem Seleucus plurima per orientem bella gessit.

- (175) & **hiora þæt þridde gefeoht** wæs on Lucaniam on Arosinis þære dune
 and their that/the third fight *was in Lucania, on Arosini’s that hill*

‘and their third fight was in Lucania, on the Arosini’s hill’
 (coorosiu, Or_4:1.85.29.1727)

Interea reversum ex Sicilia Pyrrhum Curius consul excepit; **tertium id bellum (3rd the battle)** contra Epirotas apud Lucaniam in Arusinis campis gestum est.

¹¹⁴ Orosius, a Spanish priest, was an early 5th century Christian historian and is best known for his *Historiae adversum paganos*, where it is suggested that the world has improved since the introduction of Christianity. He wrote the text as a response to the belief that the Roman Empire declined after the sack of Rome by Alaric the Goth in 410 as a result of its adoption of Christianity. “Orosius made his book a survey of the earlier history of the world with its sufferings from war, earthquakes, pestilences and fire, but especially from war” (Wardale 1935: 244). The text covers the period from the fall down to about 417. The text was translated very freely and abbreviated into West Saxon to have a clear message for a “ninth-century Christian England troubled by the attacks of pagan Vikings” (Bately 1991: 77). For example, some parts on geography were added. Again, the translation is thought to have been commissioned by Alfred (Wardale 1935: 244–246; Sweet 1883; Bately 1980).

¹¹⁵ The Latin passages are taken from Sweet (1883).

- (176) a sendon hie þider Amilchor, **heora þone gleawestan mon,**
 then sent they thither Amilchor, **their that most skillful man,**

þæt he Alexandres wisan besceawade
 that he Alexander's manner watch

'then they sent Amilchor who was their most skillful man, there so that he would watch over Alexander's behavior'
 (coorosiu,Or_4:5.90.20.1828)

Amilcarem *quemdam*, **virum solertia praecipuum, (a man distinguished by skill)** ad perscrutandos Alexandri actus *direxerunt*: qui omni civibus suis per tabellas scriptas et post cera superlitas, enunciabat.

- (177) on **hiora þæm forman gefeohte** wæs Romana III M ofslagen
 in **their that first fight** was Romana III M slain

'in their first fight, 3000 Romans were killed'
 (coorosiu,Or_4:7.97.5.1989)

Nam in primo conflictu (in the first fight) tria millia quingenti cecidere Romani

- (178) Æt þæm feorðan cirre hie sendon Hannan **heora þone unweorðestan þegn**
 At the fourth occasion they sent Hanna **their that unworthiest thane**

'at the fourth time, they sent Hanna their unworthiest thane'
 (coorosiu,Or_4:7.97.19.2000)

et *cum* bis missis legatis nihil *profecissent*, *post* etiam decem principibus *supplicantibus*, nec impetrarent, **novissime Annonis, minimi hominis inter legatos, (lowest of man, among the legators)** oratione meruerunt.

- (179) þa sendon hie Filonem **hiora þone gelæredestan mon**
 Then sent they Filone **their that most learned man**

to þon þæt he him sceolde Gaiuses mildse geærendian
 to the one that he him should Gaius' mercy carry

'then they sent Filone, their most skilful man, to the one who should bring him news of Gaius' mercy'
 (coorosiu,Or_6:3.135.25.2855)

apud Alexandriam *profligate caede*, atque urbe propulsi, *expromendarum querelarum* causa Philonem, **virum sane in primis eruditum, (a man indeed exceedingly educated)** legatum ad *Caesarem* miserunt.

- (180) & Mammea **his sio gode modor** sende æfter Origenise
and Mammea his that good mother sent after Origenise

þæm gelæredetan mæssepreoste
the most learned mass-priest

‘and Mammea, his good mother, sent after Origenise the most educated priest’
 (coorosiu, Or_6:18.143.3.2999)

cujus mater Mammaea, *Christiana*, Origenem Presbyterum *audire curavit*.

In the next three examples (181 – 183), the corresponding Latin passage does not even include a Latin NP which corresponds to the OE ‘translation’.

- (181) On **hiora ðæm ærestan gewinne** Amilcor, Cartaina cynig,
On their that first battle/war Amilcor, Carthage’s king,

þa he to Romanum mid firde faran wolde,
when he against the Romans with an army go (to war) wanted,

þa wearð he from Spenum beþridad & ofslagen
then was he by the Spanish overcome and killed

‘on their first battle, Amilcor, king of Carthage, who wanted to go to war against the Romans with an army, was overcome and killed by the Spanish’
 (coorosiu, Or_4:7.98.3.2012)

Anno ab urbe conditia DXVII, Amilcar, dux Carthaginiensium, ab Hispanis in bello, cum bellum adversus Romanos pararet, occisus est. (no Latin counterpart)

- (182) **hiora ðæt æfterre gefeoht** wæs æt Trefia ðære ie
their that second fight was at Trefia the river

‘their second fight was at the river Trefia’
 (coorosiu, Or_4:8.100.3.2061)

Pugnatumdeinde ad flumen Trebiam, iterumque Romani pari clade suerati sunt. (no Latin counterpart)

- (183) & befeat Siracuses **heora þa welegestan burg**, þeh he hie
and obtained Syracuse their that wealthiest town although he it

æt þæm ærran færelte begietan ne mehte,
at the preceding expedition could not obtain,

‘and obtained Syracuse, their wealthiest town the one that he could not obtain at the preceding expedition’
(coorosiu,Or_4:10.103.8.2133)

secunda oppugnatione vix cepit, quam, cum jam pridem obsedisset, Archimedis Syracusani civis, admirabili ingenio praediti, (no Latin counterpart)

Finally, examples (184) and (185) show that sometimes it is even the case that no related Latin passage can be found in the Latin original. The following examples were added to the OE version as completely new text.

- (184) **Se heora cyning** ongang þa singan & giddian
That their king began then to sing and to recite

‘then their king began to sing and to recite’
(coorosiu,Or_1:14.35.14.683)

- (185) Eala, Romane hwa mæg eow nu truwian þa ge swylc lean dydon
Alas, Romans, how may you now trust that you such reward gave (to)

eowrum þam getrywestan witan?
your those most loyal councilors?

‘Alas, Romans, how do you now trust, when you gave so much reward to your most loyal councilors’
(coorosiu,Or_5:4.119.3.2492)

This shows us that in the particular case of *Orosius*, the existing DEM+POSS constructions are not direct translations. Rather, the creativity of the scribe suggests that the pattern was indeed part of an OE register.

6.2.2 Testing the variables ‘historical period’ and ‘text type’

Still, looking at the results in Table 33, one gets the impression that co-occurrence is favored in texts which have a Latin counterpart. This is why I ran a GLMM again. In Table 39 all 4 constructional co-occurrence types are added. As the results in Table 40 and Fig. 16 reveal, text type is not an influential factor. Note, however, that the analysis includes the *Blickling Homilies* manuscript which is a strange outlier in the sense that it is the only original text with a lot of co-occurrence; a fact which is also confirmed by the analysis in Figure 17 below.

Tab. 39: Co-occurrence constructions in OE manuscripts

construction	PB	LOS	CH	PA	BH	LAW	LAWI	INE	GD	BED	BOS	CUR	OSI
CNPs	6093	14715	17150	2140	6298	637	256	526	13108	12577	5960	8568	6709
co-occurrence (+ ambiguous)	3	3	4	0	69	0	2	2	77	42	20	7	12
rest	6090	14712	17146	2140	6229	637	254	524	13031	12535	5940	8561	6697

Tab. 40: GLMM of construction type (co-occurrence vs. other CN) depending on type and period with text as random intercept (SD=0.8; 13 groups; N=94737). Significance code: ‘*’ p<0.05; ‘**’ p<0.01; ‘***’ p<0.001.

	Coefficient β	SE	Effect on OR	p	Significance
Intercept	-5.91	0.46	0.0027	<0.001	***
type (translation)	-0.07	0.58	0.93	0.90	
period (late)	-2.37	0.73	0.09	0.0012	**

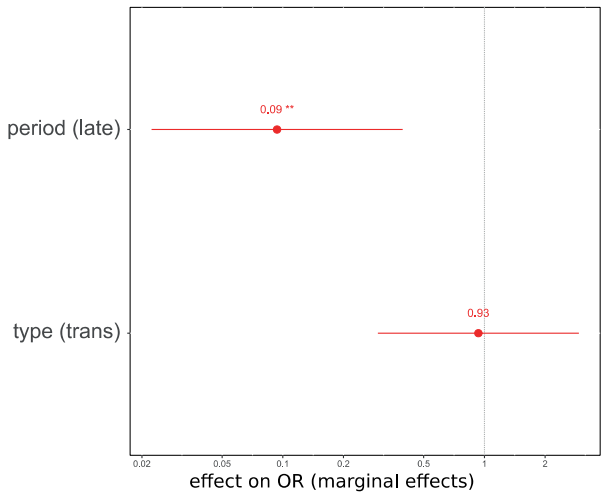


Fig. 16: Fixed effects of period and type on the odds of being a co-occurrence construction vs. other CN (odds ratio, OR)

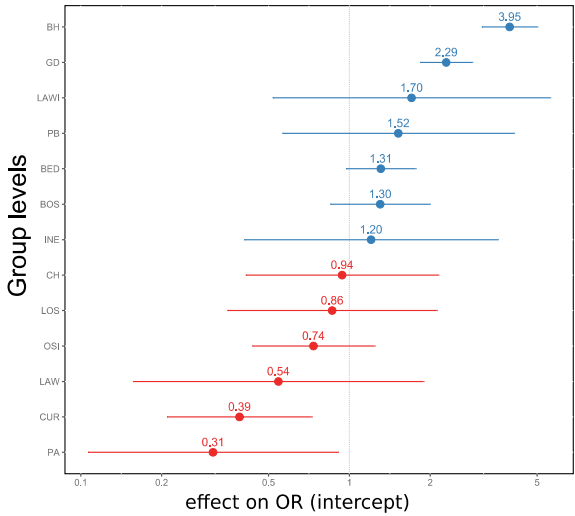


Fig. 17: Effects of text on the intercept of the model (random intercept; effects shown on the OR scale)

However, even if we exclude the *Blickling Homilies* manuscript from the investigation, the model does not confirm that co-occurrence constructions occurs significantly more often in translations.

Tab. 41: GLMM of construction type (co-occurrence vs. other CN) depending on type and period with text as random intercept (SD=0.6032; 12 groups; N=88439). Significance code: ‘*’ p<0.05; ‘**’ p<0.01; ‘***’ p<0.001.

	Coefficient β	SE	Effect on OR	p	Significance
Intercept	-6.69	0.53	0.001245	<0.001	***
type (translation)	0.73	0.60	2.085006	0.22	
period (late)	-1.58	0.68	0.206470	0.02	*

This result is surprising as the results in Table 33 show that in the individual texts co-occurrence constructions are definitely found more often in translations than in originals (also in terms of relative frequencies). The fact that this variable does not seem to have an influence could be explained by the fact that the data points for co-occurrence are simply too few for the statistical tests to work properly (similar to $\bar{a}n+CN$). With regards to the variable ‘period’, it can be seen that time exerts

a significant effect on the likelihood of there being a construction where the demonstrative and the possessive co-occurs. In late texts, the odds of co-occurrence are decreased by 0.09 ($\beta=-2.37$; $p=0.0012$). In other words, the co-occurrence of the demonstrative with a possessive decreases in time and this decrease seems to happen between early and late Old English.

This directly leads to the question why English developed into a language which, in general, does not allow the co-occurrence of a demonstrative and a possessive anymore. Here, I believe that a Construction Grammar perspective can help to fully understand this change in English NP structure, which is why I will sketch a possible constructional scenario of the observable process in chapter 7. There it will be shown how and why the 4 co-occurrence constructions dissolve as nodes in the network. For now it can be concluded that the NO CO-OCCURRENCE criterion is not met in early Old English, although DEM+POSS constructions are not used as frequently as some handbook statements seem to suggest.

Before we move on to the RELATIVE POSITION criterion, the status of *ān* has to be discussed as well. In most of the texts *ān* sometimes co-occurs with a possessive or a demonstrative (as was already mentioned in sections 3.2.1 and 5.5.3). One finds NPs (e.g. ex.186 and ex.187) where *ān* follows a demonstrative or a possessive pronoun.

- (186) & **þæt an ðing** bið God
and that one thing is God

‘and that one thing is God’
 (coboeth, Bo:33.76.7.1419)

- (187) se ðe belicð ealne middaneard on **his anre handa**
who encompasses all middleearth in his one hand

‘who encompasses the whole world in his one hand’
 (cocathom1, ÆCHom_I, 13:284.106.2449)

All in all, 64 examples were identified. In those examples *ān* always functions as a numeral. Still, it can be concluded that also in the case of *ān*, the NO CO-OCCURRENCE criterion is not met. Next to *ān*’s low frequency, this fact also speaks against its status as an article.

6.3 Criterion 4: Relative Position

The next criterion is RELATIVE POSITION. In the *Peterborough Chronicle* we could only find one instance where an adjective precedes the demonstrative but it was possible to interpret the adjective as the head of a separate NP with a genitive construction following. Table 34 reveals that only a handful of examples can be found in the other manuscripts.

In the *Parker Chronicle* we also find only one example:

- (188) & þreo stodon æt **ufeweardum þæm muðan** on drygum
 and three stood at **upward the (river-)mouth** on dry land

‘and three stood upwards the river mouth on dry land’
 (cochronA-2b,ChronA_[Plummer]:897.30.1136)

In *Bede*, 8 instances of the construction [ADJ+DEM+CN]_{NPdef} could be found, but interestingly all cases include adjectives which mean ‘middle’ (ex.189–190).

- (189) we ða wæron on **midre ðære sæ**
 we then were in **middle the sea**

‘then we were in the middle of the sea’
 (cobede,Bede_5:1.384.18.3832)

- (190) & he mec forlet in **middum þæm þeostrum** ond ðære ongrislican gesihðe
 and he me left in **middle the darkness** and that fearful vision

‘and he left me in the middle of the darkness and that fearful vision’
 (cobede,Bede_5:13.426.16.4287)

Also the two examples in *Boethius* and the two examples in *Gregory’s Dialogues* include *midre* (ex.191). This leads to the question if the pattern is really productive or if it is only applied in the special case of *midre*.

- (191) Hu meahtes þu bion on **midre þisse hwearfunga**
 How might thou be in **middle this change/instability**

þæt ðu eac mid ne hwearfode?
 that you also with did not change?

‘how could you exist in the middle of this change and not be changed by it?’
 (coboeth,Bo:7.18.26.299)

In *Pastoral Care* we find 4 hits, some of which include *middle* but also the adjective *hindewerdum* ('from behind') (ex.192).

- (192) Forðæm æfner ða ða he ongean ðone cirde ðe hine draf,
Therefore when he turned against the one that him drove,
- ne ofstong he hiene no mid ðy speres orde,
not did stab he him not with the spear's point,

ac mid **hindewerdum** ðam sceafte
but with hind part of the shaft

'Therefore, when he turned against the one that drove him, he did not stab him with the spear's point but with the hind part of the shaft'
 (cocura,CP:40.297.9.1957)

In *Orosius* we find two examples, again both of them used in special constructions with *-weardum*.

- (193) þonne is an port on **suðewearðum** þæm lande
there is a port on southwards the land
- þone man hæ Sciringesheal
that one calls Sciringesheal

'there is a port south of the land that is called Sciringesheal.'
 (coorosiu,Or_1:1.16.2.281)

- (194) Swa egefull wæs Alexander þa þa he wæs on Indeum,
So terrible was Alexander that when he was in India,
- on **eastewearðum** þissum middangearde þætte þa from him ondredan
on eastwards this middleearth that then of him were afraid
- þe wæron on westewearðum.
those that were westwards

'Alexander was so cruel that when he was in India, in the East of this world, even those who were in the West were afraid of him'
 (coorosiu,Or_3:9.74.2.1454)

In the *Blickling Homilies*, one example is with *middan*; the other with *weardum*. As all of the examples where an adjective precedes the demonstrative are very special, they do not indicate that the demonstrative is still floating around freely

in the prehead of Old English. An adjective proceeding the demonstrative is by no means a productive pattern.

Also note that no example could be found where an adjective preceded the form *ān*. In other words, I suggest that already in early Old English the demonstrative *se* and the numeral *ān* (and presumably all other determinatives) mostly occur in a rather fixed position in front of the adjective (modification zone). This suggests that the RELATIVE POSITION criterion is met in Old English and that a determination slot to the left of the quantificational and modificational elements may have already been conceptualized by the speakers.

6.4 Criterion 5: Obligatoriness

In order to investigate the OBLIGATORINESS criterion on a larger scale, I decided to analyze four of the selected texts in more detail: *Bede* (80,767w.), *Boethius* (48,443w.), *Pastoral Care* (68556 w.) and *Orosius* (51020 w.). Note that all of them are categorized as translations from Latin, but as has been pointed out in previous sections, often the OE version strongly deviates from its Latin counterpart (especially *Orosius* but also *Boethius*), which is why those texts are representative of OE prose and can be used for analysis without worrying too much about transfer phenomena from Latin. The other texts were only excluded from the analysis because it would go beyond the scope of the investigation to analyze all the manuscripts. Of course, the OBLIGATORINESS criterion should ultimately also be investigated in all the other texts.

6.4.1 Bare common nouns in OE prose texts

My analysis in chapter 5 revealed that in the *Peterborough Chronicle* definiteness seems to be marked more or less consistently by a determinative. After careful analysis, only 32 cases (PB) and 8 cases (PA) could be identified where a bare noun stands alone and unmarked in a definite context.

To answer the question how obligatory the overt marking of definiteness is in the other early OE manuscripts, the same procedure was used as in the *Peterborough* and *Parker Chronicle*. All one-word CNPs were searched for. This produced 1325 hits for *Bede*, 601 hits for *Boethius*, 744 hits for *Pastoral Care* and 839 hits for *Orosius*. Again note that a search query for one-word NPs does not produce an output which includes all the potential cases where overt definiteness

marking may be missing.¹¹⁶ Again, the examples were analyzed individually, and based on the context it was decided if the NP was definite, indefinite or non-referential. In order to reduce the number of examples, I decided to have a closer look at the first 250 examples listed in each output file.

Following the procedure that was set up for the *Peterborough* and the *Parker Chronicle*, all indefinite and non-referential NPs (e.g. ex.195–197) were excluded.

- (195) Gif ge nu gesawan hwelce mus þæt **wære hlaforð** ofer oðre mys,
 *If you now saw some mouse that **was lord** over other mice,*

 & sette him domas & nedde hie æfter gafole,
 and set them judgments and subjected them to tribute,

 hu wunderlic wolde eow ðæt þincan
 how wonderful would you think it

‘If you saw a mouse that was lord over other mice and judged them and subject them to pay tribute, how great would you think it was’
 (coboeth,Bo:16.35.30.648)

- (196) **on sumera** hit bið wearm & **on wintra** ceald
 ***in summer** it is warm and **in winter** cold*

 ‘in summer it is warm and in winter it was cold’
 (coboeth,Bo:21.49.19.894)

- (197) þæt he wære on Truso on syfan dagum & nihtum, þæt þæt scip
 that he was in Truso in seven days and nights, that the ship

 wæs ealne weg yrnende **under segle**
 *was all [the] way **under sail***

 ‘in order to arrive in Truso in seven days and nights, the ship was under sail all the way’
 (coorosiu,Or_1:1.16.21.296)

After excluding indefinite and non-referential cases, I ended up with the following number of definite NPs in which the noun occurs bare although it refers to a

116 The output of the query only lists one-word NPs where the noun stands completely alone (unmarked) and does not get modified by any additional word (e.g. an adjective) or phrase (e.g. a relative clause).

specific, identifiable entity: 40 examples in *Bede*, 18 in *Boethius*, 19 in the *Pastoral Care* and 26 in *Orosius*.

Tab. 42: Relation between non-referential, indefinite and definite contexts with bare NPs in o.2 texts

250 bare NPs	Bede	Boethius	Pastoral C.	Orosius
exclude	7	12	7	8
indefinite	138	169	186	139
non-referential	65	51	38	78
definite	40	18	19	25

As a next step, which was also taken in the chronicles, special syntactic constructions were excluded. After doing so, in all four texts, again only a few cases remained where no determinative is used although reference is made to a specific, identifiable entity (see Table 43).

If we now extrapolate how many bare noun cases in definite contexts we find in the whole sample of one-word CNPs (not only in the first 250 NPs), we end up with 165 examples in *Bede*, 26 in *Boethius*, 36 in the *Pastoral Care* and 57 in *Orosius*. In the *Peterborough Chronicle*, in 32 cases a determinative was missing. In the *Parker Chronicle*, 8 examples out of 251 lack a determinative.

Tab. 43: Bare definite common noun phrases in early OE prose

Manuscripts	definite contexts in the first 250 examples	special constr.	bare CNs in 250	bare CNs in complete sample
Bede	40	9	31/250	~165/1325 (~1.31%)
Boethius	18	7	11/250	~26/601 (~0.44%)
Pastoral C.	19	7	12/250	~36/744 (~0.42%)
Orosius	25	8	17/250	~57/839 (~0.85%)

These are the ‘famous’ cases of bare definite nouns which are always discussed in the handbooks and which are considered to be important evidence for the non-obligatoriness of definiteness marking in Old English. Once again it has to be pointed out that the number of examples is extremely low (0.44% – 1.31% of all CNPs).

If we analyze the examples in detail, it can again be seen that the nouns which are not overtly marked are special ones. The examples below show that the majority of cases without a determinative contains body parts and unique words like *the devil*, *heaven* or *the sea* (e.g. ex.198–203).

- (198) He is swiðe bitter **on muðe**
 He is very bitter **in mouth**

‘He has a bitter taste in the mouth’
 (coboeth,Bo:22.51.2.927)

- (199) þæt he wearp þæt sweord onweg þæt he **on handa** hæfde
 so that he threw the sword away that he **in hand** had

& him **to fotum** feoll.
 and him **to feet** fell

‘so that he threw the sword away which he had in his hand and which fell to his feet’
 (cobede,Bede_1:7.38.18.318)

- (200) To hire gerestscipe þonne hire wer ne sceal gongan
 To her bed then her husband not shall go
- ær þon þæt acennde bearn **from meolcum** awened sy
 before the child is weaned **off breasts**

‘then her husband is not allowed to go to her bed, before the new born is weaned off the breast’
 (cobede,Bede_1:16.76.27.711)

- (201) Gif hine þonne yfel mon hæfð þonne bið he yfel þurh þæs monnes yfel
 If then it an evil man has it is evil through the man’s evil
- þe him yfel mid deð, & **þurh dioful**
 who it evil with does and **through devil**

‘If a bad man has it, it is evil through the man’s evil who does evil with it and through the devil’
 (coboeth,Bo:16.38.26.702)

- (202) On ðære wæron ða stænenan bredu ðe sio æ wæs on awriten
 In it were kept the stone tablets on which the law was written

mid tien bebodum [...],	& eac se sweta mete	ðe heton monna
<i>in ten commandments[...],</i>	<i>and also the sweet food</i>	<i>they call manna</i>

se him cuom	of hefonum
<i>which to them came</i>	<i>from heaven</i>

'In it the stone tablets were kept on which the law was written in ten commandments, and also the sweet food they call manna which came to them from heaven'
(cocura,CP:17.125.17.847)

(203)	& þone mæstan dæl his	hæfð sæ oferseten
	<i>and the greatest part of it</i>	<i>has sea covered</i>

'and the biggest part of it is covered by the sea'
(coboeth,Bo:18.41.28.758)

6.4.2 Unique common nouns in OE prose texts

If we again examine the group of 'unique' nouns (e.g. *heaven*, *sun*, etc.), it can be confirmed that those words do not consistently resist definiteness marking. Most of these words repeatedly occur in combination with a determinative in the texts. Table 44 shows how often some unique nouns occur with or without a determinative in the selected OE texts. The nouns *sun*, *moon*, *heaven*, *knee*, *head* and *flood* are marked by a determinative more often than they occur bare. Only *hell* and *middle-earth* mostly occur bare. Also, it can be seen that the situation is similar in the later manuscripts. There the use of *se* with unique nouns does not become more consistent.

It is true that the handbooks are correct when they claim that if a noun occurs bare in a definite context, this is mostly the case with unique nouns (body parts, directions, *devil*, *middle-earth*, ...) which could be interpreted as inherently definite (similar to proper nouns) but as these words are often used with determinatives as well, the group of unique words does not constitute a special subgroup of nouns which completely resists definiteness marking.

In general, the lack of a determinative in a few cases does not suggest a linguistic state where marking of definiteness is entirely optional. We can thus conclude that the cases of bare nouns seem to be special cases being the last ones to sporadically resist the marking process. After all we have to keep in mind that for example in *Bede* 3246 cases were found where the demonstrative precedes the CN, 1359 cases where a possessive marks the NP overtly and 1483 cases where a genitive construction functions as a determinative. This means that in 6088 cases

definiteness is overtly marked by a determinative in *Bede*. Given the fact that only in an extremely small percentage of definite CNPs the noun remains bare, it can only be concluded that definiteness marking is already quite consistent in early Old English. At the same time, one can argue that the OBLIGATORINESS criterion is met. *Se* seems to function as a default marker of definiteness.

Tab. 44: Distribution of *se* with unique common nouns in OE texts

	sun		moon		heaven		hell		knee		head		(middle) earth		flood/ tide	
+ <i>se</i> / -bare	+	-	+	-	+	-	+	-	+	-	+	-	+	-	+	-
Parker C.	2	4	1	1	-	-	-	-	-	-	1	-	-	1	1	1
Bede	2	1	1	-	-	4	-	1	3	-	14	1	4	22	1	-
Boethius	35	1	10	-	8	-	1	1	-	-	-	-	9	2	-	-
Cura P.	4	-	1	-	-	-	-	7	-	-	10	-	9	-	-	1
Orosius	6	-	2	-	2	-	-	2	3	-	7	1	8	8	3	1
Laws A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LawsAl	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-
Law I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
02	49	5	15	1	10	4	1	11	6	0	32	2	30	35	5	3
ACH1	18	-	13	-	4	5	-	9	1	1	27	1	23	53	1	1
ACH2	19	5	-	-	2	-	1	10	8	-	24	-	18	21	1	1
ALoS	20	-	-	-	1	-	1	15	5	3	29	1	18	60	2	1
PB	2	3	10	-	5	1	-	1	-	2	8	1	-	1	2	-
03	59	8	23	0	12	6	2	35	14	6	88	3	59	135	6	3

What about the status of *ān*? It has repeatedly been pointed out that *ān* is far too rare to be considered an obligatory default marker of indefiniteness. The numbers in Table 33 confirm this (section 6.1). Ultimately, it can be confirmed that Old English was a stage in which indefiniteness did not have to be marked overtly.

6.5 Concluding remarks: category and slot emergence in o.2

The aim of this chapter was to extend the investigation to more manuscripts and to check whether the findings mirror what we could find in the *Anglo-Saxon Chronicle*. Additionally, my goal was to investigate whether the forms *se* and *ān*

are used differently in early Old English compared to late Old English. In the end, I analyzed a large amount of constructions quantitatively and qualitatively. Next to an investigation of basic determination patterns, the specific focus was an investigation of the following criteria: NO CO-OCCURRENCE, RELATIVE POSITION and OBLIGATORINESS.

It was observed that the demonstrative is the most frequent element to mark definite reference in Old English. The [POSS+CN]_{NPdef} construction occurs between 6% and 15% in the texts. The [GenP+CN]_{NPdef} construction occurs in a range from 5% to 12% in all manuscripts. In other words, the concept of possession is less often expressed than the concept of deixis in the prehead. It was also shown that the [DEM+CN]_{NPdef} construction increases significantly in time.

My line of argumentation is based on the idea that the existence of the article category is linked to the emergence of an abstract construction with a positional, lexically underspecified determination slot. I argue that we should not separate the notion of articlehood from the existence of a determination slot. In order to speak of an article, a slot has to emerge first in the cognitive makeup of the speaker (see chapter 7). This slot becomes functional in the sense that speakers have linguistic knowledge about how it has to be treated. Only after the positional fixation of such a slot – which corresponds to the schematization of an abstract construction in the constructicon – is it likely that any element is employed as its default filler (see chapter 7). The three tested primary criteria which have a stronger clue validity than the others are strongly related to such a functional slot.

Regarding the OBLIGATORINESS criterion, only a handful of cases exists where the determinative seems to be missing although reference is made to a specific identifiable entity. Only these few represent the ‘famous’ cases of bare definite nouns, which are always discussed in the handbooks and which are considered as important evidence for the non-obligatoriness of definiteness marking in Old English. It has been shown that most of the cases are special unique nouns. They seem to be special cases being the last ones to sporadically resist the marking process. Note that for each of those cases counterexamples can be found where the same noun is marked by *se* or another determinative. Based on these results, we have to conclude that definiteness marking is already quite consistent in early Old English. In contrast, indefiniteness is not marked obligatorily. This also means that the OBLIGATORINESS criterion is not met by *ān* but it can be argued that it is met by *se*, especially as *se* increases its frequency in time.

With regards to the RELATIVE POSITION criterion, no example could be found where *ān* follows a modifier. It was also shown that the examples where the demonstrative is preceded by an adjective are not very convincing.

[ADJ+DEM+CN]_{NPdef} is by no means a productive pattern of Old English. In other words, the forms *se* and *ān* occur in a fixed position in front of the adjective. This suggests that the RELATIVE POSITION criterion is met in early Old English and that a determination slot in the left periphery of the NP has already been conceptualized by the speakers.

Regarding NO CO-OCCURRENCE, it could be shown that the criterion is not met in Old English in a strict sense. The form *se* and the form *ān* both co-occur with other determinatives. If we take frequency into consideration, especially the [POSS+DEM+ADJ+CN]_{NPdef} and the [DEM+POSS+CN]_{NPdef} construction deserve to be considered as individual nodes in the OE network of NP constructions. Many examples cannot simply be explained away and therefore have to be taken seriously.

Still, it must be highlighted that the co-occurrence of demonstrative and possessive is not a productive pattern at all. From that point of view, the importance that has been given to these constructions in the literature and the handbooks is slightly overrated. Also, it could be shown that their frequency significantly decreases in time and that they tend to be used more often in translations (although the effect is not significant). This confirms the research conducted by Allen (2006) and Wood (2007), which suggest that although the DEM+POSS construction is not a direct loan translation in the strict sense, the pattern nevertheless is a stylistically marked construction with a specific discursive function “appropriate for the translation of Latin or [generally] for a high style” (Allen 2006: 153).

As a consequence, I suggest that the speakers of early Old English already used a grammatical system in which an abstract construction with a determination slot has been added to the network. This construction allows for the determination zone to be filled by one determinative only. The fact that POSS+DEM constructions still exist shows us that the spread of any constructional network change which does not allow co-occurrence any longer is a gradual process in the population of OE speakers/writers.

Based on the frequency distribution of the tested nominal determination patterns and the results for the three criteria, I argue that during the early OE period, the speakers (based on their OE construct input) decided to mark definiteness obligatorily in a positional syntactic slot. This constitutes the emergence of an abstract schematic construction. In contrast, indefiniteness marking is still optional in Old English. This line of argumentation will be presented in much more detail in the next chapter where I present a constructional scenario.

I close this empirical chapter with one more remark. The idea to set up criteria for articlehood based on Modern English and to apply them on an older language stage has failed to a certain extent. Out of 7 criteria, only 3 turned out to be useful.

This, however, again underlines what scholars have said about the fuzziness of categories and the inability to capture linguistic structure by Aristotelian categorization alone. Language is constantly changing, and linguistic behavior at one stage may not be analyzable with tools that have been set up for analyzing linguistic behavior at a later stage. If one relies on criteria to decide how to classify a particular element these criteria have to be chosen wisely. At the same time, frequency is a factor which must be taken into consideration. If we find a couple of rare 'exotic' constructions in a large corpus sample, the question always is how to treat those infrequent patterns. They might be reminiscences of an older language stage with a different constructional network, but that does not mean their existence should stop us from the postulation of a particular construction or the classification of a particular linguistic form (e.g. *se* or *ān*).

7 Article emergence: a constructional scenario

Analogy making lies at the heart of intelligence. (Hofstadter 1995: 63)

As [is] the case with non-linguistic categorization, selective encoding and imperfect memory ensure that our exemplars are somewhat abstract. We do not store an unlimited number of complete utterance representations; rather what we retain are instances at some level of abstraction. That is, we do not passively retain a huge mental corpus, consisting of all the strings we have ever heard, as a computer might do. Instead we constantly parcel out meaning, form abstractions, and generalize over the instances we hear. (Goldberg 2006: 62)

This chapter will present a constructionalist perspective on the articles' emergence. Taking up thoughts presented in the previous chapters, I will provide an answer to the question of HOW and WHEN the article category developed in English. Several constructional OE NP schemas on various levels of abstractness will be postulated and I will make a first attempt to partially sketch how those constructional nodes are vertically and horizontally linked in the network (the OE constructicon). Furthermore, I propose a particular diachronic sequence in which the postulated constructions emerged. I will discuss how the constructional network changed via the emergence of new constructions or by the establishment of new links between existing constructions. At the same time, I will tackle the WHY question by focusing on the functional and cognitive mechanisms which may have caused the article category to develop. It will be shown that the development of the articles is a case of 'grammatical constructionalization', triggered – among other things – by complex frequency effects on various levels and the speakers' cognitive ability to abstract, categorize and analogically extend ('analogical thinking'). Moreover, I will hypothesize that the observable development increases systemic simplicity and processing efficiency. The overall goal of this chapter is to show that it is a very fruitful endeavor to look at grammaticalization phenomena using a Diachronic Construction Grammar model.

At first sight, it seems quite obvious why the English articles' sources are the OE demonstrative and the OE numeral. What makes such a process likely is the broad functional overlap between these elements and the articles. As the demonstrative was already very close to the definite article in terms of semantic content, all it had to lose was its deictic force. The same holds for the numeral; it simply lost its numeric semantics. Moreover, the demonstrative and the numeral are attached to the head in the left periphery so that formally the syntactic position of the elements is similar. Thus, one could interpret the rise of the articles as a 'straightforward' grammaticalization effect driven by the semantic and positional

relatedness of the elements. This line of reasoning has been repeatedly put forward by scholars like Greenberg (1978), Himmelmann (1997), Schroeder (2006) or Heine and Kuteva (2006) who all postulate specific grammaticalization clines with several identifiable stages in the process. The clines, which were already presented in section 3.2.2, are repeated here for the reader's convenience:

Indefinite cline: (i) numeral > (ii) presentative marker > (iii) specific indefinite marker > (iv) non-specific indefinite marker > (v) generalized article (Heine and Kuteva 2006).

Definite cline: (i) weakly demonstrative definite determiner > (ii) presentative marker' / near article > (iii) specific (in)definite article > (iv) generalized article/extended article > (v) empty noun marker (Himmelmann 1997: 23).

What I will show, however, is that although the distributional and semantic similarities between the mentioned elements definitely played a role in the process, it would oversimplify the explanation tremendously if we stopped here. After all, many languages have demonstratives and numerals but no articles. According to Heine and Kuteva (2006: 98–99), out of 100 investigated languages, only 7% have a (developing) definite article which derived from a demonstrative and only 6% have an indefinite article which derived from a numeral. It can be assumed that all languages have similar discourse-pragmatic needs to 'ground' and 'relate' referential expressions in discourse. Thus, additional language-specific, systemic factors must have played a role for the demonstrative and the numeral to grammaticalize and to take up this new function in English (see sections 7.1–7.5 for a discussion of those factors).

The development of the articles does not only involve the processes of attrition (semantic bleaching, phonological reduction), fixation and obligatorification of a particular overt element (e.g. OE *ān* > ModE *a/an*), but it also seems to be linked to the overall changing and condensing NP structure of OE syntax; especially the emergence of an abstract, grammatical schema with a lexically underspecified, locally fixed determination slot. In the section on nominal determination, where the criteria for articlehood were set up, I suggested that we should not speak of the existence of a definite article in English, unless such an abstract construction with such a slot has developed. Similarly, it was argued that we should only employ the article category in our description of English syntax, when the empirical data confirms that (in)definiteness marking is obligatory in the majority of cases (see section 2.4). In previous chapters, I defined an English article as a linguistic element which is a syntactically fixed element used to exclusively and obligatorily mark definiteness or indefiniteness. This chapter will show how the development of the two English articles can be described in constructional terms.

I will propose that the articles' development is a process which unfolds in 5 steps. In a 1st step (section 7.1), an abstract definite NP schema with a functional determination slot is established at one point in early Old English. The constructionalization of this definite schema is the result of a systemic reinterpretation (neoanalysis) in which OE speakers – based on the majority patterns in their linguistic input – conclude that definite contexts have to be marked obligatorily by an overt element in a specific prehead position. The existence of this abstract node in a 2nd step leads to the recruitment of *se* as a default filler which triggers the grammaticalization (phonetic and semantic reduction, increase in frequency,...) of the demonstrative. This grammaticalization – from a constructional point of view – is a case of 'grammatical constructionalization' where a new, more procedural form-meaning pairing develops which is added to the network ('the definite article') (see section 7.2). In a 3rd step, a new indefinite abstract NP construction is added to the constructicon, presumably at the beginning of Middle English (see section 7.3). For various reasons, which will be outlined below, the speakers also start to mark indefiniteness overtly. The development of this indefinite NP construction – as a 4th step – not only leads to a complete reorganization of marking referential NPs in English but also to the grammaticalization of the numeral *ān* and as a 5th step to the grammaticalization of *some* and *any*, which not only function as quantifiers but also as indefinite articles in Present Day English (see section 7.4).

Obviously this postulated 5-step development is a simplification as many smaller steps/changes can also be observed, e.g. the emergence of idiomatic or fixed phrases that include or exclude the articles unexpectedly or the gradual semantic expansion from specific to non-specific uses. All these changes should be conceptualized as more local changes on the lower-levels of the constructicon and at some point will also have to be described in constructional terms. However, as a first step, it seems more important to focus on the changes which affect the constructicon on the higher, more abstract levels because changes on these levels mirror a far-reaching reorganization of the system.

Before we can elaborate on the 5 steps in detail, it is necessary to revisit some constructional basics presented in the first part of this book: as outlined in chapter 1 and 4, all Construction Grammar models agree that language (grammar) consists of constructions. A construction is a symbolic sign in the sense that it is a form-meaning pairing. The 'formal' side of a construction (F) is associated with morphosyntactic (Syn) or phonological information (Phon), whereas the 'meaning' side (M) is understood to include all semantic (Sem), pragmatic (Prag) and

discourse-functional properties (Dis) (section 4.1.1).¹¹⁷ Constructions can be atomic or complex and substantive or schematic. Such a classification enables Construction Grammar to background the strict division between lexicon and syntax and to highlight the fact that linguistic elements can be positioned on a gradient continuum from lexical to grammatical.

Through this constructional lens, the following analyses suggest themselves. For example, the OE linguistic word *bearn* is a construction positioned close to the lexical pole of the cline in the sense that it connects (\leftrightarrow) the phonetic sound sequence /b + e + a + r + n/ with the semantic meaning {young offspring}. The [*bearn*] construction is an example of an atomic and substantive (fully specified) construction because it consists of only one word and its form is fully specified. Similarly, [*se*] and [*ān*] are also atomic and substantive constructions. However, in contrast to [*bearn*], [*se*] and [*ān*] are positioned closer to the grammatical end of the cline, because their ‘meaning’ is more procedural and grammatical than lexical (in the traditional sense). In the case of [*se*], the phonetic combination of the unvoiced alveolar fricative /s/ followed by the close-mid front vowel /e/ is the sound sequence which in early Old English codes the meaning of {spatial (situational) deixis}. This, however, is only a preliminary and partial suggestion for the form-meaning pairing of early OE [*se*] because a speaker who ‘knows’ how to use *se* correctly also knows about its distributional information; namely that it is the demonstrative only used in masculine singular nominative definite contexts. As was shown in chapter 3, Old English has a complex case, gender and number system which distinguishes, for example, between masculine, feminine and neuter. This is why it can be argued that a more complete account of early OE [*se*] as a form-meaning pairing is:

M:	Sem: {spatial deixis}
\updownarrow	
F:	Phon: /se/ Syn: [se]; masculine singular nominative

In contrast, [*seo*] has the following distributional information: prehead determinative; feminine singular nominative. From now onwards, I will distinguish between [*se*] and [*se_{inn}*]. When using [*se*] I refer to the nominative singular case. In that sense one could also annotate the form in the following way [*se_{masc,sg,nom}*].

¹¹⁷ In literate communities any knowledge about orthographic spelling conventions is also stored on the ‘formal’ side.

When using [*se_{infl}*] this annotation represents the demonstrative *se* paradigm (i.e. all inflected case forms of *se*).

The meaning of OE [*ān*] can roughly be equated with {numeric quantifier ‘one’}. In the case of [*ān*] it is more difficult to establish the full form-meaning pairing because [*ān*] is a versatile form; it is not only used as a numeric quantifier for masculine nominative contexts but also for feminine and accusative contexts. Therefore, one option is to postulate the following form-meaning paring:

M:	Sem: {numeric quantifier ‘one’}
↕	
F:	Phon: /a:n/ Syn: [<i>ān</i>];singular masculine, feminine and neuter nominative; singular masculine and feminine accusative

Here, the ultimate question is whether we assume that constructions are poly-functional or whether we assume that we have stored five different [*ān*] constructions which are equal in formal shape but differ with regards to their distributional information (e.g. [*ān_{masc,sg,nom}*], [*ān_{fem,sg,nom}*] [*ān_{neut,sg,nom}*] [*ān_{masc,sg,acc}*] and [*ān_{fem,sg,acc}*] see section 4.1.1). I suggest that [*ān*] is poly-functional. In any case the speaker has acquired knowledge that it can be used in various contexts e.g. in nominative but also in accusative ones. With regards to the question whether it is nominative or accusative or feminine or masculine, its final status is decided in the larger construction which it is embedded into:

M:	Sem: {one ¹ bounded entity ² functioning as agent ³ }	M:	Sem: {one ¹ bounded entity ² functioning as patient ³ }
↕		↕	
F:	Syn: [[<i>ān</i> ¹]+[CN _{count} ² +INFL _{nom,masc} ³]]	F:	Syn: [[<i>ān</i> ¹]+[CN _{count} ² +INFL _{acc,fem} ³]]

For example, when used in the left construction, (where it combines with a nominative masculine noun) [*ān*] ‘is’ nominative masculine. In the construction on the right it ‘is’ accusative feminine.

As the last two examples show, we do not only find atomic constructions but also complex constructions consisting of more than one word; for example noun phrases with a determiner and a head. For instance, OE *heora cyning* and OE *his sunu* are constructs which are licensed by the OE abstract, fully schematic [[POSS_{infl}¹]+[CN_{infl}²]]_{NPdef} construction. This construction has the meaning {possessed entity}.

M:	Sem: {possessed ¹ entity ² }
↕	
F:	Syn: [[POSS _{infl} ¹]+[CN _{infl} ²]] _{NPdef}

Note that the given annotation of the NP–schemas does not follow any current formalization conventions used in a specific Construction Grammar framework. The formalization is a mix of conventions used by various researchers (Croft and Cruse 2004; Booij 2010; Traugott and Trousdale 2013; Petré 2014). In my notation, italicized words like for example *his sunu* without square brackets represent constructs, but any element inside square brackets is a construction (e.g. [*his*]). Inside the brackets, any completely italicized form represents a fully specified construction. It is important to add that any italicized form – albeit being classified as ‘specific’ – is also a kind of abstraction/generalization; the chosen specified form must be seen as a prototypical representative in a cloud of exemplars. Speakers constantly produce different phonetic (or even different orthographic) versions of a construction (constructs). These versions are subsumed (and cognitively stored) in so-called exemplar clouds with a prototypical center. A construction in that sense is the representation of that cloud or the prototypical member of that cloud (see Bybee 2003, 2010).

In general, square brackets [] are always used to represent the formal side of a construction, which includes the morphosyntactic representation. In the postulated schematic constructions capitalized elements represent word classes (e.g. DEM for ‘demonstrative’; POSS for ‘possessive’; CN for ‘common noun’) or phrases (e.g. NP for ‘noun phrase’). Anything in subscript is additional information on important grammatical features (e.g. ‘infl’ for ‘inflected’; ‘acc’ for ‘accusative case’). Curly brackets { } are reserved for indicating semantic and discourse-pragmatic features. The semantic representation is partial and informal, in the sense that not all meaning aspects will always be captured and alternative and additional wording is often possible. Also note that in order to keep the formalization short, any kind of potential NP posthead will not be included in the annotation. For the same reason, I also leave out phonetic transcription which constitutes an important part of a speaker’s knowledge (Phon) and which would also be required in a full constructional representation.

As can be seen, also superscript indices are used in the complex construction mentioned above (e.g. [[POSS_{infl}¹]+[CN_{infl}²]]_{NPdef}). These indices express that the constructions are transparent and compositional in the sense that the indexed parts contribute the indexed meaning to the overall construction (see above). As was mentioned in section 4.1.1, schematic constructions are considered to be stored in a prefabricated manner in the sense that the speaker has a template

which is not constructed online but ‘stored’, which s/he then fills with particular linguistic elements (most of which are constructions themselves). In many cases, the meaning of a construction is stored holistically (e.g. words, idiomatic expressions). However, constructions are often (partially) compositional in the sense that the speaker can identify which specific elements contribute which specific semantic facet to the overall meaning. If a particular semantic or discourse-pragmatic feature cannot be assigned to an individual element in the construction, but rather emerges ‘holistically’, the whole construction should be indexed instead.¹¹⁸ For example, the speaker’s discourse-pragmatic knowledge that *Wesap ġē hāle* functions as a fixed phrase used for greetings and goodbyes, is indexed on another level (index 3).

M:	Sem: {be-you ¹ healthy ² } ³ Prag: Greeting phrase for saying hello or saying goodbye (to more than one man, or to a mixed gender group) ²
↕	
F:	[<i>Wesap ġē¹ hāle²</i>] ³

According to Goldberg’s usage-based 2006 definition, a multiword sequence might become a separate node with full constructional status in the constructional network if it (a) has unpredictable idiosyncratic properties which are not inherited down by default or (b) if it is used very frequently. Following this definition, the above mentioned OE phrase [*Wesap ġē hāle*] is a construction in its own right because it has acquired some idiosyncratic discourse-pragmatic meaning. Similarly, I argue that a construct like *se almihtiga God* – although being fully predictable – is a separate construction [*se almihtiga God*]. On the one hand, the construct is successfully licensed by the abstract $[[\text{DEM}_{\text{infl}}] + [\text{ADJ}_{\text{infl}}] + [\text{PN}_{\text{infl}}]]_{\text{NPdef}}$ construction. On the other hand, my corpus analysis shows that the combination is so frequently used that it is extremely likely that the speaker also stores it as a separate node in the network (also see section 4.1.1).

Another major constructional tenet is the postulation of the construction: speakers organize their constructions in a network. In the construction, constructions are conceptualized as nodes connected via links. Related constructions are connected as constructional families in taxonomic and meronymic networks and inherit information from each other. Starting with parsing constructs

118 Note that for the sake of readability, I will not always index compositionality in all constructions which will be discussed. Often compositionality is so transparent that the reader will be able to assign indices him or herself.

in the input, the network is established in a bottom-up fashion during the acquisition process. It is argued that speakers listen to the input they receive, find similarities (classify/categorize elements) and abstract underlying schema that many constructs share. All grammatical generalizations are derived from the user's experience with language and structure emerges through repetition, conventionalization and categorization. As constructions are based on generalizations over actual utterances, input frequency (type and token) influences the emergence and entrenchment of schemas. When the network is established and relatively stable, information is inherited top-down (via vertical links); from the most abstract constructions to more specific ones. Additionally, constructions can also be linked horizontally if they share semantic or formal features (see section 4.1.2).

For example, possessive constructions (with only one determinative in the prehead) in Old English might be connected in the network as shown in Figure 18. Based on many constructs (e.g. *his lif*, *his sunu*, ...) which the learner is confronted with in his/her input, various semi-specified constructions get successfully entrenched (e.g. the $[[his_{infl}]+[CN_{infl}]]_{NPdef}$ construction). On top of that, the speaker abstracts further and sees a similarity between all the constructions, which leads to the entrenchment of an even more abstract construction, namely the $[[POSS_{infl}]+[CN_{infl}]]_{NPdef}$ construction.

In other words, I assume that *heora cyning* is licensed by an intermediate lower-level construction, the $[[heora_{infl}^1]+[CN_{infl}^2]]_{NPdef}$. Such a construction has an intermediate level of schematicity as we have a lexically open underspecified slot but also a fixed substantive element. Similarly, *his sunu* would be licensed by the $[[his_{infl}^1]+[CN_{infl}^2]]_{NPdef}$ construction. I postulate the existence of this semi-specified constructional level as a reaction to the assumed steps in the acquisition process: a language learner, who constructs his/her construction bottom-up (based on constructs heard repeatedly in the input), will entrench this semi-specified constructional level earlier than the more abstract node $[[POSS_{infl}^1]+[CN_{infl}^2]]_{NPdef}$. Due to this strong and early entrenchment, I hypothesize that this semi-specified level does not necessarily dissolve after the more abstract schema has established itself. Obviously, such an assumption makes the network redundant as two constructions successfully license the same construct. I do not consider this a problem as I adhere to a constructional model which allows for the storage of information in a redundant way. Nevertheless, I also see the option to sketch a network in which the semi-specified midlevel dissolves after the establishment of the higher node which successfully licenses the same constructs.

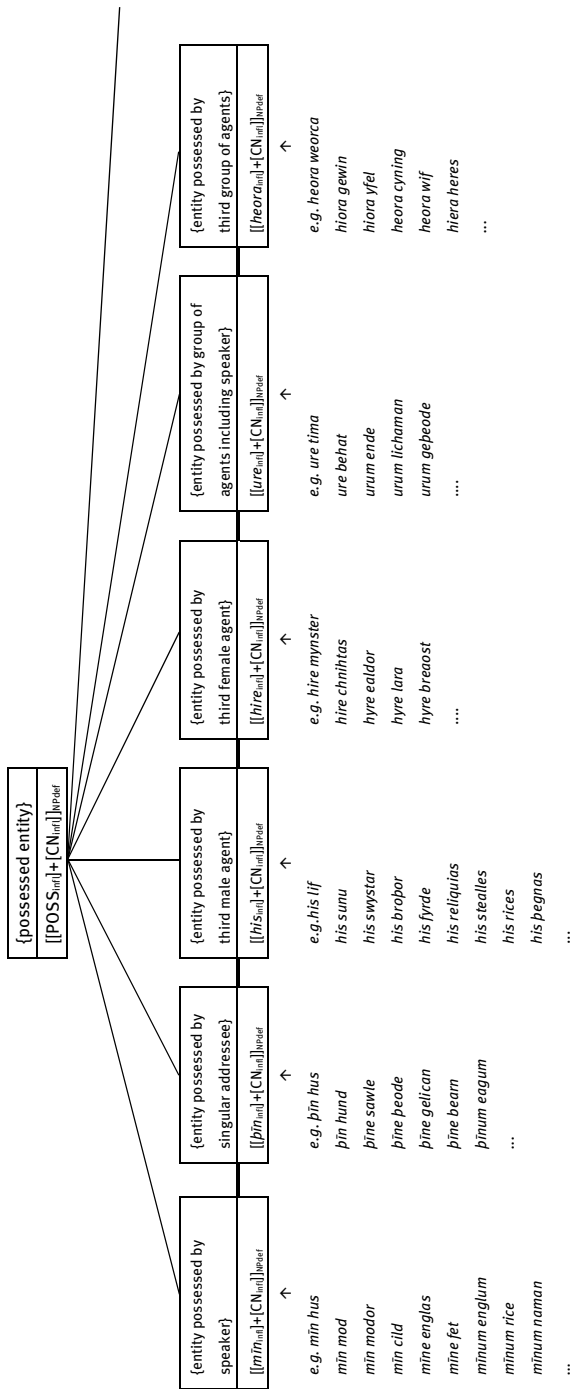


Fig. 18: Partial network of possessive constructions in early Old English (excluding duals and 2nd person gen. pl. *ēoper*)

As can be seen in Figure 18, the individual constructions are also linked horizontally. In current constructional models the status of horizontal connections is still debated. In this book I adopt an approach where horizontal links express paradigmatic relations between different choices or cells in a paradigm (van de Velde 2014). The constructions share some general meaning but at the same time are different from each other in terms of their form and function. In the case of the possessive constructions above, all the semi-specified constructions are horizontally related and positioned on the same midlevel of abstractness, because the constructions are formally and semantically very similar and the pronouns in pre-head position are paradigmatically related (see section 4.1.2.2).

Looking at some of the constructs in Figure 18, for example *his reliquias*, *his begnas*, *his stealle* or *his rices*, it becomes quite obvious that the $[[\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ schema is a simplified schema. The listed common nouns are plural nouns with a distinct suffix (*-es/-as*) coding {plurality}. So the postulated abstract $[\text{CN}_{\text{infl}}]$ construction which has been presented so far is a simplification in two ways: first, the common noun schema $[\text{CN}_{\text{infl}}]$ is a simplified schema representative of several, more complex (morphological) plural schemas: for example, $[\text{CN}_{\text{count,masc}} + \text{es}]$ or $[\text{CN}_{\text{count,fem}} + \text{as}]$. Second, the subscript ‘infl’ should be indexed in some way to show that there has to be agreement between head and determiner: $[[\text{POSS}_{\text{infl}}^i] + [\text{CN}_{\text{infl}}^i]]_{\text{NPdef}}$. In any case, the examples show that constructions are made up of other constructions. Constructions can be embedded into each other and constitute the building blocks of language.

7.1 Constructionalization of a schematic definite NP construction with a determination slot

After revisiting some of the basics of constructional modelling and my application to some OE noun phrase structures, I will now move on to outline the five step process of the articles’ development. Based on the results discussed in chapter 6, a simple but crucial observation can be made in Old English: it is hard to find CNPs in a semantically definite context which are not marked by an element in the prehead that overtly marks them as being definite. Already at this attested stage of Old English, a demonstrative or a possessive or a genitive construction almost always occurs somewhere in the prehead and marks the head as definite. Speakers simply often need to express semantic notions like {possession} or {spatial deixis}. Additionally, demonstrative, possessive or genitive constructions are positioned to the left of the head noun quite consistently at this point. Let us call this Stage 1 at t_1 . This stage is represented by the linguistic evidence found in all

the investigated manuscripts tagged as o.2 in the *YCOE* (see results in Table 33, section 6.1).

I now hypothesize that based on their input (with the constructs listed below being extremely frequent), speakers of Old English will abstract the NP schemas in Figure 19:

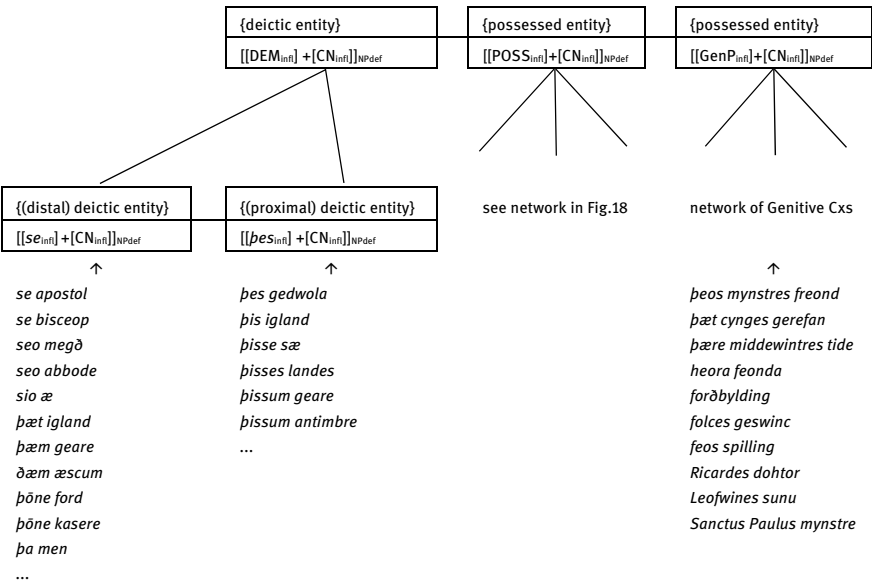


Fig. 19: Partial network of definite CNP constructions in Old English¹¹⁹

119 As can be seen in Figure 19, I postulate a horizontal connection between $[[GenP_{infl}] + [CN_{infl}]]_{NPdef}$ and the other two constructions. Whereas the first two are very similar in terms of form (and function), the third admittedly differs in its formal shape. On the one hand, the prehead is often filled by a complex genitive phrase instead of a single item in determiner position; on the other hand, also proper nouns are being used. Nevertheless, I claim that a horizontal connection is established between the constructions due to the fact that some formal and functional similarity can be detected. Additionally, it is important to understand that in Old English no clear-cut distinction between distal *se* and proximal *þes* existed. The simple demonstrative *se* was often used to express spatial or intertextual proximity as well. The clear division of labor only developed later in the 12th century (see section 3.1). This is why the postulated semantics of the two demonstrative NPs above is an (inaccurate but motivated) simplification.

Of course, the listener will come across various other, more complex definite constructs as well. The NP is sometimes extended by adjectival modifiers or numerals and other quantifying and modifying elements:

$$[[\text{DEM}_{\text{infl}}] + [\text{AD}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}} \quad [[\text{POSS}_{\text{infl}}] + [\text{NUM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}^{120}$$

Even though definite reference was indicated quite often at this stage, the essential point is that the overt marking of definite reference is not yet obligatory. So the noun can occur completely unmarked:¹²¹

$$[[\text{CN}_{\text{infl}}]]_{\text{NPdef}}$$

Additionally, as discussed in section 6.2, NPs with two determinatives in one NP also occur:¹²²

$$[[\text{DEM}_{\text{infl}}] + [\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}} \quad [[\text{POSS}_{\text{infl}}] + [\text{DEM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$$

However, the distributional analyses in chapter 5 and 6 reveal that such co-occurrence patterns or definite ‘bare’ NPs are quite rare. Thus, the prototypical definite CNP is a noun phrase with one element overtly marking definiteness.

I hypothesize that the speaker computes the following three pattern preferences when analyzing Stage 1 input:

- When the NP is definite, the common noun that functions as the head is almost always preceded by at least one element that overtly expresses definiteness.
- If more elements are to be found in the prehead, the one determining reference will most of the time be found to the left of the elements which quantify or modify reference (e.g. attributive adjectives).
- The demonstrative is used about three times more often as a prehead element than a possessive pronoun or genitive construction.

120 The listener also encounters many other CNPs (indefinite or non-referential ones) which follow other templates (e.g. heads which are only modified by a quantifier or only by an adjective or heads which are not modified at all).

121 E.g. *He is swiðe biter on muðe* ‘He is very bitter in mouth’ (coboeth, Bo:22.51.2.927).

122 E.g. *se cyning ne fylgde ne na onhirede his þone treowleasan fæder* ‘the king not followed or strengthened his that unloyal father’ (cogregdC, GDPref_and_3_[C]:31.239.15.3364).

The function of marking the referent of the noun phrase as definite at that point in time is ‘parasitic’. The definiteness function only attaches to the demonstrative or the possessive parasitically, as, for example, the demonstrative’s primary function is to express a spatial relation. Nevertheless, it simultaneously also lends definite reference to the NP. Also note that putting determinatives left of the head at this stage does not necessarily imply the existence of a fixed positional slot in the prehead, where determinatives must be inserted. At this point the speaker just faithfully copies the linguistic patterns s/he encounters in order to follow the patterns of the linguistic majority in his/her speech community.

I now assume that some speakers (especially a younger generation of language learners) interpret the linguistic input of Stage 1 differently and develop an understanding of a ‘regularity’ namely that marking definite reference in a certain fixed position in the NP is obligatory. In other words, some speakers apply three new ‘strategies’ to form their linguistic output. In very simple terms the three strategies are: (a) always mark definite reference overtly, (b) mark definite reference in a certain slot and (c) to do so, use a demonstrative as the default slotfiller.

With regard to (a), the speaker by hypothesis compares the NPs in his/her input to each other and concludes (albeit subconsciously) that definiteness has to be marked by some material element (i.e. a definite determiner). The listener then abstracts the even more abstract NP schema in Figure 20. The dashed lines indicate that this construction is emerging.

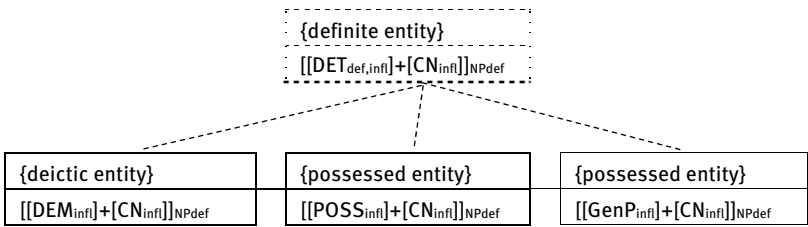


Fig. 20: Emergence of an abstract definite NP schema

This schema is prototypical for NPs with definite reference. In other words, overt marking is interpreted as the default option if the referent of the NP is definite. The cognitive reasons, why the speaker feels the need and obligation to always

use an element to mark semantic definiteness overtly will be discussed in the next sections.¹²³

As for (b), I suggest that the speaker – influenced by many definite and indefinite CNPs – at some point also conceptualizes another entirely abstract NP schema with a positional determination slot (before a quantifier and modifier slot) which is reserved for determinatives. As mentioned above, the speaker encounters many complex NPs with quantification and modification. In those complex CNPs determinatives are located in a particular position (left of quantifiers and modifiers) most of the time. This will support the speaker's realization that certain elements cluster in that location. As a result of word order preferences, an abstract construction with local slots constructionalizes:

{grounded quantified specified entity} ¹²⁴
[[<u> </u>] _{DETERMINATION} + <u> </u> _{QUANTIFICATION} + <u> </u> _{MODIFICATION} + <u> </u> _{CN}] _{HEAD}] _{NP}

The moment this construction emerges it also feeds information into the network. The existence of this construction represents the speaker's knowledge about OE word order conventions. Influenced by this information, it is likely that the speakers replace the $[[\text{DET}_{\text{def,infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ construction by the following construction:

{definite entity}
$[[\text{DET}_{\text{def,infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NPdef}}$

123 In Figure 20, the $[[\text{GenP}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ construction contributes to the abstraction of the more abstract definite schema (which is indicated by the vertical link). It could be argued that such a connection is unlikely because a genitive phrase with its complex internal structure (form and function) will not trigger the abstraction of a definite determiner position. Although the formal difference of a phrasal construction has to be taken into consideration, I still postulate this link because in terms of function genitive phrases are inherently definite and are thus functionally similar. In a construct like *Ricardes dohtor*, the proper noun *Ricardes* is inherently definite and like a determinative enables the listener to identify the referent successfully.

124 The suggested semantics of this construction are highly debatable. It is an unresolved debate among construction grammarians if every construction has meaning (Hilpert 2014). Regarding this question the camps are divided. Whereas one group allows for some very abstract constructions (e.g. Subject-Predicate, Modifier-Head) to have no semantic meaning per se (Fillmore 2013), other scholars claim that even with those extremely abstract constructions which license thousands of constructs some semantic overarching meaning or function can be identified (e.g. Goldberg 1995, 2006; Langacker 1991). I side with the latter group which argues that by definition constructions have to be meaningful. Importantly, however, this meaning will be very abstract and prototypical.

What is the difference between the two constructions? In the newly established $[[\text{DET}_{\text{def,infl}}]\text{DETERMINATION} + [\text{CN}_{\text{infl}}]\text{HEAD}]\text{NP}_{\text{def}}$ construction, the determination slot itself becomes functional, which means that the speaker has acquired knowledge of the specific ways in which the slot has to be treated. For example, filling the determination slot is obligatory if the NP is definite. The point of slot emergence will differ for each speaker and thus the process from a meta perspective will be gradual. It will not be the case that a whole speaker community uses the slot from one day to another. From the speaker's inner perspective, however, it is assumed that the categorization of a determination slot is a rather sudden development in his/her learning process. Either a speaker has conceptualized a slot or not.

This network modification has several effects: first of all, bare CNPs in definite contexts are obviously not licensed by this schema, which is why ultimately the $[[\text{CN}_{\text{infl}}]]\text{NP}_{\text{def}}$ will dissolve in the speaker's personal constructicon (i.e. a case of 'constructional death') (see section 7.1.1 below). Another point is that the slot can only be filled by one element at the time. This explains why co-occurrence of POSS+DEM, which is still productive in Old English, does not occur in later stages of English. Nodes like $[[\text{DEM}_{\text{infl}}] + [\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]\text{NP}_{\text{def}}$ will dissolve from the network as well.

Finally, the third conclusion that the speaker draws is that s/he needs a default slotfiller. If it is concluded that definiteness marking is obligatory, the speaker will choose an element to fulfill this role by default whenever the position is not already filled by another element which parasitically marks definiteness. The speaker will choose one of the linguistic forms that is available. Since the OE demonstrative is already quite frequent as a determinative (three times more frequent than any other determinative), its high frequency makes it a prominent candidate for the job of a default filler (see section 7.2 for further details on the recruitment of $[\text{se}_{\text{infl}}]$).

7.1.1 Emerging network structure shaped by frequency effects and analogical thinking

In the present case of constructionalization, a lot of analogical reasoning on the speaker's side can be hypothesized. When the speaker analyzes his/her OE input, the following analogies may be drawn: first, the speaker assigns the same structure, namely $[[\text{DEM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]\text{NP}_{\text{def}}$ to constructs like *se bisceop*, *sio æ*, *pōne ford*, *ðæm æscum*; similarly the $[[\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]\text{NP}_{\text{def}}$ will be generalized over the constructs that fit this schema (see Figure 18). At one point in time, the speaker will also notice that those constructions have something in common conceptually

and formally, namely that one element which is positioned in front of the head noun expresses definiteness. This is the point when the speaker abstracts the $[[\text{DET}_{\text{def,infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ construction.

In a next step, this construction with an overt definiteness marker gets analogically extended to the other semantically definite but syntactically bare CN cases (being less frequent and thus less prototypical). In other words, the speaker overgeneralizes the pattern and extends the schema to non-prototypical instances to get rid of ‘the odd man out.’ This is the reason why the bare CNPs in definite contexts become ungrammatical (with a few exceptions which should be conceptualized as idiomatic structures on a lower constructional level). So a schematic construction constitutes a model according to which other constructional patterns are realigned.

It only seems possible for the language user to abstract a schema if s/he notices this schema in the first place. Any schematization is favored and triggered by the high frequency of syntactic patterns which are compatible with such an underlying schematic interpretation. It is assumed that the speaker’s mind is sensitive to statistical information. How often a pattern occurs in the input is relevant as it increases the potential emergence and subsequent successful entrenchment of a constructional schema. In other words, a collocational pattern has to reach a threshold in terms of frequency in order for a speaker to notice its abstract structure. As Bybee remarks:

An important characteristic of human language is that the individual units and sequences of units are subject to high levels of repetition. It is repetition that leads to conventionalization of categories and associations, as well as to the automation of sequences. Because some units and sequences are repeated more than others, it has been possible to identify the properties of cognitive representations that depend upon the extent to which they have been accessed for production or perception. Thus, within Usage-Based Theory the study of frequency effects of various sorts has contributed to the understanding of the nature of grammatical organization. (Bybee 2013: 50)

The number of constructs which are compatible with the $[[\text{DEM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ Or $[[\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ construction is definitely high enough (in type and token frequency; see section 6.1), which is why the speaker notices these abstract schemas. Thus the creation of the slot which has to be filled obligatorily is licensed by the existence of many NP constructs which already fit the construction. That the slot emerges at a certain point is therefore strongly influenced by frequency and analogical reasoning skills on the side of the language user.

7.1.2 The cognitive cycle of constructionalization

One major argument in this book is that grammaticalization is an epiphenomenon. It is a very useful umbrella term but a concept which can only be applied from a speaker-external perspective. As a matter of fact “clines cannot be part of a speaker’s grammar, and hence cannot be [psychologically] real” (Fischer 2007: 117). Whereas a system can undergo some re-interpretation in time with elements grammaticalizing, the individual speaker generally does not actively ‘grammaticalize’ things. From a Cognitive Construction Grammar perspective, it is much more interesting to discuss the speaker-internal mechanisms which are potentially at work. Also, as shown in the previous chapters, grammaticalization is influenced by constructionalization which often precedes it. Constructionalization, in contrast to grammaticalization, is more of a cognitive process as the term refers to the successful addition of a new construction to the mental network.

That is why the cycle postulated in Figure 21 aims to highlight the cognitive processes which are at work in the constructionalization process. The speaker-internal processes are triggered by the high type and token frequency of certain linguistic forms and patterns in the linguistic input. Frequency as a factor is not included as a step in the circle as it is not a mental cognitive process. Frequency only motivates language change indirectly via strong or weak entrenchment.

The speaker who encounters linguistic items and constructions frequently enough starts to memorize and imitate them; imitation leads to ritualization/habituation which leads to strong entrenchment. When parsing the input, the learner/speaker also starts to notice semantic and structural similarities. Due to his/her ability to draw analogical conclusions, he/she will establish links between the elements and categorize the input. This formal and semantic categorization (e.g. into word classes, construction types, etc.) will make him/her align any input into those existing categories or rearrange the repertoire of existing constructions to match the input (also see Torrent 2015). This cycle, which is similar to Neels’s (2017) ‘frequency-driven feedback loop underlying constructional generalization’, in return will increase the frequency of certain forms in the speaker’s output, which then leads to a new round of imitation and memorization. This increase in frequency also has a direct effect on the linguistic form (e.g. ritualization leads to attrition; strong entrenchment leads to a stronger adjacency of forms; the conceptualization of a determination slot leads to fixation of the determinative element; etc.).

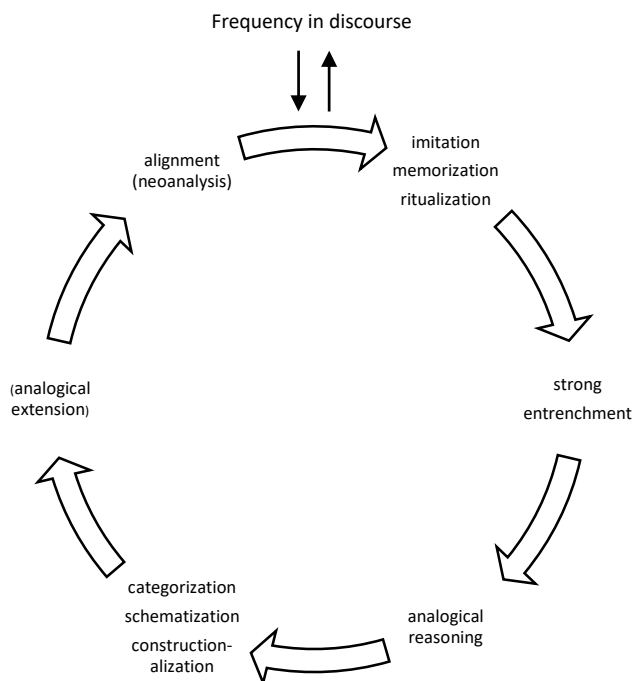


Fig. 21: Cognitive cycle of speaker-internal processes in constructionalization

In contrast to traditional grammaticalization parameters (e.g. Lehmann 1995[82]), the postulated cycle does not concentrate on the individual grams but on the cognitive processes that are hypothesized to go on in the speaker's mind. Analogical reasoning is seen as an internal, cognitive process, something that affects and shapes a speaker's mental setup. The cyclic process (including all the notions mentioned above), leads to an increase in the frequency of a certain form. Thus the frequency of certain forms and patterns is at the same time a speaker-external causal mechanism and a result of speaker-internal behavior. Strong entrenchment, categorization/schematization, analogical reasoning are primary factors whereas grammaticalization (a) is not part of cognitive processing itself and (b) comes later, being a result of the just mentioned factors.

7.1.3 Neoanalysis due to accommodation pressures and systemic simplification

Neoanalysis is also part of the cycle mentioned above. In section 4.2.4.1, neoanalysis was defined as a grammatical reorganization of existing surface patterns. Due to ambiguities or changing pattern frequencies in their input, a population of learners converges on a grammatical system which is different from “the system internalized by the speakers whose linguistic behavior provides the input” (Roberts and Roussou 2003: 11). In my cycle, neoanalysis is an important cognitive step. I adhere to the idea that language change is not possible without speakers aligning/arranging their knowledge in a new way (i.e. neoanalysis). Importantly, however, neoanalysis follows analogical reasoning in the postulated cycle.

The constructionalization which is postulated in this book also is an example of neoanalysis. At the earliest stages of Old English, the majority of speakers does not have a locally fixed prehead slot reserved to indicate definite reference and this slot does not have to be filled obligatorily. Nevertheless, in the linguistic output the position is filled most of the time. This might lead a subset of the population to draw different conclusions. Whereas for the majority of (potentially ‘older’) speakers the marking of definite reference is only a ‘variable strategy’,¹²⁵ this seems to be different for a subset of speakers (primarily the younger generation) who neoanalyze the system as one where definiteness has to be marked obligatorily.

This directly leads to the question why some speakers deviate from the majority practice for whom definiteness marking is only optional. Why is it the case that a speaker who receives input where definiteness is only marked ‘sometimes’, opts for obligatory definiteness marking ‘all of the time’? In the remaining section, I would like to suggest some likely reasons. I hypothesize the following:

We know that language learning primarily happens during childhood. The child develops its hypotheses about the grammatical system on the basis of the caregivers’ child-directed speech. Many studies have shown that this kind of ‘Motherese’ tends to be more listener friendly and more explicit than adult-adult language (Clark 2003: 38–40; see Hoff 2001: 119 for references). Based on those studies, I speculate that if definiteness marking is already very frequent in Old

¹²⁵ The variable strategy is to use determinatives more freely and only in certain semantically motivated situations.

English, it is likely that it is even more frequent in OE Motherese.¹²⁶ Although the parent generation does not mark definiteness obligatorily because it still follows a variable strategy, it is likely that the child nevertheless receives input where the demonstrative is marked extremely often:

When talking to the child, the caregiver has two options: either s/he relies on the fact that the child infers definite reference from the context, which is difficult for the child, or s/he marks definiteness explicitly, which is much more listener friendly. With an adult, one can be less explicit knowing that the adult will be capable of identifying definite reference from the context. However, the caregiver will not demand such discourse-pragmatic skills from the child. It is likely that s/he will try to be more explicit and thus mark definiteness more often than when talking to an adult. That means that the caregiver will exploit the variable strategy in such a way that marking definiteness occurs more often than not marking it. The caregiver prefers overt marking. At the same time, the child receives input where overt definiteness marking is significantly higher than in adult-adult conversation. Analyzing that input, the child hypothesizes that definiteness marking is obligatory.

Moreover, it is more difficult for a speaker to establish a detailed hypothesis when to mark or not mark definiteness overtly, than to go for a simpler 'rule', namely marking definiteness overtly all of the time. From that point of view, the obligatorification process is a matter of systemic simplification. Generally, a variable (conditioned) rule is more complex than an unconditioned rule because the speaker does not have to hypothesize about which context demands overt marking or not (Ritt, Smith and Fehér 2014).

Finally, the adult speaker, who still has a variable rule, does not consider it grammatically ill-formed when somebody marks definite reference all of the time. In a system where definiteness can be marked optionally, someone who opts for the possibility to mark it all the time, linguistically 'does the right thing'. The 'optional marking' grammar does not forbid to always mark definiteness explicitly. If two people speak to each other, the one who uses the pattern optionally will not notice anything special in the output of the one who uses it obligatorily. Thus, this speaker will not receive negative feedback. In other words, to change to a system where definiteness has to be marked obligatorily, is compatible with the majority system, and will thus receive positive feedback. On the other hand, for a speaker who has the rule to always mark definiteness, not marking it will be experienced as ill-formed output. Therefore, for this speaker group (younger

126 This idea is obviously based on the assumption that parents at that time addressed their children in a manner similar to today.

learners), the speakers with the optional rule (parents) sometimes ‘make mistakes’. Obviously, the learner generation may be aware of those ‘mistakes’ but as they do not occur frequently (the distribution of NPs is already skewed in favor of overt definiteness marking), their occurrence will not steer the learning process in a different direction.

In other words, an obligatory marking rule is able to establish itself in a subset of speakers because the behavior (linguistic output) it produces can also be produced by the carriers of the optional marking rule. It will not be recognized as unfamiliar. Therefore, the spread of obligatory marking is likely, since bearers of the optional marking rule are unable to recognize anything alien in the speech output produced on the basis of the obligatory marking system, whereas bearers of the new system would perceive output of the pre-change system as ungrammatical. All this leads to an irreversibly one-sided accommodation pressure towards obligatory marking.

Linguistic accommodation derives from instincts that make humans behave more favorably towards others whom they recognize as similar to themselves, and the instinctive response, which makes humans try and present themselves as similar to others (Dunbar 1997; Lieberman, Tooby and Cosmides 2007; Park, Schaller and Van Vugt 2008). A specifically human instinct for imitating one another’s behavior is probably the most important property of human organisms for the transmission of linguistic competence constituents. This instinct has been genetically selected to guarantee the acceptance and integration of individuals within groups, and to allow it to benefit from kin based and reciprocal altruism. Competence constituents become stabilized if they generate behavior which makes their speakers believe that they are similar and therefore biologically related to each other. Such an imitation instinct can be plausibly conceived to have emerged in the biological evolution of the human species, which is characterized by the emergence of social groups that are not only characterized by complex patterns of co-operation but also by an exceptional size (e.g. Dunbar 1997): if co-operative behavior is biologically most likely among kin, it will clearly pay to appear related to organisms on whose co-operation one depends, and the best way to appear related to an organism is to adopt its physiological and behavioral idiosyncrasies and to become as much like it as possible.

Generally, speakers will not deviate from the speech of their community for the simple reason that they want to belong. They normally accommodate their style of speaking to become more like that of their group based on a universal, perennial need for social approval and mutual intelligibility (Homans 1961; Trudgill 1986; Giles and Coupland 1991). If a younger generation’s production deviates from the parent generation, this new way of speaking is more likely to

spread if the parent generation still ‘believes’ that the younger generation speaks like they do.¹²⁷ The choice to mark definiteness all the time is compatible with that. It can be concluded that the discussed accommodation pressures and strategies lead to the overt coding of a discourse-pragmatic and semantic notion.

A critical reader might ask why the assumed neoanalysis did not happen earlier? If a one-sided accommodation pressure towards consistent marking really exists, why did this mechanism not trigger the change earlier, e.g. in West Germanic or Indo-Germanic or in all the other languages that still have optional marking? My whole line of argumentation rests on frequency and changing frequency distributions and on the fact that any language might have more than one option to code a grammatical notion (e.g. definiteness). The main point is that for a system to switch from optional towards obligatory, a certain threshold of overt definiteness marking has to be reached. Otherwise the speakers will not detect any prehead marking preferences in the first place. For my line of argumentation to work, it can only be concluded that this threshold was not met in earlier language stages. As was shown in chapter 5 and 6, demonstrative usage steadily increases in early Old English. In other words, the assumption is that the demonstrative was used less in West Germanic. At the same time, if speakers of a particular language have other successful means to express a certain concept (e.g. via inflectional endings), the pressure to develop a new alternative coding system is less strong. It is well known that the articles’ emergence coincides with case loss in Old English, so that it can be argued that the functional pressure was higher than before.

7.2 Recruitment of *se* as a default filler

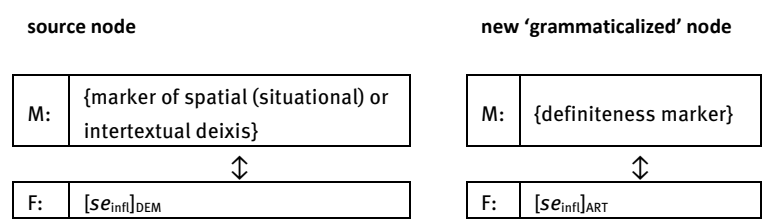
In the grammaticalization literature on article development scholars postulate that at one point in time the demonstrative *se* starts to grammaticalize. Frequent usage leads to ritualization which ultimately triggers an attrition process (e.g. semantic and phonological erosion) which in return increases the forms productivity. It is stated that a new element is created (i.e. the definite article) which ‘has its origin in’ and ‘split off from’ the demonstrative. This new element is more obligatory and more locally fixated than its source (see section 3.2.2).

From a constructionalist point of view, however, the statement that the word *se* grammaticalizes is a rather superficial statement. First of all, *se* only starts to

127 Of course, it is also possible that ‘stigmatized unfamiliar’ linguistic forms spread, even if the parent generation is fully aware of the linguistic deviation.

grammaticalize in its role as a dependent prehead element. Used independently as a demonstrative pronoun it follows another developmental path keeping its deictic force. Secondly, as shown above, the grammaticalization is triggered by another change to the system. I argue that the observable grammaticalization only takes place after the emergence of an abstract definite NP schema with a slot. As a reaction to the emergence of this abstract node and definiteness marking becoming obligatory, $[se_{infl}]_{DEM}$ is recruited as a default slotfiller. The demonstrative – from that perspective – only grammaticalizes as a result and in the context of the $[[DET_{def}]_{DETERMINATION} + [CN]_{HEAD}]_{NP_{def}}$ – construction.

In a constructional network model, the grammaticalization of the demonstrative into a definite article should be reconceptualized as a case of constructionalization and corresponds to the emergence of a new constructional node *novo loco*. In section 4.2.3, I distinguished between constructionalization *novo loco* and constructionalization *in situ* which has also been termed constructional substitution *in situ*. The development of the article is a case of constructionalization *novo loco*: a node constructionalizes which is added to the existing network at a new place and which is different from its constructional source (also see section 4.2.3):



The development of this new construction (i.e. the new category ‘definite article’) also fits the criteria for ‘grammatical constructionalization’. In chapter 4, grammatical constructionalization has been defined as the emergence of a form-meaning pairing which previously did not exist in the constructicon and which is more procedural/schematic in its meaning/function than its source. As was discussed in section 2.2.1, the definite article is an element which exclusively marks a procedural, discourse-pragmatic notion (namely ‘definiteness’ in the sense of identifiability, uniqueness, familiarity). The new construction has the same formal side like the demonstrative source construction, but differs on the meaning side.¹²⁸

128 Later in time, the new article node will undergo additional *in situ* changes (e.g. phonetic reduction from /e/ to /ə/, case loss) but at the moment of constructionalization the formal side is still the same.

Its new function increases its productivity (it is used more frequently by the speaker community).¹²⁹ Importantly, the newly emerged article does not substitute the source node but is added to the construction *novo loco*. The development of this new construction leads to the following reorganization of the OE network of definite NP constructions:

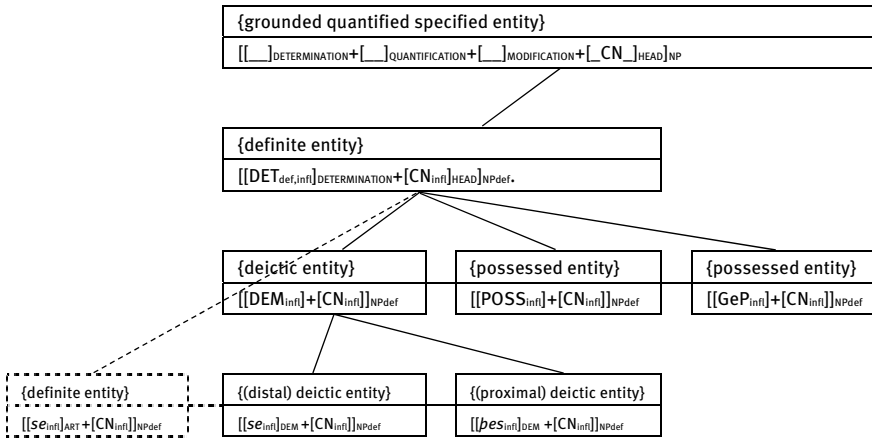


Fig. 22: Partial OE NP network including definite article node

The dashed lines indicate that not only the construction itself is emerging but also the link to the higher abstract node. Essentially it is the emergence of the highest node that triggers the ‘grammatical constructionalization’ of $[se_{inf}]_{ART}$ in the first place. Note that in Figure 22 I do not postulate the existence of an $[[ART_{def,inf}] + [CN_{inf}]]_{NPdef}$ node in the network. In late Old English $[se_{inf}]_{ART}$ is the only existing ‘article’ at this point. It is the only form that functions as a definite article which is why I don’t assume that speakers will abstract a categorical generalization higher up in the network.

In the traditional grammaticalization literature it is repeatedly stated that a grammaticalization cline from demonstrative to article is very likely as the two elements are semantically very close to each other. However, in some languages the source of the free-form definite article is a possessive pronoun and not a

¹²⁹ The third criterion compositionality does not apply in the case of single atomic elements. Later in time, the new article node will undergo additional *in situ* changes (e.g. phonetic reduction from /e/ to /ə/; but not at the beginning of the process; see the paragraphs below).

demonstrative. This begs the question why in English the demonstrative was recruited as the default filler? I argued earlier that the demonstrative's high frequency is responsible for the speakers' choice. It is natural that a speaker community chooses an element of high frequency to fulfill a particular function rather than choosing an element of low frequency.

The question remains why the demonstrative [*se_{infl}*]_{DEM} and the phrasal [[*se_{infl}*]_{DEM}+ [*CN_{infl}*]]_{NP_{def}} construction are frequent in the first place. Generally, linguistic items are frequent for many different reasons. On the one hand, frequency results from what speakers want to talk about, e.g. themselves (hence the high frequency of first person pronouns). On the other hand, the way speakers structure their discourse leads some elements to be more frequent than others. Finally, the steady repetition of an element may cause its semantic weakening and thereby increase its pragmatic usefulness by taking up new functions (Haiman 1994). This in return leads to an increase in frequency. All these factors seem to play a role in the case of the demonstrative.

If one uses a demonstrative to literally point to an element in a context where that particular object is visible, then the listener does not only have to rely on the semantic force of the demonstrative because the situational context helps him/her to identify the referent anyway. Thus the demonstrative force in that sense is not very strong. Bleaching will happen naturally, due to the situational circumstances. This 'weak demonstrative' then can be used in a broader range of pragmatic situations. For example, the referent does not have to be visible in the situational context. Speakers start to not only use the demonstrative to refer "to objects existing in the immediate situation of utterance" (Hawkins 2004: 84) but also to non-visible objects and previous discourse sets in the sense that its usage tells the listener that the entity was already mentioned. In other words, through the loss of its strong deictic force, the demonstrative's usage expands from visible to non-visible and to anaphoric reference. Crucially, an element that is used optionally to mark such contexts is a 'weak demonstrative' and not a 'definite article', which by definition is an obligatory syntactic element.

Examples of this new kind of intertextual deixis (proximity) can be found in *Ælefric's Colloquy* (Garmonsway 1938: 19–21), which was already presented in the introduction (ex.11):

(205)	Ic ga ut <i>I go out</i>	on dægærað <i>at dawn</i>	bywende <u>oxan</u> <i>driving oxen</i>	to felda, <i>to fields,</i>
	ond iugie hie <i>and I tie them</i>	to syl [...] <i>to plough [...]</i>	ac geiukodan <i>but when I yoked</i>	oxan ond <i>oxen and</i>

gefæstnodon	sceare ond	cultre	mid þære syl,...
<i>fastened</i>	<i>plough and</i>	<i>ploughshare</i>	<i>to that plough...</i>

‘At dawn I go out and drive some oxen to the fields and I tie them to a plough...
but when I yoked the oxen and fastened plough and ploughshare to that plough...’
(*Alfric’s Colloquy*, Garmonsway 1939: 19–21)

In this passage, we find the anaphoric reference *mid þære syl* (to that plough), which is based on the previous introduction of a *to syl* (to a plough). Here, it can be argued that the deictic force of *se* is already weak or not the primary reason for *se*’s usage. *Se* is used in a context where the farmer refers to an entity which does not exist in the immediate situation of the utterance (i.e. the fictional schoolroom where the teacher and the pupils are talking to each other). The demonstrative is used for a broader range of pragmatic situations than only marking a visible situation (Hawkins 2004: 85). Such a functional expansion leads to an increase in demonstrative usage, which also explains why the demonstrative is used three times more often than a possessive pronoun or a genitive construction in the OE prehead (see the results presented in chapter 5 and 6).

Another factor which may have triggered the increase of demonstrative usage was the fact that the case system started to break down in early Old English. As was pointed out in section 3.2.1, the inflectional case and gender system was declining. Due to the syncretism of several endings in the weak adjectival paradigm, case and gender could no longer be distinguished sufficiently, so the demonstrative was needed to disambiguate case and gender (Strang 1970: 301; Fischer 2000: 160). This may have led to an increase of the demonstrative in front of adjectival modifiers in definite NPs. Thus, the development of the definite article also preserved a regularity that was endangered by case loss. The article is not only a marker of phrase structure in on-line processing, but can also be a case assigner (Hawkins 2004: 92). It can be concluded that the bleaching of the demonstrative (due to situational circumstances) and its case-disambiguating function lead to an initial increase in demonstrative usage. This increased usage, however, then triggers the constructionalization of the determination slot and makes the ‘weak demonstrative’ the prime candidate to become the slotfiller.

In contrast to the ‘constructionalization *novo loco*’ of the new article category, the change where the spatial demonstrative is also used to indicate intertextual deixis is a case of ‘constructional substitution *in situ*’ which was also introduced in chapter 4. Here the original demonstrative construction

original node

M:	{marker of spatial (situational) deixis}
↕	
F:	[se _{infl}] _{DEM}

which was used in the earliest attested stages of Old English is at one point locally substituted *in situ* by a ‘new’ demonstrative node. This new node has a changed meaning side as the expression now also codes intertextual proximity:

new substituted node

M:	{marker of spatial (situational) or intertextual deixis}
↕	
F:	[se _{infl}] _{DEM}

As mentioned before such extended semantics allow for the construction to be used in more contexts than before.

To sum up, the grammatical constructionalization *novo loco* of the article category constitutes the 2nd step in the development. This constructionalization, however, is a result of the emergence of a very general abstract definite NP schema located higher in the network and the need for a default slotfiller. The speakers’ choice to recruit the demonstrative is influenced by its high frequency, which has come about due to semantic widening. Next, as a 3rd step, the linguistic system changes again because during the ME period the speakers also change their strategy when it comes to indefiniteness marking.

7.3 Constructionalization of indefinite NP construction and recruitment of *ān*

In chapter 5 and 6 it was shown beyond doubt that no indefinite article existed in early Old English. The [*ān*_{infl}]_{NUM} construction is used infrequently and most of the time it clearly functions as a numeral (see Figure 34, section 6.1). [*Ān*_{infl}]_{NUM}, when used as a prehead element, is part of the larger network of quantificational CNPs,

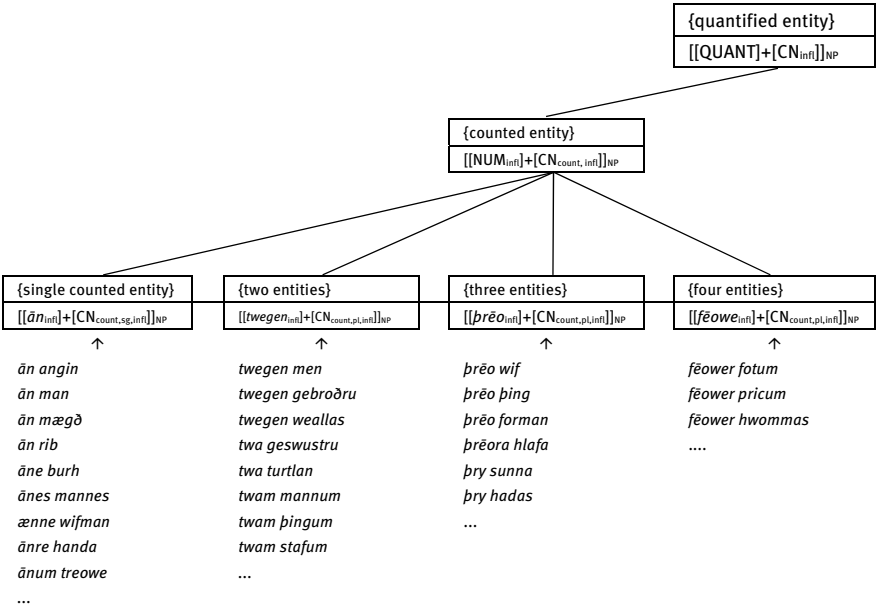


Fig. 23: Partial OE network of CNPs quantified by a numeral

Whereas definiteness is consistently marked by the time of late Old English, indefiniteness is not marked in the vast majority of cases. Instead, indefinite CNPs primarily inherit from the following abstract schemas:

[[CN_{infl}]]NP_{indef} [[AD]_{strong}]+[CN_{infl}]]NP_{indef}

Duru in example (206) is a construct licensed by the first schema, example (207) is licensed by the second schema:

(206) He *cuað*: ða ic hæfde ðone weall ðurhðyrelod ða geseah ic **duru**
He said: when I had the weall pierced then saw I **door**

‘He said: When I had pierced the wall, I saw a door’
(cocura,CP:21.155.3.1053)

(207) Hy arerdon **unrihte tollas**
They levied **unjust tolls**

‘They levied unjust tolls’
(cochronE,ChronE_[Plummer]:1086.30.2861)

As can be seen, neither singular nor plural nouns are marked by an overt article in an indefinite context. This situation will have changed by the time of Modern English when marking indefiniteness with singular count nouns is also obligatory.¹³⁰ The question is WHY the speakers at some point shift to the overt marking of indefiniteness? Here, I hypothesize the following development: I suggest speakers of early Middle English shift to the overt marking of indefiniteness because they shifted to the overt marking of definiteness before. I assume they extend their marking strategy by analogy. Influenced by the previous emergence of the $[[\text{DET}_{\text{def,inf}}]\text{DETERMINATION} + [\text{CN}_{\text{infl}}]\text{HEAD}]\text{NP}_{\text{def}}$ construction, I assume that via analogical thinking and extension, the following indefinite abstract CNP schema for singular CNs constructionalizes:

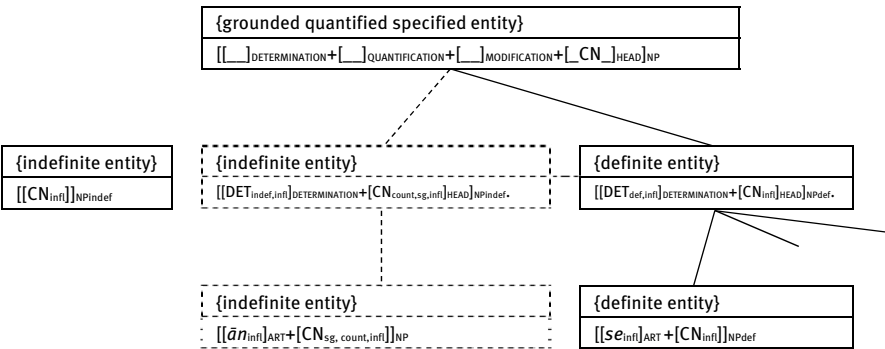


Fig. 24: Emergence of abstract indefinite CNPs schema and indefinite article in Middle English

In other words, the speakers decide to also mark indefinite singular contexts overtly. $[[\text{DET}_{\text{indef,inf}}]\text{DETERMINATION} + [\text{CN}_{\text{count,sg,inf}}]\text{HEAD}]\text{NP}_{\text{indef}}$ constructionalizes because the speakers – similar to what happened with definiteness marking – extend the very frequent definite NP schema with one element before the CN to the domain of the indefinite NP. The speakers feel the need to avoid bare common nouns in referential NPs. This constitutes the 3rd step in the process. Once this abstract node is established this leads to the grammatical constructionalization of the indefinite article (4th step). Similar to the grammaticalization process of the definite article, the numeral $[\bar{a}n_{\text{infl}}]_{\text{NUM}}$ grammaticalizes and a new indefinite article construction emerges: $[\bar{a}n_{\text{infl}}]_{\text{ART}}$. This development is another case of a grammatical

130 When I say ‘obligatory’ I mean in the vast majority of cases. There will always be exceptional constructions which do not follow the schema.

constructionalization *novo loco*. By doing so, the speakers have a processing advantage and a functional, discourse-pragmatic advantage. The indefinite article – like the definite one – acts as an unambiguous signal for referentiality and nominality. At the same time it successfully grounds the element in discourse. This line of reasoning will be discussed in more detail in section 7.5.

After the two nodes have developed and are stably entrenched, this in return causes some crucial reorganization of the constructional network of noun phrases. First of all, the bare noun schema $[[CN_{infl}]]_{NP_{indef}}$, which so far has been used in indefinite contexts (see Fig.24), is limited to plural and mass referents only:

$$[[CN_{pl/mass, infl}]]_{NP_{indef}}$$

Second, I suggest that the speakers abstract an article category [ART]. The linguistic system now has more than one element to mark (in)definiteness. In constructionalist lingo, [ART] is an atomic and schematic construction which subsumes linguistic procedural elements that exclusively and obligatorily mark (in)definiteness in a fixed syntactic position (i.e. default slotfiller of the determination slot). Thirdly, a new general schema for referential CNPs is established in which any referential noun needs to be grounded by a determinative:

$$[[DET]_{DETERMINATION} + [CN_{infl}]_{HEAD}]_{NP_{ref}}$$

If the overt marking of referentiality is generally required, then bare indefinite NPs with plural and mass nouns become the unmarked ‘odd man out’. Figure 25 shows how this abstract referential schema is connected to lower nodes in the network:

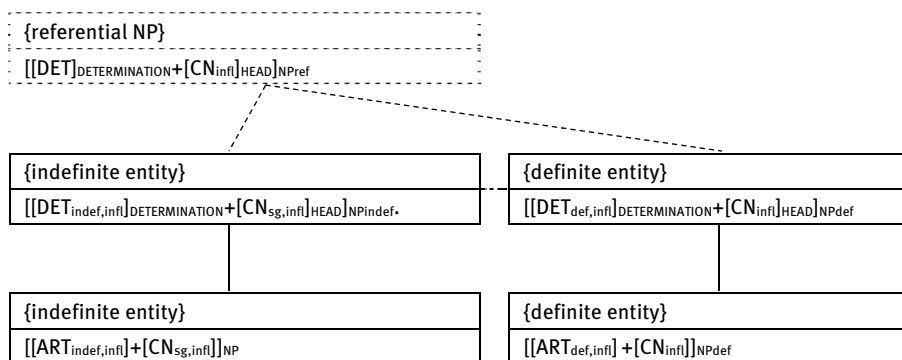


Fig. 25: Network reorganization of referential CNPs in late Middle English

7.4 ‘Later’ developments: recruitment of *some* as indefinite plural article and extension of determiner class

As a result, speakers will ultimately recruit an indefiniteness marker for plural and mass nouns. This is the reason why ME *sum* and *any* start to grammaticalize into indefinite articles as well: e.g. $[sum_{\text{infl}}]_{\text{QUANT}} > [sum_{\text{infl}}]_{\text{ART}}$. This development constitutes the 5th major step in my story.

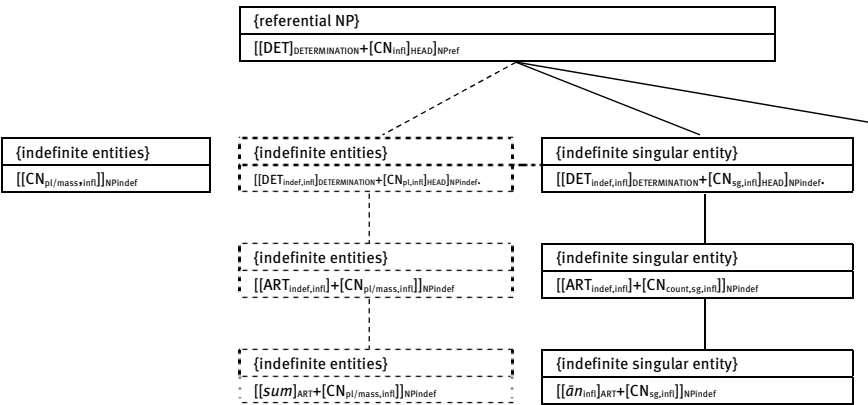


Fig. 26: Network reorganization of indefinite CNPs in late Middle English

Throughout the years, the postulated grammatical construction with a determination slot establishes a gravitational pole that can attract filler items (Krug 2000: §5.7). A slot, in the sense of Bisang (1998), can be seen as an ‘attractor position’ which also invites other elements to grammaticalize in it (e.g. $[sum_{\text{infl}}]$). This directly leads to the issue of gradience and gradualness (Aarts 2004, 2007; Traugott and Trousdale 2010). As can be seen in the steps above, the class of determinatives gradually continues to accrue its membership by the recruitment of more and more slotfillers. Category membership can change diachronically with a gradual increase or decrease in the number of members of a certain category. This explains the notion of gradience in synchrony, whereby some elements are more prototypical members of a class while others are less prototypical or border cases that are hard to assign to a particular category. For example, the definite article is the most prototypical determiner. The other elements joined the group much later and are thus less prototypical determinatives. Additionally, it can be observed that some elements currently move around in the left periphery of the English NP. Elements which used to behave like modifiers take up the characteristics of determinatives. When doing so they change their position (movement to the

left) and also their semantics (see the work by Adamson 2000; Breban and Davidse 2003; Breban 2008, Davidse, Breban and van Linden 2008; Breban 2010 on subjectification and category shift in the premodifying string).

What I argue is that, for these category shifts (i.e. constructionalizations) to take place, the network of OE NP constructions had to change first on a more abstract level. One of the changes was the emergence of a determination slot. Elements will be employed as potential default slotfillers in a gradual manner only if a slot and strategies about how it has to be filled developed in the first place. Bisang's suggestion (1998) that constructions establish a gravitational pole is a statement about function, but also about form. The term 'pole' already by definition incorporates the notion of locality. Elements move towards (are sucked into) a certain position and become locally fixed. Such a process can be subsumed under the term grammaticalization, but in order for all of this to happen, the emergence of an obligatorily filled and lexically underspecified slot seems to be a prerequisite.

Admittedly, it is an undeniable fact that the bare $[[\text{CN}_{\text{plural, infl}}]]_{\text{NP indef}}$ remains a strongly entrenched construction for a long time (until today) and any constructionalist model must account for why it has managed to remain a stable construction in a network where speakers code (in)definiteness overtly in thousands of cases (see my thoughts in section 7.6 below).

7.5 Additional factors influencing the development of the articles

What other factors may have supported the emergence of the articles? I suggest that the speaker's analogical reasoning is not only triggered by prototypical patterns in the domain of the definite NP, but I propose that also the general structure of the NP (on a more abstract constructional level) may have supported the process (see section 7.5.1 below on syntactic heaviness). Related to this, the cognitive salience of the common noun seems to be a crucial factor. Finally, I also propose that the observable change is supported by a general tendency to make on-line processing more efficient for the 'human parser' (i.e. the speaker/listener who receives linguistic input one by one in a parse string in real time) (section 7.5.2 on processing efficiency and performance economy).

7.5.1 Syntactic heaviness

So far, it has been argued that complex analogy and frequency effects on the level of the definite NP are responsible for the emergence of an abstract definite NP schema. Influenced by the high frequency of three definite OE NP constructions (e.g. $[[DEM_{infl}]+[CN_{infl}]]_{NPdef}$; $[[Poss_{infl}]+[CN_{infl}]]_{NPdef}$, $[[GenP_{infl}]+[CN]]_{NPdef}$), the learner analogically abstracts a pattern preference for $[[DET_{infl}]+[CN_{infl}]]_{NPdef}$ which finally, together with other constructional influences, licenses the conceptualization of an abstract construction with a specific local determination slot: $[[DET_{def,infl}]_{DETERMINATION}+[CN_{infl}]_{HEAD}]_{NPdef}$. This also leads to the entrenchment of a similar construction for indefinite CNPs: $[[DET_{indef,infl}]_{DETERMINATION}+[CN_{count,sg,infl}]_{HEAD}]_{NPindef}$. However, it seems that it was not merely pattern preferences on the level of the definite NP that influenced the constructions' emergence, but that on a more abstract NP level (including definite, indefinite, and non-referential NPs) a similar pattern preference also supports the process.

In this section it will be shown that in Old English we find a general 'one word' prehead pattern preference for CNPs. Most NPs follow an $[[X]+[CN_{infl}]]_{NP}$ schema with only one prehead element before the head. This prototypical construction, which is far more frequent than the $[[CN_{infl}]]_{NP}$ construction where the common noun occurs without any prehead elements, may have had a subtle but underestimated impact on the (emerging) structures on the definite and the indefinite NP level. In other words, the constructionalization of a definite NP schema and the later constructionalization of a similar indefinite NP schema is also sanctioned by a prehead pattern preference for $[[X]+[CN_{infl}]]_{NP}$ on the level of the general NP (including definite, indefinite and non-referential reference).

The argument which I have in mind is related to the concept of 'heaviness' and 'syntactic weight'. The term 'heaviness' is also known as 'syntactic weight' or 'syntactic length' and is a concept which depicts the relative complexity of sentence elements. Weight and heaviness have been defined and measured in various ways (Hawkins 1994; Wasow 1997; Crystal 2003). A clause as subject or object is considered to be heavier than a lexical NP. A pronoun as subject is considered less heavy than an NP with a prehead. The order of elements in languages seems to be influenced by their heaviness. For instance, short elements are positioned before longer ones in right-branching VO languages whereas longer elements tend to occur before short ones in left-branching OV languages (Crystal 2003: 499). In this book, 'heaviness' is interpreted straightforwardly as the amount of words within the NP.

To investigate the influence of heaviness, one possible question is how 'heavy' the prehead is in general. In other words, how many NPs have no word,

one word, two words, three or more than three words as prehead elements. To provide empirical support, the *Peterborough* and the *Parker Chronicle* were investigated once more.

When analyzing the manuscripts, it can be observed that most NPs consist only of one word. The PB includes 15972 NPs in total (incl. common nouns, proper nouns or pronouns as head). As pronouns and proper nouns are generally not modified, such a result is not surprising. For example, 48% of all NPs in the *Peterborough Chronicle* are one-word NPs, 30 % are two-word NPs (X+N), 11% are three-word NPs (X+X+N), and 11% have more than three words (Fig.27).¹³¹

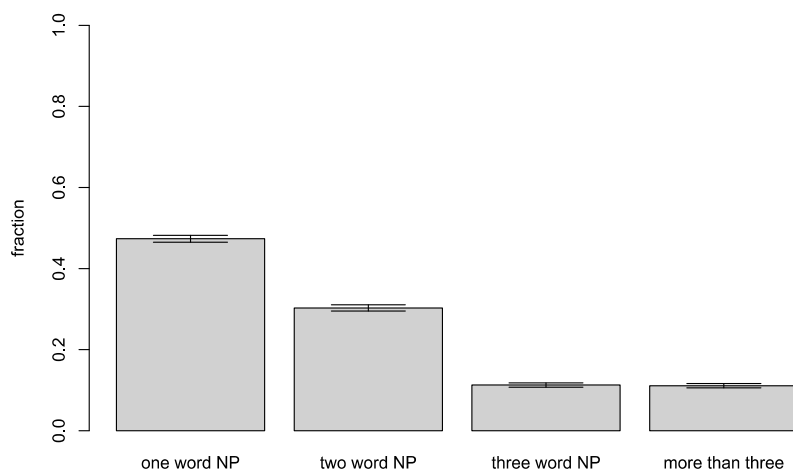


Fig. 27: Heaviness in the *Peterborough Chronicle*

However, zooming in on CNPs, frequencies are completely different (Fig. 28).¹³²

131 A very similar distribution can be found in the *Parker Chronicle*.

132 Note that in the *YCOE* corpus nouns and pronouns are not tagged as heads or prehead elements. When conducting searches in the corpus, it was not possible to distinguish between nouns which function as heads or those which have another function. Still, it seemed necessary to only concentrate on the cases where a common noun functions as a head. That is why the search query was designed in such a way that only those NPs were elicited in which the PN and the CN occur in the last position of the string. This means that for this study, a CN and PN was considered to head a phrase if it occurred in the last, right most position of the NP. This was decided to increase the chance to really analyze NPs where the CN functions as a head. This also means that the results

In this case, two-word NPs with only a single prehead element are the vast majority. For example, in the *Peterborough Chronicle*, 67% of the CNPs have a prehead which consists of one element (X+CN), 16% have a prehead with two elements (X+X+CN) or more than two elements (X+X+...+CN), and only in 17% of all the cases does the common noun occur bare with no prehead (CN).

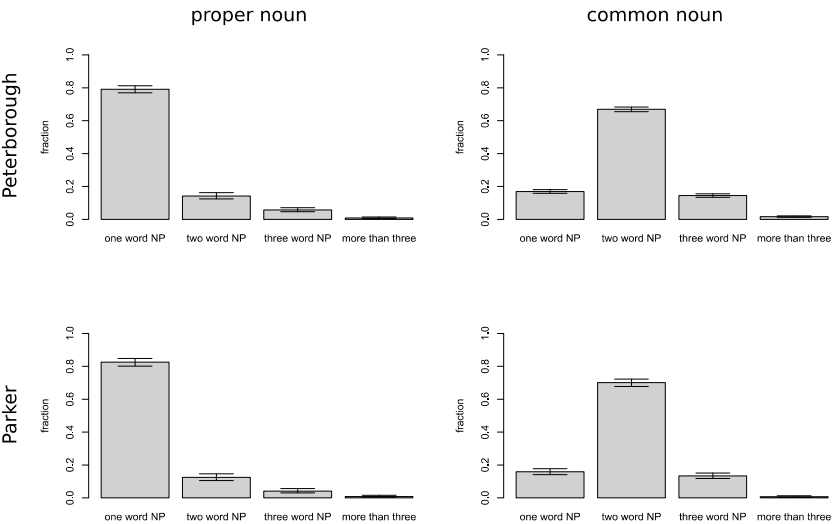


Fig. 28: Heaviness of PNPs and CNPs in the PB and PA

Two out of three NPs show a pattern preference for a one word prehead, and one third follows a different pattern. It is important to understand that $[[X]+[CN_{inf}]]_{NP}$ licenses definite and indefinite NPs as well as NPs with modifiers in adnominal position. NPs like *my king*, *no king*, *one king*, *two kings*, *that king*, *great king*... are captured here.

The situation is very similar for CNPs in the *Parker Chronicle* as shown in Figure 28; 70% of all CNPs show a ‘one element as prehead’ preference. About 13% have two prehead elements, 1% of all NPs has a prehead which has more than

presented (Fig.28) do not include the statistics for all NPs where the head noun is followed by a relative clause or any other posthead complementation pattern. However, this does not seem to be a severe problem, as postmodification is rather rare and the main interest lies on the heaviness of the prehead and preferred pattern preferences in the prehead.

three elements and 16% have no prehead. In contrast, when zooming in on the word class of proper nouns, most NPs occur bare without a prehead element.

What conclusions can be drawn from this? It can be observed that in general a preference for at least one prehead element exists. In other words, a single element before the common noun represents the most frequent constructional pattern with CNPs. Thus, when exposed to OE discourse, the speaker observes that syntactically most of the time the common noun is preceded by another element; a general $[[X]+[CN_{infl}]]_{NP}$ preference. Additionally, the speaker becomes aware that the element before the common noun semantically always restricts the scope of possible reference. *My king, one king* or even *great king* all have one thing in common, they specify or determine the common noun in a particular way. From that, the speaker abstracts a general constructional schema for NPs with a common noun as a head:

$$[[X]+[CN_{infl}]]_{NP}$$

This construction is the prototypical productive schema for CNPs. A general ‘one element as prehead’ bias with common nouns exists. The speaker prefers to fill at least one slot before the head noun.

If this is the case, this schema by analogical reasoning may easily have had some supporting effect on the emergence of the determination slot. If a speaker observes that common nouns most often show up in the $[[X]+[CN_{infl}]]_{NP}$ construction, s/he consequently may apply this schema on a ‘lower’ level, namely on the level of the definite and indefinite NP. S/He puts an element in front of the common noun simply to stick to the observed general preference of the speech community.

In general, my line of argumentation is based on the idea that the speaker is generally very sensitive about common nouns. It might seem unwarranted to argue that the speaker should abstract the $[[X]+[CN_{infl}]]_{NP}$ schema in the first place. After all, many one-word NPs exist which do not show a $[[X]+[CN_{infl}]]_{NP}$ preference. If we look back at Figure 27, we can see that most NPs are one-word NPs, because pronouns and proper nouns often head their own noun phrase. Why then should the speaker even notice a preferred schematic pattern $[[X]+[CN_{infl}]]_{NP}$ if such NPs are embedded in a vast amount of one-word NPs? Regarding this question, I believe in what might be called ‘the cognitive supremacy of the common noun’.

I argue that the class of common nouns has a cognitively dominant position because of its high frequency. For example, in the *Peterborough Chronicle* we find 6210 words tagged as common noun in a manuscript of 40,641 words. This is twice as much as the proper nouns in the text, as shown in Table 45.

Tab. 45: Noun classes in the PB and PA

	CN	PN	Pro
PB	6210	3019	2832
PA	2160	1847	849

Even if we add the number of pronouns to the number of proper nouns, common nouns are still the most frequent noun class. A similar situation can be found in the *Parker Chronicle* with 2160 common nouns in a text of 14,583 words. Here, the group of common nouns is still the most frequent one, although proper nouns are relatively frequent as well. I argue that this high token and type frequency of common nouns leads to their strong entrenchment which in return increases their cognitive accessibility. Additionally, several acquisition studies have shown that the common noun generally is a very prototypical category. For example, there is a clear predominance of common nouns in the early acquisition process (Benedict 1979; Hoff 2001; Clark 2003; also see Whaley 1997 for the common noun as a typological universal). This prototypical character also gives the common noun a salient status in psychological computation.

At the same time, I argue that speakers clearly differentiate between the sub-categories common noun, proper noun and pronoun among NP heads. NPs with no prehead element are indeed the most frequent ones in both chronicles because most of them are pronoun NPs, but I argue that the speaker does not take their behavior into account when it comes to determination patterns. The syntactic behavior of pronouns differs vastly from the syntactic behavior of nouns as, for example, modification is not possible (**the nice she*). Thus, I argue that the speaker does not directly link pattern preferences with pronoun usage to common noun usage. The structure of pronoun NPs does not play a role in the speaker's analogical reasoning when dealing with CNPs.

7.5.2 Processing efficiency and performance economy

The development of the articles might also be further supported by a general tendency to make on-line processing more efficient for the 'human processor' (i.e. the listener who receives linguistic input one by one in a parse string in real time). Here valuable research has been conducted by Hawkins, who has not only worked on definiteness and the English articles (1978, 1991) but who has also been shaping the theory of 'performance grammar', in which he points out that

grammars are profoundly shaped by performance and on-line processing preferences and by general principles of efficiency and complexity (2004, 2015).¹³³ Among other things, Hawkins argues that speakers strive for an increase in system-internal efficiency. To specify this line of argumentation, he proposes three major principles: *Minimize Domains*, *Minimize Forms* and *Maximize On-line Processing*. According to Hawkins those principles increase efficiency in different ways and can account for many aspects of grammaticalization (2015: 73–76).

The first principle, *Minimize Domains* (MiD) is defined as follows:

The human processor prefers to minimize the connected sequences of linguistic forms and their conventionally associated syntactic and semantic properties in which relations of combination and/ or dependency are processed. The degree of this preference is proportional to the number of relations whose domains can be minimized in competing sequences or structures, and to the extent of the minimization difference in each domain. (Hawkins 2004: 31)

In other words, efficiency is increased by minimizing the size of the syntactic domain (i.e. the sequences of linguistic forms and their conventionally associated properties) in which a given grammatical relation can be processed (Hawkins 2015: 11). For example, parsing the dependency and meaning of a lexical combination like *count + on* is more efficient if the two words occur next to each other (e.g. *count on my father in my college years*) than if they occur separated from each other (*count in my college years on my father*). This is the case because the combinatorial dependency in the first example can be parsed on the basis of only two words. Therefore, speakers strive to reduce domains, which will ultimately be reflected in the number of constituents intervening between *count* and *on*. MiD thus results in proximity effects and also offers a potential explanation for adjacency in syntax. Elements which conceptually belong together in time get attached closer to each other and sometimes are even stored as a single unit. MiD also implies that phrase dependents and their heads will not easily be split up (Hawkins 2004: 26).

The second principle, *Minimize Forms* (MiF) is defined in the following:

The human processor prefers to minimize the formal complexity of each linguistic form F (its phoneme, morpheme, word, or phrasal units) and the number of forms with unique

133 Hawkins draws his ideas on insights from psycholinguistic models of production (Levelt 1989) and comprehension (Fodor et al. 1974), connectionist insights (MacDonald et al. 1994; Elman et al. 1996) and functional ideas proposed by Givón (1978, 1995), Haiman (1983, 1998), Comrie (1989), Gell-Mann (1992), Sperber and Wilson (1995), Newmeyer (1998), Haspelmath (1999a) and Bybee and Hopper (2001).

conventionalized property assignments, thereby assigning more properties to fewer forms. These minimizations apply in proportion to the ease with which a given property P can be assigned in processing to a given F. (Hawkins 2004: 38)

Speakers also increase efficiency when they minimize the overt form of their linguistic entities (e.g. phonemes, morphemes,...) and when they minimize the number of form-meaning pairings which only have one unique property. Such a statement is, for example, inspired by the observable linguistic fact that the more common a word is, the shorter it is in general.¹³⁴ Any receptive or productive processing of linguistic items requires effort. If one reduces the units that have to be articulated and processed, this minimizes this effort (Hawkins 2004: 38). MiF is based on notions like “say as little as necessary” (Levinson 2000: 114; Haiman 1983; 1985, Grice’s 1975 ‘Quantity Maxime’) and has the aim to reduce forms to the minimum point at which communicative goals can still be met (Hawkins 2004: 27). MiF is a principle of least effort and is strongly influenced by frequency. The more often a linguistic form is produced the more it will get reduced (see Hawkins 2015: 15–28). At the same time, it is not efficient for a speaker to store hundreds of form-function pairings where you have a distinct form to express only one distinct function. Instead speakers prefer to give only very frequent concepts (Agenthood, Tense, assertive speech acts) distinct formal expressions (e.g. a specific affix; a specific unique word ordering), whereas less frequently expressed concepts are expressed through word and phrase combinations or via polysemous forms (Hawkins 2015: 17).

The third major principle is *Maximize Online-Processing Efficiency* (MaxOP). Efficiency is also increased by providing early access to as much of the syntactic and semantic representation as possible. This is being reached by arranging linguistic strings in such a way that on-line property assignment is maximized (Hawkins 2004: 9). The parser receives linguistic elements one after the other in a parse string. When doing so

[t]he human processor prefers to maximize the set of properties that are assignable to each item X as X is processed, thereby increasing $O(n\text{-line}) P(\text{property})$ to $U(\text{ltimate}) P(\text{property})$ ratios. The maximization difference between competing orders and structures will be a

134 Additionally, it can be observed that there is a preference for minimal expression (e.g. zero) in proportion to the frequency of occurrence and the degree of expectedness. For example, the nominative case is generally more frequent than the accusative case and singular is more frequent than plural. As a result, nominative and singular are more often expressed by zero forms or by shorter forms than accusative and plural (Hawkins 2015:16).

function of the number of properties that are unassigned or misassigned to X in a structure/sequence S, compared with the number in alternative. (Hawkins 2004: 51)

In other words, it is not efficient to delay the assignment of properties in the on-line parsing string. As speech is “a linear sequence of forms and properties, each of which contributes to the ultimate syntactic and semantic representation of the sentence in the string” (Hawkins 2004: 28), the speaker will always prefer early properties assignment, so that he can build his or her representations as early as possible. For example, the parser will prefer a clause where most properties are assigned already at the beginning of the clause. Compare: *John went in the late afternoon to London after a long siesta.* to *John went to London in the late afternoon after a long siesta.* In the first sentence, the second PP daughter of the VP (*to London*) is delayed. In the second sentence, the parser gets this information earlier (Hawkins 2004: 29).¹³⁵

One can also simplify MiF and MaxOP with the slogans ‘Express the most with the least’ and ‘Express it earliest’. The *Minimize Forms* principle follows from the former, while *Maximize On-Line Processing* follows from the latter (Hawkins 2004: 25). The principles interact and the results of this interaction are manifold. It would go beyond the scope of this section to elaborate on those interactions in detail but it can be concluded that generally a language will develop in a certain direction because the human parser compares alternative constructions for expressing the same proposition and will favor the one that is most efficient as it has the lowest complexity in on-line processing. A construction will be favored if it provides the earliest access to the most important properties of the communicated proposition. Low overall complexity is reached when the speaker has to parse “fewer forms and properties and smaller domains [...] while still communicating the same proposition” (Hawkins 2004: 25).¹³⁶

135 The effect can also be observed in an example with a noun clause and the presence and absence of an explicit complementizer. Compare *I believe the boy knows the answer* to *I believe that the boy knows the answer*. A verb like *believe* allows a complementation pattern which the parser can immediately identify when s/he hears *that*. In the absence of *that* the parser will need to wait until the end of the clause until s/he can correctly parse the intended meaning of it. This at the same time can lead to some kind of “misassignment” (Hawkins 2004: 51). *Believe* can also take a direct object. This means that without the overt *that*, it can be the case that the parser interprets *the boy* as a direct object although the speaker did not intend this. Hawkins claims that grammars strive to avoid such misassignments.

136 Hawkins ideas on ‘natural’ economic principles are not new. However, performance economy is not the only factor that is conventionalized in syntactic structure. A language also strives for explicitness and communicative creativity, which are competing motivations. A wish for clarity or extravagance will lead to other developments than striving for ease (Haspelmath 1999a,b).

Hawkins applies his theorizing to the grammaticalization of the definite article, but his reasoning can easily be extended to the indefinite article as well (see section 7.3). Article development follows from the MaxOP principle. Hawkins states that when a speaker, for example, hears the NP *the boy* as the first two words in an utterance, s/he recognizes the categories determiner and noun, identifies a noun phrase construction and assigns “lexical-semantic content to *boy* and a uniqueness semantics to the definite determiner” (Hawkins 2004: 20).

In this early position any article can act as an unambiguous signal for a construction in comprehension as well as production models. Hawkins thus predicts a syntactic processing function of developing and expanding articles, namely that the articles construct a (case-marked) noun phrase (Hawkins 2004: 87). This function also helps to understand why articles are very productive in NPs with modifying adjectives or relative clauses whose “attachment to NPs is not guaranteed by their own projection properties” (Hawkins 2004: 90). In those NPs the article acts as a nominalizer. For example, in an NP like *the rich* the article is obligatory because it helps the parser to interpret *rich* as a noun not as an attributive adjective. Also, with ambiguous nouns and verbs, the determinative helps to disambiguate a clause like *they want to film* from *they want the film* (Hawkins 2004: 90–91).

In short, to attach articles before a lexical item is efficient because otherwise important aspects of syntactic and semantic interpretation would be delayed (Hawkins 2004: 89). This argument is supported by typological research, which shows that there is a strong tendency for free form articles to occur in initial position in the noun phrase, independently of the general constituent order of the respective language (Lyons 1999: 4).

At the same time, article development also shows characteristics which follow from MiF. When the articles grammaticalize more and more, thereby extending their pragmatic and semantic range, they become more productive in the syntactic rules of the grammar (hence more frequent). In this diachronic process, the demonstrative and the numeral lose phonological substance. For example, English *the* has more reduced segments than the demonstrative: CV rather than CVC, a schwa vowel and reduced stress. This is a consequence of MiF. Finally, also MiD plays a role in article development. *Minimize Domains* is a principle which predicts that elements which belong together conceptually will be positioned closer to each other in time. This explains why loose discourse sequences often become

For a discussion of such competing preferences see Dressler’s notion of ‘natural principles in conflict’ (Dressler 1977, Dressler et al. 1987) or the idea of ‘competing motivations’ (Haiman 1983; DuBois 1985; Croft 1990) and Langacker’s ‘optimality’ (1977).

positionally fixed in time and why – as a result – phrase structure (e.g. noun phrase structures) emerges and condenses in many languages (Givón 1979: 33). This also explains why the articles are positioned quite close to the head noun in English.

In his writings, Hawkins remarks that “[t]here is no compelling semantic/pragmatic reason why the definite article should emerge out of a demonstrative to express meanings that are perfectly expressible in languages without definite articles” (Hawkins 2004: 92). He concludes that the motivation for the change is not primarily semantic or pragmatic, but “there are some compelling reasons, involving the processing of grammar, that can motivate an expansion of the determiner category, and that can motivate it in language types and at historical stages at which it appears to happen” (Hawkins 2004: 84).

This relates back to the functionalist motivations for language change which were presented in section 3.2.2. Several scholars highlight that grammaticalization is often motivated by speaker-hearer interaction and the improvement of communicative efficiency (improving informativeness, expressivity, etc.) (e.g. Heine, Claudi and Hünemeyer 1991; Hopper and Traugott 2003). Indeed, it is often the case that speakers change their linguistic code to make it communicatively more functional. Also in the specific case of article development, it can be argued that the new strategy to mark definiteness or indefiniteness overtly all the time increases communicative efficiency by reducing difficult inferencing from context. Without an obligatory article, the speaker often has to infer from the context whether the situation is definite or indefinite. With the development of obligatory (in)definiteness marking, this information is encoded overtly. This ‘codification process’ helps the speaker to get his/her semantic and communicative intentions across more easily. So I do not agree with Hawkins’ statement that no pragmatic reasons for article development can be found. However, as argued in this book, also systemic, cognitive factors play a role.

7.6 Concluding remarks: changing strategies for (in)definiteness marking in the history of English

To conclude this chapter, I would like to once again comment on the changing strategies of definiteness marking in English and the reasons why speakers shifted from no marking to overt marking. I believe that English in the last thousand years has been undergoing a process of ‘obligatorification’ and ‘codification’ of (in)definiteness marking. We could also call this a unidirectional cline towards the ‘overtification’ of (in)definiteness marking. Throughout the history of English we can observe the following strategies for the marking of definiteness:

Tab. 46: Changing strategies for indefiniteness marking from Old English to Present Day English

	referential NPs		non-referential NPs			
	overt obligatory definiteness marking		overt obligatory indefiniteness marking			
	singular	plural/ mass	singular	plural/ mass	singular	plural
early Old English	-	-	-	-	-	-
middle Old English	+	+	-	-	-	-
late OE/ early ME	+	+	+	-	-	-
Modern English	+	+	+	(+)/-	-	-
(future develop- ments)	+	+	+	+	-	-

In West Germanic and early Old English definiteness and indefiniteness were not marked obligatorily. In referential NPs the common noun did not need to combine with a determinative (a grounding element). Broadly speaking, this means that referential NPs were constructed in exactly the same way as non-referential NPs. *I see abbot in the cloisters* (referential) vs. *He was elected abbot* (non-referential). As was shown, many CNs in definite contexts collocate with a demonstrative or possessive pronoun but the marking of definiteness happens indirectly and is optional. This stage puts a heavy decoding pressure on the listener. Nothing in the input overtly helps the listener to decode the message. The speaker has to guess from context whether the noun phrase is referential or non-referential or whether the referent is conceptually definite or indefinite. That is why at one point the speakers – influenced by the discussed frequency and analogy effects – change their marking strategy. Between early and late Old English definiteness marking becomes obligatory in all referential cases, in the sense that speakers start to mark singular, plural count and mass nouns obligatorily. To ground the referent by an overt element and to code intertextual (anaphoric) relations overtly is very useful for the listener.

At this point in time, indefiniteness marking is not obligatory yet. Some scholars might argue that speakers employ a zero article, but I simply argue that the determination slot is left empty. What helps speakers to interpret a message at this point is the following opposition: definiteness is marked overtly; indefiniteness is indicated by leaving the slot empty. Many languages opt for such a

marking/non-marking strategy. In that sense, it can be considered a stable strategy. However, in English (as in other languages like German and French) the situation changed. Speakers shifted to the overt marking of indefiniteness as well. What made speakers deviate from the presented stable strategy?

The ‘problem’ with the indefiniteness marking strategy in late Old English is that indefinite, referential contexts can easily be mistaken for non-referential contexts. This is detrimental as it puts a heavy decoding pressure on the parser. Additionally, the preferred pattern preference of having one element in front of a common noun exerts pressure once more and makes speakers change their marking strategy.

During early Middle English they start to mark indefiniteness overtly and obligatorily as well. Interestingly, at this point in time, this is only the case with singular nouns. As can be seen in Table 47, plural and mass nouns can remain unmarked. This is a hybrid stage which English is currently in. Interestingly, speakers accept that indefiniteness has to be marked with singular nouns but can remain unmarked with plural and mass nouns. But is this really the case? It is well known that nowadays *some* is very often employed as an indefinite article for plural count and mass nouns. In that sense the grammaticalization of the [sum]_{QUANT} construction into an article completed the article paradigm:

Tab. 47: Article paradigm in Modern English

	DEFINITE		INDEFINITE	
	Count	Non-count	Count	Non-count
SINGULAR	the book	the ink	a book	some ink
PLURAL	the books		some books	

A/an marks indefiniteness with singular count nouns and *some* fulfills the function of indefinite article with plural count and mass nouns. Still, for plural count and mass nouns both strategies are currently acceptable (grammatical). However, I hypothesize that this stage is only an intermediate stage of mixed strategies and is cognitively disfavored. I assume that in the future, the English constructicon will change once again in favor of obligatory marking in all cases, in the sense that the [[CN_{plural/mass,inf}]]_{NP_{indef}} construction will dissolve from the network. Why do I predict this development? If speakers adjust their system as predicted, we end up with a linguistic strategy of (in)definiteness marking which

clearly distinguishes between referential and non-referential NPs. This hypothesis will have to be tested in the future. However, any empirical investigation would go beyond the scope of this book.

8 Conclusion

Language is a complex adaptive system (CAS; Beckner et al., 2009) where language structure, acquisition, processing, and change are inextricably intertwined in rich, complex, and dynamic ways. Language and usage are like the shoreline and the sea.

(Ellis, Römer and O'Donnell 2016: 27)

In this book I have presented a usage-based, cognitive, constructional perspective on the emergence of the English article system. In current comprehensive descriptions of English grammar the articles *the* and *a/an* are treated as the most prototypical members of the class of determinatives and as important functional elements of the English noun phrase. In Modern English, where the overt marking of definite and indefinite reference is obligatory (with the exception of plural and mass nouns), the articles are the default constructions to code this grammatical notion.

One of the most interesting aspects of the English articles in particular is their rather late and consecutive diachronic development. Typological facts illustrate that article development is not frequent among the languages of the world, and the birth of this grammatical category in English has even been called a “historical accident” (McColl Millar 2000b: 275) which took place under “obscure conditions” (Christophersen 1939: 18). Scholars seem to agree that whereas West Germanic had no articles as such, the OE simple demonstrative *se* grammaticalized and developed into the definite article and the numeral *ān* grammaticalized into the indefinite article with some temporal delay during early Middle English. What scholars do not agree on is why the category developed and whether the form *se* should already be analyzed as an ‘article’ in early Old English (after 890 AD).

All these facts and open questions have made it especially interesting to revisit category emergence and explore the phenomenon from a diachronic constructionalist perspective. With regard to the highly debated “vexed question” (Quirk and Wrenn 1958: 70) WHEN the article category emerged in English, it has hopefully become clear in the course of this book that the answer to this question heavily depends on how one conceptualizes linguistic change in general, how one defines articlehood, and what grammatical features one believes to be affected by the postulated change.

The questions which seem even more interesting when discussing language change are HOW and WHY some changes are set in motion in one language at a particular time, but not in another language. For a scientific community seeking ‘the truth’, it is simply not enough to label a certain linguistic phenomenon. To observe a diachronic process and state that, for example, it is a case of grammat-

icalization or constructionalization, does not explain what has triggered the constructionalization of the particular element. Thus, one specific goal of this book has been to explore and discuss the causal triggers which led to the development of the articles. In contrast to previous studies, I decided to focus on the cognitive mechanisms which have been responsible. In order to model the details of the ongoing changes in a precise manner, I use a constructionalist model and annotation of grammar.

When sifting through the literature on the development of the articles, it can be observed that not many studies test their assumptions against large text samples; a lack of large-scale corpus studies on the topic can be detected. By analyzing a large data set (using a computer-accessible corpus), I have tried to fill this empirical gap by conducting an extensive qualitative and quantitative analysis of NP types and nominal determination patterns in thirteen OE prose texts in the *YCOE*. In the following, I will once again present the most important ideas and findings of this book (section 8.1). I will close this monograph with a discussion of some open theoretical questions and limitations and potential directions for further research (section 8.2).

8.1 Summary

To answer the question why the article category developed in English, several explanations on the article's emergence were discussed in the first part of this book. First, traditional views on the development of the articles were presented. Especially scholars at the turn of the last century dealt with the phenomenon and concluded that while the indefinite article did not exist in Old English yet, the definite article already developed as a necessary tool due to the decline of the inflectional system and the general shift of English from a synthetic to an analytic language. Although their methodology is rather weak and their conclusions are of a rather descriptive nature, their work has been mentioned because it represents the idea that the article already existed from 890 onwards. I also discussed the hypothesis that article emergence is linked to changes in the adjective paradigm (especially the loss of the weak/strong distinction). Although my analysis of adjectival patterns confirmed that in definite NPs the weak adjective is used more or less consistently in combination with *se*, I argued that it does not seem likely that the article developed only to disambiguate case and gender. Also language contact was presented as a potential trigger and external cause (Scandinavian influence from the North) which may have been responsible for the observable demonstrative split in the nominal system.

Functionalist and formalist accounts of the articles' development were presented as well. Whereas many functionalist publications treat the development as a case of grammaticalization, which was primarily triggered by semantic-pragmatic factors, the formalist framework argues that the observable change is an example of reanalysis towards or within DP structure. It is indeed possible to apply Lehmann's grammaticalization parameters successfully when tracing the developmental steps of *se* and *ān*. Additionally, functional and discourse-pragmatic reasons definitely play a role in the category's development. Generative proposals were of interest because their formalization reveals a clear systemic difference between grammars which have and which do not have a determiner. In contrast to demonstratives and numerals (which are positioned in Spec position), articles take the Head position further up in the generative syntactic X-bar tree. This is a systemic difference which is often overlooked in functionalist models.

Nevertheless – as this book has tried to reveal – some questions are not answered in the literature on the topic. Although most of the presented accounts provide useful schemes that successfully describe aspects of the articles' development, the given explanations are insufficient because they do not really concentrate on the causal triggers for the change. I have argued that reanalysis and grammaticalization are epiphenomenal descriptive terms rather than 'real' causal mechanisms and thus should be broken down into more basic mechanisms of language change. As a reaction to those perceived shortcomings, a usage-based, cognitive, constructionalist explanation was proposed.

8.1.1 Reconceptualizing grammaticalization as grammatical constructionalization

Above all other things, this book is based on the idea that (a) grammaticalization should be reconceptualized as 'grammatical constructionalization' and (b) that a proper understanding of grammatical constructionalization has to take into account that abstract schematic complex constructions can be driving forces of linguistic change in the sense that they can exert pressure on other existing constructions or even trigger the emergence of new constructions.

Article emergence has been conceptualized as a 5 step process which was driven by lexically underspecified, schematic constructions. I have argued that what triggers the constructionalization of the articles is the prior emergence of various schematic, more complex constructions with a determination slot:

Step 1: constructionalization of an abstract schema for definite NPs with a determination slot:

{definite entity}
[[DET _{def,infl}] DETERMINATION+[CN _{infl}] HEAD] NP _{def}

Step 2: recruitment of a default slotfiller = constructionalization of [se_{infl}]_{ART}:

M:	{definiteness marker}
↕	
F:	[se _{infl}] _{ART}

Step 3: constructionalization of an abstract schema for indefinite NPs with a singular CN as head:

{indefinite single entity}
[[DET _{indef,infl}] DETERMINATION+[CN _{count,sg,infl}] HEAD] NP _{indef}

Step 4: recruitment of a default slotfiller = constructionalization of [ān_{infl}]_{ART}:

M:	{indefiniteness marker}
↕	
F:	[ān _{infl}] _{ART}

Step 5: constructionalization of an abstract schema for referential NPs with a determination slot; constructionalization of an abstract schema for indefinite NPs with plural count and mass noun heads; the recruitment of another slotfiller for those plural NPs (i.e. extension of the article category), which corresponds to the grammatical constructionalization of [sum_{infl}]_{ART}:

{referential NP}
[[DET] DETERMINATION+[CN _{infl}] HEAD] NP _{ref}

{indefinite entities}
[[DET _{indef,infl}] DETERMINATION+[CN _{pl,infl}] HEAD] NP _{indef}

M:	{indefiniteness marker}
↕	
F:	[sum _{infl}] _{ART}

The emergence of all these schematic constructions is seen as a necessary precondition and the main trigger for the grammaticalization of the demonstrative and the numeral. The fact that the determination slot developed and became functional leads to the recruitment of default slotfillers (=articles). It is this employment as obligatory slotfillers which triggers the grammaticalization of the demonstrative and the numeral.

This relates to the important observation that linguistic elements often do not grammaticalize on their own but in larger constructions. For example, *se* only starts to grammaticalize in its role as a dependent prehead element. It undergoes grammaticalization but inside the more abstract NP construction with *se* (now taking up the role of an article) being a default filler of it. The demonstrative – from that perspective – only grammaticalizes in the context of the $[[\text{DET}_{\text{def,inf}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NP}_{\text{def}}}$ construction. In that sense an abstract syntactic construction is thus a “grammatical primitive [...] [which can be] both the source and outcome of grammaticalization” (Traugott and Trousdale 2010: 13).

I also introduced a terminological distinction between ‘constructionalization *novo loco*’ and ‘constructionalization *in situ*’ or ‘constructional substitution *in situ*’. In general, I argue that linguistic change comes about

- via the local substitution of existing nodes (‘constructional substitution *in situ*’/‘constructionalization *in situ*’)
- via the addition of completely new nodes (‘constructionalization *novo loco*’)
- via the rearrangement of node external links between constructions

The term ‘constructionalization *novo loco*’ has been defined as ‘the emergence of a new form-meaning pairing which previously did not exist in the construction and which is ADDED as a new node to the network’. This definition includes Traugott and Trousdale’s special cases of form_{new} - $\text{meaning}_{\text{new}}$ pairings but also cases where a new sign is established that only differs in form or function from its source. The important characteristic feature in my definition is that the newly emerged construction represents a new node in the network which is established and will have to be linked to existing nodes. Crucially, it does not replace an existing node. For example, the newly emerged definite article does not replace its source the demonstrative. The demonstrative $[\text{se}_{\text{infl}}]_{\text{DEM}}$ construction remains in its position in the network. However, the newly emerged article $[\text{se}_{\text{infl}}]_{\text{ART}}$ (for a long time sharing the same formal shape with the demonstrative) is added as a new node somewhere else in the network.

In contrast, when the demonstrative $[\text{se}_{\text{infl}}]_{\text{DEM}}$ extends its meaning/function in the sense that speakers do not only use it when they want to express spatial

deixis but also for intertextual deixis,¹³⁷ no additional node is created in a locally different position but the change remains *local* in the sense that the already existing demonstrative $[se_{infl}]_{DEM}$ node is affected. Some people would say the linguistic sign is ‘changed’ in a one-sided manner (on its function side), some people would say it is ‘substituted’ by a different construction. I call this local node adjustment ‘constructional substitution *in situ*’, which from a certain point of view also includes constructionalization.

The development of the two articles is also a case of ‘grammatical constructionalization *novo loco*’. Two new atomic, specific constructions emerge. The two new constructions are more procedural and more schematic than their source constructions $[\tilde{an}_{infl}]_{NUM}$ and $[se_{infl}]_{DEM}$, which is a defining feature of ‘grammatical constructionalization’.

8.1.2 Constructionalization as a system-driven change triggered by complex analogy and frequency effects

A second line of reasoning presented in this book has been that complex analogy and frequency effects are the main motivating forces behind the observed constructionalizations. I have argued that mostly cognitive ‘system-internal’ factors (e.g. pattern preferences, structural regularization as a principle of economy) are responsible for the grammatical constructionalizations. Generally, in grammaticalization studies semantic or pragmatic change is said to often lead to structural change. However, as Mithun (2003), Hawkins (2004) and Fischer (2007) have pointed out, it is not always the case that changes in grammar are only driven by discourse-pragmatic needs. “The formal similarity of patterns and the adjacency (contiguity) of signs are [...] an important formal force in grammaticalization” (Fischer 2007: 122).

Analogy has been conceptualized in a wider sense as ‘rule generalization/extension’ at a higher meta-linguistic level and has been treated as a “psychologically real phenomenon which has causal efficiency [...] in language” (Itkonen 2005: xii). Pattern recognition and the analogical transfer of formal patterns from one domain to another is seen as one of the main reasons for the observable changes. Influenced by the high frequency of constructions like $[[DEM_{infl}] + [CN_{infl}]]_{NPdef}$ or $[[POSS_{infl}] + [CN_{infl}]]_{NPdef}$, the learner analogically abstracts a pattern preference

137 Presumably sometime during the shift from West Germanic to early Old English.

for $[[\text{DET}_{\text{def,infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ which finally licenses the conceptualization of a specific local determination slot and the cognitive entrenchment of the $[[\text{DET}_{\text{def,infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NPdef}}$ construction.

A central characteristic which has emerged out of the present analysis is that in Old English the overt marking of definite reference is already very frequent and the demonstrative is the most frequently used element to do so. Thus, when the speakers analyze their OE input, they draw the following analogies: first, the speakers assign the same structure, namely $[[\text{DET}_{\text{def,infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$, to constructions like $[[\text{DEM}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$ or $[[\text{POSS}_{\text{infl}}] + [\text{CN}_{\text{infl}}]]_{\text{NPdef}}$. At this Stage, (at t_1), definiteness marking is not yet obligatory. In a second step, however, some speakers extend this schema to the semantically definite but syntactically bare CN cases (being the less frequent and thus less prototypical). This leads to an increase in frequency of the pattern which supports the conceptualization of a schematic construction on a more abstract level in the network. This construction has a determination slot that has to be filled obligatorily. The existence of such a construction in turn led to the recruitment of *[se]* as a default filler.

The constructionalization of all the constructions mentioned above is mostly influenced by the high frequency and strong entrenchment of related NP constructs in Old English and the speaker's ability to perform analogical reasoning. The overall shape of the synchronic system leads to the formation of this new productive grammatical schema.

It has also been argued that the cognitive entrenchment of the $[[\text{DET}_{\text{def,infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{infl}}]_{\text{HEAD}}]_{\text{NPdef}}$ and the $[[\text{DET}_{\text{indef,infl}}]_{\text{DETERMINATION}} + [\text{CN}_{\text{count,sg,infl}}]_{\text{HEAD}}]_{\text{NPindef}}$ construction is not only sanctioned by pattern preferences in the definite NP, but that a constructional preference for $[[X] + [\text{CN}_{\text{infl}}]]_{\text{NP}}$ on the level of the general NP (with definite and indefinite reference) also exerts an influence on the level of the definite NP. In Old English most CNPs follow an $[[X] + [\text{CN}_{\text{infl}}]]_{\text{NP}}$ schema with one prehead element before the head (including all types of common noun phrases).¹³⁸ In other words, the most frequent common noun pattern is the $[[X] + [\text{CN}_{\text{infl}}]]_{\text{NP}}$ construction with only one prehead element preceding the common noun. This prototypical construction, which is far more frequent than the 'bare' $[[\text{CN}_{\text{infl}}]]_{\text{NP}}$ construction (i.e. the common noun occurs without any prehead elements), may have also had a subtle but underestimated impact on the (emerging) structures on the lower definite and indefinite NP level. In other words, a more abstract construction exerts influence on a more concrete (taxonomically related) construction. Ultimately, we encounter two frequency effects on two different levels. The

138 i.e. indefinite, definite, referential or non-referential.

first frequency effect takes place on the level of the definite NP, the second frequency effect can be found on the level of the general NP.

8.1.3 The cognitive cycle of constructionalization

To improve our understanding of constructionalization, a cognitive cycle of constructionalization has been postulated which aims to highlight the cognitive processes which are at work in the constructionalization process. The cycle is repeated in Figure 29 for the reader’s convenience.

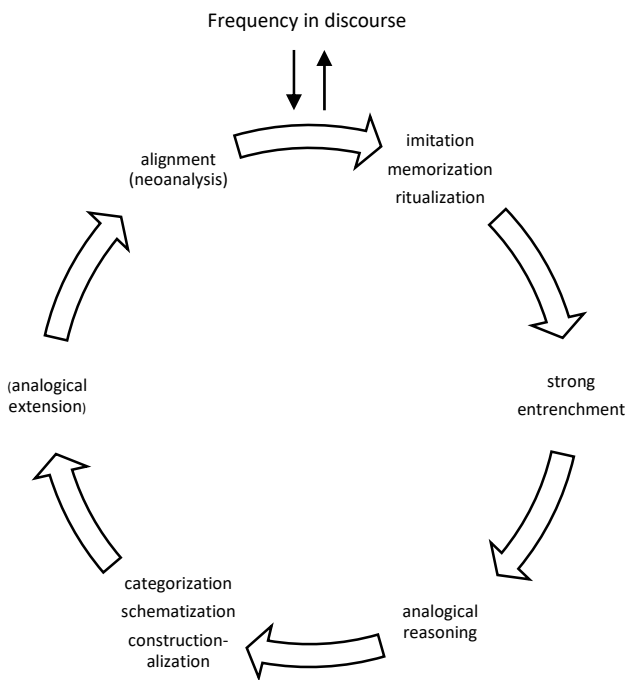


Fig. 29 Cognitive cycle of speaker-internal processes in constructionalization

The postulated cycle does not concentrate on the changing linguistic features of particular grams in grammaticalization/grammatical constructionalization but on the cognitive processes that go on in the speaker’s mind. Analogical reasoning is seen as an internal, cognitive process, something that affects and shapes a

speaker's mental setup. The cyclic process (including memorization, entrenchment and categorization/schematization) leads to constructionalization and an increase in the frequency of a certain form. Thus the frequency of certain forms is at the same time a speaker-external causal mechanism and a result of speaker-internal behavior.

8.1.4 Overt definiteness marking as a means to increase efficiency

Another point that has been made was that the articles constructionalize because the overt marking of definiteness and indefiniteness becomes obligatory. This motivates the speaker to employ default markers in all those cases where definiteness is not yet expressed indirectly by another determinative (e.g. demonstrative, possessive pronoun, etc.). This line of reasoning directly leads to the question why (in)definiteness marking becomes obligatory and why the speaker extends the demonstrative's and the numeral's usage to all those 'unmarked' definite and indefinite NP cases which still used to occur bare in early Old English. Here, it was reasoned that marking of definite and indefinite reference obligatorily by employing an overt functional element in the prehead can be interpreted as an example of structural and cognitive simplification as a means to increase regularity and to make on-line processing more efficient.

First, it was assumed that it is more difficult for a speaker to establish a detailed hypothesis when to mark or not mark definiteness overtly, than to base linguistic production on a much 'simpler rule', namely marking definiteness all of the time. A variable (conditioned) rule is more complex than an unconditioned rule which states: 'always mark definiteness overtly with common nouns' because here the speaker does not have to hypothesize about which context demands overt marking or not. Thus, the obligatorification process is a matter of systemic simplification.

Additionally, it was suggested that an obligatory marking rule is able to establish itself in a population of learners because the behavior (linguistic output) it produces can also be produced by the carriers of the optional marking rule. It will not be recognized as unfamiliar. Therefore, the spread of obligatory marking is likely, since bearers of the optional-marking rule are unable to recognize anything alien in the speech output produced on the basis of the obligatory marking system, whereas bearers of the new system would perceive output of the pre-change system as ungrammatical. All this leads to an irreversibly one-sided accommodation pressure towards obligatory marking.

It was also proposed that the articles' development increases on-line processing efficiency. Based on Hawkins' 'Performance-Grammar Correspondence Hypothesis' (2004), which argues that grammars are structured by general principles of efficiency and complexity, it has been assumed that many aspects of grammaticalization and developments in morphosyntax can be accounted for if one takes into account the speaker's striving for on-line processing efficiency (Hawkins 2004: 13). Hawkins' *Maximize On-line Processing* principle predicts that it is highly efficient to attach an article before the lexical item because otherwise important aspects of syntactic and semantic interpretation would be delayed (Hawkins 2004: 89). As a speech string is a linear sequence, it is not efficient "to delay the assignment of properties in the on-line parsing string" (Hawkins 2004: 28). In the case of English, the articles help the listener to identify a referential noun phrase. The speakers not only have a processing advantage but also a functional, discourse-pragmatic advantage. The articles act as an unambiguous signal for referentiality and nominality. At the same time they successfully ground the nominal element in discourse.

8.1.5 Emergence of determination slot and the definite article between o.2 and o.3

In order to shed light on the question as to when the articles developed, several case studies have been set up. In those studies, the semantic and syntactic behavior of the demonstrative *se* and the numeral *ān* have been analyzed thoroughly. In one case study, I investigated the development of *se* diachronically. When splitting up the *Peterborough* and the *Parker Chronicle* into periods, it can be observed that the token frequency of $[[se_{infl}]+[CN_{infl}]]_{NP_{def}}$ drastically increases in both chronicles. This was interpreted as strong evidence for the fact that the form *se* takes up article function from early Old English onwards. It was also shown that in Old English $[\bar{a}n]$ did not function as an article yet. To investigate the change from demonstrative/numeral to article qualitatively, seven criteria for articlehood¹³⁹ were set up:

1. NO INDEPENDENCE: a prehead dependent which cannot occur independently of its head is likely to be an article

¹³⁹ Generally, it was suggested that articlehood is an 'umbrella term' for an element which fulfills several different sub-conditions at the same time (i.e. shows a certain semantic and syntactic behavior). One criterion on its own does not constitute articlehood, only when several criteria are met, it makes sense to speak of a definite article.

2. NO PREDICATION: a prehead dependent which cannot function as a predicative complement is likely to be an article
3. NO CO-OCCURRENCE: a prehead dependent which cannot co-occur with itself or other determinatives is likely to be an article
4. RELATIVE POSITION: a prehead dependent which occurs before any quantifier or modifier is likely to be an article
5. OBLIGATORINESS: a prehead dependent which is an obligatory default marker to indicate (in)definiteness is likely to be an article
6. EXCLUSIVENESS: a prehead dependent which exclusively expresses (in)definiteness is likely to be an article
7. SYNTACTIC MOTIVATION ONLY: a prehead dependent which is exclusively syntactically motivated is likely to be an article

These criteria are based on PDE usage where the definite article meets all of them.

When applying these criteria, some of them have not led to conclusive results, or their application has turned out to be problematic. For example, the EXCLUSIVENESS criterion could not be applied to the OE language stage at all. The criteria NO PREDICATION and NO INDEPENDENCE could be applied but the results have not revealed much about *se* and *ān* in their function as prehead determinatives. In the end, only three criteria have turned out to be helpful for investigating the role of *se* and *ān* in the OE prehead. Those were RELATIVE POSITION, NO CO-OCCURRENCE and OBLIGATORINESS. Interestingly, those criteria are directly linked to the existence of a determination slot.

Based on the results for all three criteria, it has been concluded that the speakers of early Old English already used a grammatical system in which an abstract construction with a determination slot was implemented for definite NPs. Already in early Old English it became the 'rule' to mark definiteness obligatorily by filling this positional slot. As soon as a determination slot developed, the definite article constructionalizes. As I have concluded, the constructionalization of the new abstract complex NP schema takes place between early and middle Old English, it seems reasonable to argue that the demonstrative also took up article function in this period.

The fact that exceptional patterns still existed (e.g. co-occurrence of DEM+POSS, POSS+DEM, bare definite NPs,...) shows that the spread of a new construction in the speaker population is a gradual process. Obviously, it additionally took some time until the system reached a point where definiteness marking got extended to all the cases that we know of today. For example, the definite article expanded in its range of application to generics or specifics only later.

The general difficulty to apply the set up criteria underlines what scholars have repeatedly stated about gradualness, the fuzziness of categories and the inability to capture linguistic reality by Aristotelian categorization (Aarts 2004, 2007a,b; Denison 2006; Traugott and Trousdale 2010). Category membership is gradient. The notion of gradience can be understood much better if one takes a diachronic perspective and understands that language is constantly changing. When an element grammaticalizes, it may change its category membership. In time a form can lose old and take up new characteristic features. Thus, it is possible that an element – from a synchronic perspective – does not fulfill all ‘necessary’ criteria at a certain time and must be considered as a non-prototypical but valid member of the category, and may meet more and more criteria in due course. Additionally, the number of the overall members of a certain category can increase or decrease diachronically. This, in synchrony, explains why some elements are more prototypical members of a class, while others are less prototypical and cases which are hard to assign to one or the other category. In the end, it has to be concluded that linguistic behavior at one stage may not be analyzable with tools that have been set up for analyzing linguistic behavior at an earlier stage. Nevertheless, I still believe in the general usefulness of categorization in synchronic grammar description. However, the important point is to find the right criteria which really help to demarcate a category.

8.2 Limitations, implications and directions for future research

Having summarized the main findings of the book, this final section will address some theoretical implications and potential directions for future research. Several important issues could not be dealt with in this book. While my analysis first and foremost concentrated on simple definite NP patterns, more complex NPs were not investigated. For example, the OBLIGATORINESS criterion has only been checked in one-word NPs. It will therefore be necessary to also investigate ‘heavier’ NPs with posthead complementation (e.g. relative clauses, etc.). Additionally, it would have gone beyond the scope of this book to look at the development of the articles in other languages. It has never been my intention to set up criteria which are universal and which can thus be applied to other languages. However, as a next step, it would be interesting to compare article development in other languages, and check whether it may also be interpreted as a constructionally driven change.

Many other questions remain. One of them is why one cannot observe the frequent use of an article before proper nouns in English. Why does the assumed

preference for obligatory definiteness marking not seem to count in the case of proper nouns? As could be seen, such a structure was possible but not frequent in Old English. However, it decreased. In Present Day English, **I like the Susi* is considered grammatically incorrect but such structures can be found in many dialects of Italian or German, e.g. *Ich mag die Eva* [*I like the Eva*] (Austrian German). As a possible answer I suggested that proper nouns are different from common nouns. As the proper noun generally has a “unique denotation” (Quirk et al. 1985[1995]: 288), this semantic feature seems to block the use of an additional marker. A constraint for obligatory definiteness marking with this subcategory exists. A related question is why speakers so far have resisted to consistently mark CNPs with plural and mass nouns? More research is necessary to answer these questions.

Additionally, some claims and hypotheses made in this book (e.g. increased processing efficiency via overt definiteness marking) cannot be verified with a corpus-based methodology alone, and can only be corroborated via experimental psychological or neurological research. I have not conducted any psychological experiments for this book, but am aware that this should be the next step on the agenda.

When sketching the networks and constructions in chapter 7, several other questions have arisen in the process. Modelling linguistic knowledge and language change in Construction Grammar is a rather young enterprise and the following questions have definitely not been answered sufficiently yet:

- Which inheritance model should be favored in a truly usage-based cognitive model, in which learners construct the network in a redundant, bottom-up fashion (during their language acquisition process) but in which, after successful entrenchment, linguistic information is supposed to be inherited top-down?
- Should sketches of constructional families be based on form, on function or on both?
- How should the (changing) vertical and horizontal relations between constructions be visualized?
- In a model that allows for polysemy, when is it feasible to postulate a separate new node in the network?
- Is it cognitively realistic and even necessary to assume the existence of extremely abstract schemas high up in the network (e.g. a schema for referential NPs or a general word order schema inside the NP)? Which semantic meaning side do we then postulate for such constructions?

- Speakers have knowledge about which constructions can function as slot-fillers in larger, more complex constructions (e.g. the articles are used as slot-fillers in the determination slot). Where and how is this ‘syntactic’ knowledge stored?
- Some constructions are members of a ‘syntactic’ paradigm (e.g. OE *se* is masculine, nominative singular). How and where is this paradigmatic distributional knowledge stored?
- Can Diachronic Construction Grammar do without any notational formalism? If not, how should/could a (language-specific) annotation look like? How much formalism should we aim for in cognitive, usage-based synchronic and diachronic work?

I believe it is necessary to especially tackle these questions in the near future in order to arrive at an advanced version of Cognitive (Diachronic) Construction Grammar which – as a model or framework – can successfully be applied by many interested scholars and students to analyze different linguistic phenomena in different languages.

Finally, I would like to stress once more that the ideas presented in this book are based on evidence which comes from written prose texts, not from poetry or conversational data. Also note that my conclusions in this study are based on a limited set of data. It may be the case that by looking at even more texts or other genres, the outcome may have been different. In conclusion, I hope that the present study has succeeded to show that handbook statements should not be taken for granted, that the formal and functional diachronic development of linguistic forms and constructions is influenced by the links to other constructions, and that analogy and frequency have been underestimated as driving forces of linguistic change.

9 Appendix: manuscript and corpus information

This appendix provides some further information on the investigated manuscripts. All the texts are available in the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* or *York Corpus of Old English*¹⁴⁰, which is part of the *English parsed corpora series*¹⁴¹ and was compiled by Ann Taylor, Anthony Warner, Susan Pintzuk and Frank Beths at the Department of Language and Linguistic Science, University of York. The *YCOE* is a 1.5 million word, syntactically-annotated corpus with the main goal “to facilitate automatic searching for syntactic constructions” (Taylor 2003).¹⁴²

The corpus (i.e. the annotated text files) is distributed by the *Oxford Text Archive*¹⁴³ free of charge for non-commercial use. Regarding annotation, it follows its sister corpora the *Penn-Helsinki Parsed Corpus of Middle English II (PPCME2)*¹⁴⁴ and the *York-Helsinki Parsed Corpus of Old English Poetry*¹⁴⁵ and can be accessed by the same search engine, *CorpusSearch*¹⁴⁶ (Taylor 2003). However, due to the inflected nature of Old English there are some essential differences in annotation between the *YCOE* and the *PPCME2*.

There are two types of annotation in the *YCOE*. On the one hand, texts are syntactically parsed according to the *Penn Treebank format* which is based on earlier versions of generative (x-bar) syntax. Those files have the final extension *.psd*. On the other hand, part-of-speech tagged files with the extension *.pos* exist (Taylor 2003).

In terms of filenames, all of them “begin with **co** following Helsinki practice. Texts that were included in the Helsinki Corpus have the same filename [...] [and] have the Helsinki period attached as an extension following PPCME2 practice. [...] When Helsinki provides two periods, the first being period of composition, and second, period of manuscript, both periods are included in the filename” (Taylor 2003). For example, the *Parker Chronicle* and the OE part of the *Peterborough Chronicle* can be found under the filename *cochronA.o23* and *cochronE.o34* in the

140 For detailed information on text files and annotation see

<http://www-users.york.ac.uk/~lang22/YCOE/YcoeHome.htm>

141 <http://www-users.york.ac.uk/~lang22/YCOE/doc/annotation/parsed-corpora-series.htm>

142 Taylor (2003) *YCOE Beginner's guide*

<http://www-users.york.ac.uk/~lang22/YCOE/doc/annotation/YcoeLite.htm#introduction>

143 <http://www.ota.ahds.ac.uk/>

144 <http://www.ling.upenn.edu/hist-corpora/PPCME2-RELEASE-3/index.html>

145 <http://www-users.york.ac.uk/~lang18/pcorpus.html>

146 <http://corpussearch.sourceforge.net/CS-manual/Contents.html>

YCOE. *cochronA.o23* is a text composed in period 2 for which the manuscript was written in period 3. Also note that

[s]ome of the texts in the corpus are included in more than one manuscript version. The texts involved have the same filename but end with a capital letter, different in each case, indicating the manuscript. This letter is in most cases the traditional letter name for the manuscript (e.g., *cochronA* is the A manuscript of the Anglo-Saxon Chronicle, the others being designated *cochronC*, *cochronD*, *cochronE*). (Taylor 2003)

Next to the *Anglo-Saxon Chronicles* other OE manuscripts were investigated. To extend the database, more prose texts were studied, especially those which are available from the earliest period (o.2). The manuscripts were particularly chosen because most of them – except the law texts – have a high word count (> 40.000w. – ~100.000w.) and thus provide large samples. Moreover, the idea was to study texts from various genres. In terms of their genre, the chosen manuscripts are historical annals, law texts, religious homilies and philosophical texts and thus vary in their prose styles (Bately 1991: 81). This is one of the reasons why these texts should not be treated as one corpus sample, but should rather be interpreted as separate texts being investigated next to each other.¹⁴⁷

Additionally, most of the o.2 texts are texts which were translated by King Alfred, king of Wessex (877–899), to revive education in England. Although it is unlikely that Alfred translated all of them himself, a certain Alfredian style can be identified. This style is very different from the elaborate style of later writers like e.g. Ælfric, a scholar with classical education, fluent in Latin and English (Wardale 1935: 266). This means that the results in the individual texts do not tell us much about the Old English which was spoken on the streets, but about a very specific register used by one person (or a team of translators). It would go far beyond the scope of this book to present as much information on every individual text as was presented on the chronicles. Therefore, only the most important background information about the texts shall be provided.

9.1 Ælfric's *Lives of Saints* and *Catholic Homilies*

Next to the *Peterborough Chronicle* and *Parker Chronicle*, which have been tagged as texts from middle Old English, I also added the first part of Ælfric's *Catholic Homilies* and his *Lives of Saints* to extend the sample of o.3 texts. Ælfric was an

¹⁴⁷ Additionally, their regional and dialectal differences should prevent us from interpreting the texts as one sample.

English abbot and a prolific writer. He gained reputation as a scholar at Winchester and novice master at the abbey of Cerne, Dorsetshire, where he wrote his two famous sets of his English homilies, which were dedicated to Sigeric, Archbishop of Canterbury. The first series of forty homilies is devoted to a plain description of the major events of the Christian year (Bately 1991: 79).¹⁴⁸ As a third major work, he wrote the *Lives of Saints*. Interestingly, some passages in the *Lives of Saints* are written in a kind of rhythmical, alliterative prose (Skeat 1966[1881–1900]; Hurt 1972; Magennis & Swan 2009).

Text name: Ælfric's Lives of Saints

File name: coelive.o3

DOE short title: ÆLS

Cameron number: B1.3.2 – B1.3.35

Manuscript: London, British Museum, Cotton Julius E.VII

Manuscript: date s. xi in.

Dialect: West Saxon

Genre: Biography, lives

Latin translation: No

Word count: 100,193

Edition: Skeat, W. W.. 1966[1881-1900]. *Ælfric's Lives of Saints*. EETS 76, 82, 94, 114. London: Oxford University Press.

Text name: Ælfric's Catholic Homilies I

File name: cocathom1.o3

DOE short title: ÆCHom I

Cameron number: B1.1.2 - B1.1.42

Manuscript: Cambridge, University Library, Gg.3.28

Manuscript date: s. x/xi

Dialect : West Saxon

Genre: Homilies

Latin translation: No

Word count: 106,173

Edition: Clemoes, P. 1997. *Ælfric's Catholic Homilies: The First Series*. EETS s.s. 17. Oxford: Oxford University Press.

148 The second series deals with church doctrine and history.

9.2 *Blickling Homilies*

The *Blickling Homilies* is one of the oldest collections of anonymous Anglo-Saxon homilies, the other collection of sermons being the *Vercelli Book*. Their name is inspired by Blickling Hall in Norfolk where they were kept for a while. The manuscript is now kept at a private collection at Princeton University (Scheide Library, MS 71). The manuscript has three distinct parts: a calendar, a selection of Gospel passages for the administration of oaths and an Anglo-Saxon homiliary. The 18 homilies in the collection follow the liturgical year and, for example, deal with Lent, Easter, Pentecost, the Rogation Days and Ascension Day. The rest of the homilies in the collection are saints' feast days (e.g. St. Michael, St. Martin). (Kelly 2003: xxxi; Lapidge et al. 1999: 241-2; Scragg 1985).

Text name: Blickling Homilies

File name: coblick.o23

DOE short title: HomS (BlHom 2-7, 9, 11-12); HomU (BlHom 1, 8, 10); LS (BlHom 13-15, 17(MichaelMor), 17(MartinMor), 19)

Cameron number:

HomS: B3.2.8, B3.2.10, B3.2.14, B3.2.17, B3.2.21, B3.2.26, B3.2.40.5, B3.2.46, B3.2.47

HomU: B3.4.18, B3.4.19, B3.4.20

LS: B3.3.1.2, B3.3.12, B3.3.17.2, B3.3.20, B3.3.25, B3.3.32

Manuscript: Collection of W.H.Scheide, Titusville [Princeton. N.J.]

Manuscript date: s. x/xi

Dialect: West Saxon/Anglian

Genre: HomS: Homilies; HomU: Homilies; LS: Biography, Lives

Latin translation: No

Word count: 42,506

Edition: Morris, Richard. 1967 (1874-1880). *The Blickling Homilies*. EETS 58, 63, 73. London: Trübner.

9.3 Laws

Legal documents such as wills and laws were the first documents to be written in the English vernacular. Thus the following texts have also been chosen for investigation: the *Laws of Alfred*, *Alfred's Introduction to the Laws* and the *Laws of Ine*. It appears that "law-making had [...] become a public display of royal power and prerogative, and it was an opportunity to set out ideological aspirations" (Marsden 2004: 45). The law-makers' priority lay in integrating the needs of the

new church within the established legal system. Additionally, another object of the Anglo-Saxon law was to “formulize and contain the more destructive aspect of the Germanic feud system, whose structure of reciprocal loyalties demanded the exacting of revenge for wrongs done to kin or to associates” (Marsden 2004: 45; Hough 2001). In terms of language, the laws are of a very elementary character because they generally were the first texts where prose began to take the place of verse (Wardale 1935: 238): “The prose used in the lawcodes, especially the earlier ones, is concise and unadorned and reflects their oral and formulaic origins in Germanic law-making” (Marsden 2004: 46).

Text name: Laws of Alfred

File name: colawaf.o2

DOE short title: LawAf 1

Cameron number: B14.4.4

Manuscript: Cambridge, Corpus Christi College, 173

Manuscript date: s. ix/x - x2

Dialect: West Saxon

Genre: Laws

Latin translation: No

Word count: 3,314

Edition: Lieberman, F. 1903-16. *Die Gesetze der Angelsachsen*. Halle. Reprinted Aalen 1960.

Text name: Alfred's Introduction to Laws

File name: colawafint.o2

DOE short title: LawAfEl

Cameron number: B14.4.3

Manuscript: Cambridge, Corpus Christi College, 173

Manuscript date: s. ix/x - x2

Dialect: West Saxon

Genre: Laws

Latin translation: No

Word count: 1,966

Edition: Lieberman, F. 1903-16. *Die Gesetze der Angelsachsen*. Halle. Reprinted Aalen 1960.

Text name: Laws of Ine

File name: colawine.ox2

DOE short title: LawIne

Cameron number: B14.4.5

Manuscript: Cambridge, Corpus Christi College, 383

Manuscript date: s. xi/xii

Dialect: West Saxon

Genre: Laws

Latin translation: No

Word count: 2,755

Edition: Lieberman, F. 1903-16. *Die Gesetze der Angelsachsen*. Halle. Reprinted Aalen 1960.

9.4 Gregory's Dialogues

King Alfred commanded Bishop Wærferth of Worcester to translate Gregory's Dialogues into English sometime between 870 and 890. The translation was revised by somebody between 950 and 1050. Wærferth's original translation survived in two manuscripts: 'C' to be found in Cambridge and 'O' in the British Library. Although it is considered to be a translation from Latin, scholars agree that the translator/reviser changed a lot of elements to bring the translation into accord with OE structures (Yerkes 1982: 10). Gregory the Great, who was born into a noble family of politicians in c.540 in Rome, set up a monastery in 574 and finally became pope in 590. He died in 604. He wrote the *Dialogues* as a hagiography in which he describes the life of near contemporary saints of Italy, most importantly Benedict (Lapidge et al. 1999: 221).

Text name: Gregory's Dialogues

File name: cogregdC.o24

DOE short title: GD (C)

Cameron number: B9.5.1 - 9.5.6

Manuscript: Cambridge, Corpus Christi College, 322

Manuscript date: s. xi2

Dialect: West Saxon/Anglian Mercian

Genre: Biography, lives

Latin translation: Yes

Word count: 91,553

Edition: Hecht, Hans. 1965[1900–1907]. *Bischof Wærferth von Worcester Übersetzung der Dialoge Gregors des Grossen*. Bibliothek der Angelsaechsischen Prosa, V. Darmstadt: Wissenschaftliche Buchgesellschaft.

9.5 Bede's *Historia ecclesiastica gentis Anglorum*

Bede's *Historia ecclesiastica gentis Anglorum* ('The ecclesiastical history of the English people') is a record of the ecclesiastical and political history of the nation of 'the English', which is firmly set in the context of Christian history. Bede, also referred to as the Venerable Bede, was a monk at the Northumbrian monastery of Saint Peter. Bede's writing was immense; the *Historia ecclesiastica gentis Anglorum* is said to be his greatest achievement and gained him the title 'The Father of English History'. In five books it tells the story of the isles from Julius Caesar's invasion in 60 BC to the year in which Bede finished the document: 731 (Colgrave and Mynors 1969; Ray 2001). The main focus of the text is on the conflict between Roman and Celtic Christianity. Bede also wrote a preface for the work and dedicates it to Ceolwulf, king of Mercia.

The first twenty-one chapters, which cover the period before the mission of St. Augustine, are compiled from earlier writers such as Orosius and Gildas. As many other texts from that period, the text is less objective than modern historical writings, being a mixture of fact, legend and literature (Marsden 2004: 43). It is very likely that King Alfred commissioned the translation from Latin,¹⁴⁹ which again supported the increasing importance of the vernacular. For the first time people could read about the history of Britain in their own language (Marsden 2004: 43; Wardale 1935: 239). Also the *Anglo-Saxon Chronicle*, which was composed at that time, draws heavily on the *Historia* (Higham 2006). The translation (showing West-Saxon and Anglian features) tends to stick closely to the original; a fact which sometimes leads to awkward results. Alfred had some passages which suited him politically translated very closely, but he cut down and summarized others only briefly (Wardale 1935: 248). The OE translation is preserved in four main manuscripts and some fragments (Marsden 2004: 70). The most authoritative manuscript (version O; Hatton 43 (4106)) is considered to be the earliest and is again to be found in the Bodleian Library, Oxford (Colgrave & Mynors 1969; Hunter Blair 1966; Ward 1990; Higham 2006; Wright 2008).

Text name: Bede's History of the English Church

File name: cobede.o2

DOE short title: Bede

Cameron number: B9.6

Manuscript: Cambridge, University Library Kk.3.18

Manuscript date: s. xi2

149 Alfred's direct involvement in the translation has not been proved (Marsden 2004: 69).

Dialect: West Saxon/Anglian

Genre: History

Latin translation: Yes

Word count: 80,767

Edition: Miller, Thomas. 1959–1963[1890-1898]. *The Old English Version of "Bede's Ecclesiastical History of the English People"*. EETS 95, 96, 110, 111. London: Oxford University Press.

9.6 Alfred's rendering of Boethius' *De consolazione Philosophiae*

One of the texts chosen is King Alfred's translation of Boethius' *De consolazione Philosophiae* ('On the consolation of Philosophy'), which was one of the most widely read and influential books of the Middle Ages. Boethius was a patrician Roman consul and Christian philosopher (although his philosophy is essentially pagan), who wrote the *consolacione* in prison.¹⁵⁰ It purports a dialogue between himself and a figure named Philosophia ('Lady Philosophy') who visits him in his cell. They discuss injustices of fortune and the divine influence on existence. The work tries to preserve classical philosophical knowledge. Originally written in Latin, the work was translated many times including translations by Chaucer and Queen Elisabeth (Wardale 1935: 252). Also Alfred had this text translated into West Saxon, and he demanded some severe changes, eliminating autobiographical references to Boethius and presenting the dialogue as one between the inquirer's mind and a male personification of Wisdom, rather than Philosophia. He also added an introduction to the translation accounting for the historical background of Boethius' fate. Generally he gave it a stronger Christian character (Marsden 2004: 37). Wardale states that "[t]his well-known work Alfred has treated with remarkable independence, even for those days" (1935: 252), and Bat-ely mentions that

[a]t some times it seems as though he is using his Latin texts as no more than a spring-board for his own considered responses to their contents and his personal interests (Bat-ely 1991: 77).

150 Boethius was imprisoned and executed by Theoderic the Great, who suspected him of conspiring with the Byzantine Empire (Mitchell and Robinson 2001: 226).

The Old English *Boethius* has been preserved in three MSS. The most complete is kept in the Bodleian Library, Oxford (Mitchell and Robinson 2001: 226; Sedgefield 1899).

Text name: Boethius, Consolation of Philosophy

File name: coboeth.o2

DOE short title: Bo

Cameron number: B9.3

Manuscript: London, British Museum, Cotton Otho A.VI

Manuscript date: s. x med.

Dialect: West Saxon

Genre: Philosophy

Latin translation:

Head: ?

Proem: No

Body: Yes

Word count: 48,443

Edition: Sedgefield, Walter John. 1899. *King Alfred's Old English Version of Boethius de Consolatione Philosophiae*. Oxford: Clarendon Press. Reprinted Darmstadt 1968.

9.7 Alfred's translation of Gregory's *Cura pastoralis*

King Alfred also distributed a translation of Pope Gregory the Great's *Cura pastoralis*, a handbook for priests, to churches throughout his kingdom. The English version of the handbook is commonly known as *Pastoral Care* and deals with the responsibilities of the clergy. In the case of *Pastoral Care*, relatively minor changes within the paragraph and on the syntactic level were made (Bately 1991: 75). Alfred's translation is also kept at the Bodleian Library and is the oldest known book written in English. With it Alfred started his series of translations (Wardale 1935: 242–243; Marsden 2004: 30; Sweet 1958[1871]; Ker 1957).

Text name: Cura Pastoralis

File name: cocura.o2

DOE short title: CP

Cameron number: B9.1.2, B9.1.3

Manuscript: Oxford, Bodleian, Hatton 20

Manuscript date: s. ix ex.

Dialect: West Saxon

Genre: Religious treatise

Latin translation: Yes

Word count: 68,556

Edition: Sweet, Henry. 1958 (1871). *King Alfred's West-Saxon Version of Gregory's Pastoral Care*. EETS 45, 50. London: Oxford University Press.

Remarks Defective section 33 replaced by Cotton Tiberius B.XI, see cocuraC

9.8 Orosius' *Historiae adversum paganos*

Orosius, a Spanish priest, was an early 5th century Christian historian and is best known for his *Historiae adversum paganos*, where it is suggested that the world has improved since the introduction of Christianity. He wrote the text as a response to the belief that the Roman Empire declined after the sack of Rome by Alaric the Goth in 410 as a result of its adoption of Christianity. “Orosius made his book a survey of the earlier history of the world with its sufferings from war, earthquakes, pestilences and fire, but especially from war” (Wardale 1935: 244). The text covers the period from the fall down to about 417. The text was translated very freely and abbreviated into West Saxon to have a clear message for a “ninth-century Christian England troubled by the attacks of pagan Vikings” (Bately 1991: 77). For example, some parts on geography were added. Again, the translation was potentially commissioned by Alfred (Wardale 1935: 244–246; Sweet 1883; Bately 1980).

Text name: Orosius

File name: coorosiu.o2

DOE short title: Or

Cameron number: B9.2.1 - B9.2.7

Manuscript: London, British Museum, Add. 47967

Manuscript date: s. x1

Dialect: West Saxon

Genre: History

Latin translation: Yes

Word count: 51,020

Edition: Bately, Janet. 1980. *The Old English Orosius*. EETS s.s. 6. London: OUP.

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