

平成 23 年度名古屋大学大学院文学研究科

学位（課程博士）申請論文

**A Diachronic Study on the Structure of**

**English Noun Phrases**

（英語における名詞句構造についての通時的研究）

名古屋大学大学院文学研究科

人文学専攻英語学専門

茨木正志郎

平成 23 年 12 月

**A DIACHRONIC STUDY ON THE STRUCTURE OF  
ENGLISH NOUN PHRASES**

by

Seishirou IBARAKI

Dissertation Submitted to the Graduate School of Letters

in Partial Fulfillment of the Requirements

for the Degree of

DOCTOR OF LITERATURE

at

Nagoya University

December 2011

## *Acknowledgments*

---

This thesis owes a great deal to a number of people who I would like to express my gratitude for their teaching and support during my doctoral studies at the Graduate school of Nagoya University.

First and foremost, I would like to express my gratitude to my supervisors Takeshi Omuro and Tomoyuki Tanaka for their insightful suggestions and warm comments on earlier versions of this thesis. I have been benefit from their wisdom regarding legarding linguistics over the years. They have given me valuable and insightful suggestions on earlier versions of this study. Had it not been for their help and encouragement, I would not have been able to complete this thesis. Other teachers from whom I learned a great deal include Hirozo Nakano, Yoshinobu Niwa, Masayuki Ohkado, Shigeru Miyagawa, and Zane Goebel.

I am much indebted to Ko-ichiro Hamasaki, who taught me English Linguistics in my years in Kagoshima. Through his classes, I learned how interesting it is to study generative grammar. He helped and encouraged me to go further into the field of linguistics. Without his help, I could not start my career at Nagoya University.

I am grateful to graduates of Nagoya University, particularly, Kazuhisa Ishikawa, Naoshi Nakagawa, Yuka Makita, Tomoyuki Yanagi, Shin-ichi Nimura. My sincere thanks also go to my fellow graduate students for their useful comments, stimulating

discussions and warm friendship: Yosuke Fukumoto, Tomoyuki Yamaguchi, Azusa Yokogoshi, Hiroki Maezawa, Satoshi Nakagawa, Mikiko Mizoguchi, Kumiko Ota, Yusuke Kume, Yosuke Matsumoto, Song Wei, Shuto Yamamura, Keita Tanikake, Shoko Honda, Yuhki Yoshimura, Feng Shuang, Katsuya Sugiura, Takahiro Tamada, Noriyuki Tanaka, Chigch Bai, Ryoichi Kondo, Seki Takayuki, and Di Yang.

My special thanks go to Hiroyuki Nawata, who spent tremendous time and effort in reading my thesis. His insightful comments provided this study with productive feedback, and eliminated stylistic errors in an earlier draft of this thesis. Without his help, I could not finish writing up my thesis. Needless to say, all remaining errors and inadequacies are of course my own.

It is very regrettable that I cannot hand this thesis to my late supervisor Masachiyo Amano, who always believed and cared about me. I learned a lot of things from his lecture, and above all, the importance of intensive reading and critical thinking, which I will never forget. Without his immense encouragement, this thesis would not exist at all. I still feel a very deep grief at his sudden passing. But I believe that Professor Amano still lives in my memories, and I will always remember him.

Finally and most importantly, I would like to express my deepest thankfulness to my family: my father Yoshikazu Ibaraki, my mother Hisako Ibaraki and my brother Koshirou Ibaraki. Without their continuous support and encouragement, none of this would have been possible. I would like to dedicate this thesis to my family.

## *Table of Contents*

---

Acknowledgments	i
Table of Contents	iii
Abstract	viii
Abbreviations	x
<i>Chapter 1 Introduction</i>	1
1.1. The Aim of This Thesis	1
1.2. The Organization of This Thesis	2
Notes to Chapter 1	5
<i>Chapter 2 The Development of the Determiner System in the History of English</i>	6
2.1. Introduction	6
2.2. Data	9
2.2.1. Quantifiers	9
2.2.1.1. Predeterminers	10
2.2.1.2. Central Determiners	13
2.2.1.3. Postdeterminers	14
2.2.2. Articles/Demonstratives, Possessive Pronouns and Adjectives	17
2.2.2.1. The Distribution of Adjectives	17
2.2.2.2. Double Determiners	20
2.2.2.3. The Distribution of Double Determiners and Adjectives	21
2.2.3. Summary	24

2.3. Previous Studies on Noun Phrases in Early English	25
2.3.1. Fischer and Wurff (2006)	26
2.3.2. Mitchell (1985)	27
2.3.3. Lightfoot (1979)	29
2.3.4. Yamamoto (1989)	31
2.3.5. Alexiadou (2003)	36
2.3.6. Summary	44
2.4. Explaining the Distribution of Elements within Noun Phrases	44
2.4.1. The Structure and Licensing of Noun Phrases	45
2.4.1.1. The Structure of Noun Phrases	45
2.4.1.2. Licensing Condition on Definite Noun Phrases	48
2.4.2. The Position of Elements within Noun Phrases	49
2.4.2.1. Quantifiers	49
2.4.2.2. Articles/Demonstratives, Possessive Pronouns and Adjectives	53
2.4.3. The Grammaticalization of Possessive Pronouns	61
2.4.3.1. Gelderen (2004)	62
2.4.3.2. The Position and the Grammaticalization Path of Possessive Pronouns	66
2.5. Concluding Remarks	70
Notes to Chapter 2	72
 <i>Chapter 3 The Distribution of Genitives in the History of English</i>	 77
3.1. Outline	77
3.2. Previous Studies	78
3.2.1. Ohmura (1995)	78

3.2.2. Amano (2003)	83
3.3. Some Properties of Genitives	86
3.3.1. The Origin of -'S	86
3.3.2. The Change of Genitive Case Assignment in the History of English	88
3.3.3. -'S as a D Element	90
3.3.4. The Development of Genitives as Degrammaticalization	94
3.3.4.1. The Structural Development of Genitives in the History of English	94
3.3.4.2. The Development of -(e)s/-'s as Degrammaticalization	96
3.4. Degrammaticalization	97
3.4.1. Hopper and Traugott (2003)	97
3.4.2. Bybee, Perkins and Pagliuca (1994)	98
3.4.3. Newmeyer (1998)	99
3.4.3.1. From Inflectional Affix to Derivational Affix	99
3.4.3.2. From Inflectional Affix to Clitic	100
3.4.3.3. From Inflectional Affix to Word	102
3.4.3.4. From Derivational Affix to Word	103
3.4.3.5. From Clitic to Word	103
3.4.3.6. From Functional Category to Lexical Category and from Pronoun to Noun	105
3.4.3.7. From Hypotaxis to Parataxis	106
3.4.4. Norde (2009)	106
3.4.4.1. Degrammation	108
3.4.4.2. Deinflectionalization	109
3.4.4.3. Debonding	114
3.5. The Distribution of Genitives in the History of English	116

3.5.1. Historical Data	117
3.5.2. A Syntactic Analysis of the Distribution of Genitives in the History of English	121
3.6. Concluding Remarks	125
Notes to Chapter 3	126
 <i>Chapter 4 The Loss of Postnominal Genitives</i>	 132
4.1. Outline	132
4.2. Previous Studies	133
4.2.1. Allen (2008)	133
4.2.1.1. Postnominal Genitives in Old English	133
4.2.1.2. Postnominal Genitives in Middle English	136
4.2.2. Ohmura (1995)	138
4.2.3. Problems with the Previous Studies	142
4.3. The Development of -'S and the Loss of Postnominal Genitives	143
4.3.1. Assumptions	144
4.3.2. No Defective Intervention Constraints in Early English	146
4.3.3. The Structure and Derivation of Prenominal Genitives in Early English	150
4.3.3.1. Prenominal Genitives: Det-(Adj)-Gen-N and Gen-(Adj)-N	151
4.3.3.2. The Group Genitive	155
4.3.4. Postnominal Genitives: Their Structure, Derivation and Loss	160
4.4. Concluding Remarks	166
Notes to Chapter 4	167
 <i>Chapter 5 The Emergence of the Definite Article in the History of English</i>	 175



5.1. Introduction	175
5.2. Previous Studies	177
5.2.1. Ono and Nakao (1980)	177
5.2.2. Traugott (1972)	177
5.2.3. Watanabe (2009)	179
5.3. The Time of the Emergence of the Definite Article	181
5.4. The Development of the Definite Article as Grammaticalization	187
5.4.1. Problem of Previous Studies	188
5.4.2. Grammaticalization: Divergence and Semantic Bleaching	190
5.4.3. Grammaticalization: from Grammatical Word to Clitic	193
5.5. Concluding Remarks	195
Notes to Chapter 5	196
 <i>Chapter 6 Conclusion</i>	 200
<i>Bibliography</i>	204

# **A Diachronic Study on the Structure of English Noun Phrases**

by

Seishirou IBARAKI

Submitted to the Graduate School of Letters, Nagoya University

in Partial Fulfillment of the Requirement for the Degree of

Doctor of Literature

## **Abstract**

The diachronic change of the structure of English noun phrases has received little attention when compared with that of verb phrases and clauses. This thesis aims to explore the development of noun phrase structure in the history of English.

Chapter 2 clarifies the development of the determiner system by examining the distribution of elements within noun phrases in the history of English, arguing that their word order patterns are basically the same in Present-day English and early English, except possessive pronouns, which have been grammaticalized into a central determiner. The unique behavior of possessive pronouns was responsible for a variety of word order patterns and the cooccurrence of article/demonstratives and possessive pronouns in early English: the base-generated position of possessive

pronouns was Spec-NumP in Old English and the head of NumP in Middle English and Early Modern English. Finally, grammaticalization of possessive pronouns in Late Modern English led to the establishment of the determiner system as in Present-day English.

Chapter 3 explores the syntactic change of genitives by focusing on the development of *-’s* in the history of English, arguing that *-’s* is the descendant of the genitive inflection *-(e)s*. It is proposed that in the course of the development, the syntactic status of *-(e)s/-’s* has changed into a D element assigning genitive Case, which is shown to be a case of degrammaticalization. It is also demonstrated that the proposed analysis can properly explain the distributional change of genitives obtained from the investigation of historical corpora.

Chapter 4 discusses the loss of postnominal genitives in the history of English in terms of the development of the genitive inflection *-(e)s/-’s*. It is proposed that the change of the genitive *-(e)s/-’s* from an affix to a D element came to prevent a head noun of postnominal genitives from moving to a higher position within the double DP structure, which leads to the loss of the double DP structure of postnominal genitives.

Chapter 5 explores the emergence of the definite article *the*, arguing that the development of the definite article started at the end of the twelfth century and completed during the fourteenth century, and its development is one instance of grammaticalization in terms of divergence and semantic bleaching.

Chapter 6 summarizes the findings of this thesis and discusses their significance for future.

## *Abbreviations*

---

The following abbreviations are used in this thesis:

Acc	accusative case
Adj	adjective
Art	article
Asp	aspect
AspP	aspect phrase
CLMET	The Corpus of Late Modern English Texts
Collins	The Collins Wordbanks Online
Dat	dative case
Dem	demonstrative
D(P)	determiner (phrase)
EModE	early Modern English
Gen	genitive case/genitive noun phrase
LModE	late Modern English
ME	Middle English
N(P)	noun (phrase)
Nom	nominative case
Num(P)	number (phrase)
OE	Old English
OED	Oxford English dictionary
PL	plural

Poss	possessive pronoun
PostD	postdeterminer
PPCEME	The Penn-Helsinki Parsed Corpus of Early Modern English
PPCME2	The Second Edition of The Penn-Helsinki Parsed Corpus of Middle English
PreD	predeterminer
Q	quantifier
Spec	specifier
SG	singular
Top(P)	topic (phrase)
V(P)	verb (phrase)
<i>v</i> (P)	light/small verb (phrase)
YCOE	The York-Tronto-Helsinki Parsed Corpus of Old English

## *Chapter1*

---

### *Introduction*

#### **1.1. The Aim of This Thesis<sup>1</sup>**

In studies of diachronic change in English, the syntax of noun phrases and its development have received little attention in comparison to that of verb phrases and clauses. This thesis aims to explore the development of the noun phrase structure in the history of English. It seems that many issues concerning noun phrases remain unclear. For example, it is controversial whether the word order pattern in OE was rather free (Carlson (1978), Lightfoot (1979) and Yamamoto (1989)) or fixed to some extent (Mitchell (1985) and Alexiadou (2004)). Also, there seems no consensus on the syntactic status of demonstratives, i.e. whether they occupied Spec or head positions, and on the origin of the genitive *-’s*, i.e. whether it has developed from the genitive inflection *(e)s* (Allen (1997, 2008)) or from *his*-genitives (Amano (2003) and (Taylor (1996))). In addition, little attention has been paid to the structure of the double determiner in OE and ME and its loss during ModE, and to the structure of postnominal elements in early English and their loss. Although some sporadic discussions have been made for the emergence of the definite article *the* (Mustanoja (1960), Nakao (1972), Traugott (1972), Ono and Nakao (1980), Wood (2003) and Watanabe (2009)), details still remain unclear with many respects, e.g. exactly when *the* was introduced to English or how it developed. Most studies on these issues above are arguable because their argument are based on very limited data or data

quoted at second hand. In this thesis, I carry out a comprehensive and statistical research for the issues above by using historical corpora, which cover all the stages of the history of English, present an empirical investigation on the result of data from the corpora, and give an account for them within the framework of generative grammar.

## **1.2. The Organization of This Thesis**

This body of this thesis is organized as follows. Chapter 2 attempts to clarify the development of the determiner system by examining the distribution of elements within noun phrases in the history of English. It has often been said that the word order in early English was rather free because of its rich system of case and other inflectional morphology; thus, the word order patterns which are not accepted in PE were once possible. By using historical corpora, I provide a systematic investigation of the distribution of elements within noun phrases, i.e., quantifiers, articles/demonstratives, possessive pronouns and adjectives, and give an account for the development of the determiner system within the framework of generative grammar. The results of the investigation show that the word order of elements within noun phrases in early English was as fixed as in PE, except for possessive pronouns, which have been grammaticalized into a central determiner in accordance with the Spec to head and Late Merge principles proposed by Gelderen (2004). The unique behavior of possessive pronouns was responsible for a variety of word order patterns and the cooccurrence of articles/demonstratives and possessive pronouns in early English: the base-generated position of possessive pronouns was Spec-NumP in Old English and the head of NumP in Middle English and Early Modern English. Finally, grammaticalization of possessive pronouns in Late Modern English led to the

establishment of the determiner system as in Present-day English.

Chapter 3 aims to clarify the syntactic change of genitives by focusing on the development of *-’s* in the history of English, arguing that *-’s* is the descendant of the genitive inflection *-(e)s*. Reviewing several previous studies which claim that *-’s* has developed from the *his*-genitive, I point out problems with their analysis. It is proposed that in the course of the development, the syntactic status of *-(e)s/-’s* changed into a D element assigning genitive Case to Spec-NP, which is shown to be a case of degrammaticalization. We observe cases of degrammaticalization, which has given rise to much controversy due to their incompatibility with unidirectional property of grammaticalization and often been considered as statistically insignificant or inadequate. However, there are a variety of changes of degrammaticalization, which cannot be overlooked, as shown in this chapter. It is also demonstrated that the proposed analysis can properly explain the distributional change of genitives obtained from the investigation of historical corpora.

Chapter 4 discusses the loss of postnominal genitives in the history of English. It has often been said that rather various kinds of elements could follow the head noun they modify in the earliest stage of English. Genitives were also able to postmodify the head noun, and its postnominal usage is said to have disappeared during the early ME period. The purpose of this chapter is to provide an account for the loss of postnominal genitives. Not much has been discussed for the issue thus far. I review two previous studies, Ohmura (1995) and Allen (2008), but their analyses are inadequate to clarify structurally how postnominal genitives were lost. I argue that the development of the genitive *-(e)s/-’s*, which we will discuss in chapter 3, had great influence on the loss of postnominal genitives in the history of English. The development of the genitive *-(e)s/-’s* from an affix to a D element came to prevent a



head noun of postnominal genitives from moving to a higher position within the double DP structure, which in turn led to the loss of postnominal genitives.

Chapter 5 aims to clarify the development of the definite article in the history of English. It is widely known that the PE definite article *the* has developed from the OE demonstratives, especially from the masculine singular nominative form *se*. Also, it is often argued that the development of the definite article is one instance of grammaticalization. However, no consensus is obtained in the literature as to whether the syntactic status of demonstratives in OE was a Spec or a head. Thus, there seem to be three issues to be addressed according to the development of the definite article; (i) exactly when the definite article was introduced into English; (ii) the position of demonstratives in OE; (iii) the developmental process of the definite article. For these issues, I put forth the following claims: (i) the development from the demonstrative to the definite article started during the twelfth century; (ii) the position of demonstratives in OE was the head of DP, and (iii) that its development is one instance of divergence and semantic bleaching and it is also a case of grammaticalization from grammatical word to clitic along the cline proposed by Hopper and Traugott (2003).

In conclusion, chapter 6 summarizes the findings of this thesis and discusses their significance for future.

## Notes to Chapter 1

1 Here are the historical periods of English standardly assumed : Old English (OE: 450-1100), Middle English (ME: 1100-1500), Early Modern English (EModE: 1500-1700), Late Modern English (LModE: 1700-1900), and Present-day English (PE: 1900-). This thesis also uses the term “early English” to refer to all the early stages of English before PE.

## Chapter 2

---

### *The Development of the Determiner System in the History of English*

#### 2.1. Introduction

In the tradition of English grammar, the determiner system in PE has been characterized by dividing determiners into the following three classes.

**Table 1**

---

Predeterminer : e.g. *all, both, half*

Central determiner : e.g. articles, demonstratives,  
possessive pronouns, *any, every, some*

Postdeterminer : e.g. cardinal and ordinal numerals, *few, many*

---

(cf. Quirk et al. (1985: 253))

Quirk et al. (1985) state that the three classes of determiners are distinguished from each other on the basis of their positions, and adjectives appear between determiners and the head noun within noun phrases. Thus, the positions of elements within noun phrases such as articles, demonstratives, possessive pronouns, quantifiers, adjectives and so on are fixed in PE. As illustrated in (1), the word order of the three classes of determiners is rigid: predeterminers precede central determiners, which in turn precede postdeterminers. Moreover, the examples in (2) show that

adjectives must follow all the classes of determiners, and articles, demonstratives and possessive pronouns cannot cooccur within a single noun phrase.

- (1) a. \*those all trouble (cf. all those trouble)
- b. \*five the all boys (cf. all the five boys)
- c. \*two both students (cf. both two students)                    (cf. Quirk et al. (1985: 253))
- (2) a. \*good the king (cf. the good king)
- b. \*old my friends (cf. my old friends)
- c. \*that his book / \*his that book

It has been often been said that the word order in early English was rather free because of its rich system of case endings and other inflectional morphology; thus, word order patterns like (1) and (2) were once possible. A related question is whether the determiner system in early English was different from that in PE, and if so, how different it was from PE.

As for the development of the determiner system, there have been some studies arguing that the functional category D was absent in early English, and that it was introduced at some time in the history of English (Yamamoto (1989) and Osawa (2000)). For the word order of elements within noun phrases in early English, some linguists argue that they exhibit several word order patterns, with the implication that their positions within noun phrases were fixed to some extent (Mitchell (1985) and Alexiadou (2003)). Based on these arguments, it might be assumed that in early English, the word order of elements within noun phrases was free, or at least, their distribution were freer distribution than in PE. As we will see, however, there is empirical evidence to argue against this widely accepted assumption: the data

collected from historical corpora suggest that the distribution of elements within noun phrases in early English was basically the same as in PE, except for that of possessive pronouns.

The purpose of this chapter is to provide a systematic investigation of the distribution of elements within noun phrases, namely quantifiers, articles, demonstratives, possessive pronouns and adjectives, in the history of English, and to account for the development of the determiner system within the framework of generative grammar. The results of this investigation will show that the word order of elements within noun phrases was almost fixed in early English; the key difference between PE and early English is whether or not articles/demonstratives and possessive pronouns can cooccur within a single noun phrase. The fact that they do not cooccur in PE suggests that possessive pronouns compete with articles and demonstratives for the same position in noun phrases, which was not the case in early English. This difference is argued to be closely related to the grammaticalization of possessive pronouns into central determiners.

Our focus here is on prenominal elements, excluding postnominal elements. Genitive full noun phrases are also beyond the scope of this chapter, because they have undergone a complex path of development. We will return to the development of prenominal genitives in chapter 3, and the loss of postnominal genitives in chapter 4. The remaining of this chapter deals with possessive pronouns, which are usually included in the determiner system and show an interesting change in the history of English.

The organization of this chapter is as follows. Section 2 presents the data on the distribution of elements within noun phrases, which have been collected from *The York-Toronto-Helsinki Parsed Corpus of Old English* (henceforth, YCOE), The Second

Edition of *The Penn-Helsinki Parsed Corpus of Middle English* (henceforth, PPCME2), *The Penn-Helsinki Parsed Corpus of Early Modern English* (henceforth, PPCEME) and *The Collins Wordbanks Online* (henceforth, Collins). This reveals that the syntactic status of possessive pronouns in early English was different from that in PE. Section 3 reviews some previous studies on the distribution of elements within noun phrases in early English, pointing out their problems. Section 4 attempts to account for the change in the distribution of possessive pronouns in the history of English. Section 5 is the conclusion of this chapter.

## 2.2. Data

This section investigates the distribution of quantifiers, articles/demonstratives, possessive pronouns and adjectives within noun phrases by making use of the four corpora mentioned above. It will be found that their behavior in early English was basically the same as in PE, except for that of possessive pronouns.

### 2.2.1. Quantifiers

This section focuses on the behavior of quantifiers *all*, *both*, *half*, *every*, *any*, *some*, *many* and *few*. As discussed above, these quantifiers can be classified as follows in terms of their positions within noun phrases.

**Table 2**

Predeterminer	: <i>all</i> , <i>both</i> , <i>half</i>
Central determiner	: <i>every</i> , <i>any</i> , <i>some</i>
Postdeterminer	: <i>many</i> , <i>few</i>

(c.f. Quirk et al. (1985: 253))

The word order patterns examined in YCOE, PPCME2, PPCEME and Collins are given in (3).

- (3) a. Q - Art/Dem - N  
b. Art/Dem - Q - N

Q = quantifier, Art/Dem = article or demonstrative, N = noun

As shown in (3), I investigated the positions of quantifiers in relation to articles/demonstratives that are classified as central determiners. Note that possessive pronouns are excluded in (3) because they did not behave as central determiners in early English, as we will see in section 2.2.2. Moreover, it is generally assumed that articles did not constitute an independent category in OE (The definite article *the* later developed from demonstratives and the indefinite article *a/an* from the numeral one; Fischer and Wurff (2006: 116).) Thus, the relevant data in OE only involve demonstratives as elements of Art/Dem.

#### 2.2.1.1. Predeterminers

Let us consider how the predeterminers *all*, *both* and *half* are positioned within noun phrases. Quirk et al. (1985) classify these three as predeterminers; they usually precede articles, demonstratives, possessive pronouns, adjectives, and head nouns in PE, as illustrated in (4).

- (4) a. *all* the days  
b. *both* the/my eyes  
c. *half* my days

(Quirk et al. (1985: 258))

The results of the investigation based on the four corpora are shown in Table 3.

**Table 3**

<b>ALL</b>	<i>All</i> - Art/Dem - N	Art/Dem - <i>All</i> - N	Total
YCOE	1,927 (99.85%)	3 (0.15%)	1,930
PPCME2	2,056 (100%)	0 (0%)	2,056
PPCEME	2,048 (100%)	0 (0%)	2,048
Collins	21,014 (99.94%)	13 (0.06%)	21,027
<b>BOTH</b>	<i>Both</i> - Art/Dem - N	Art/Dem - <i>Both</i> - N	Total
YCOE	9 (100%)	0 (0%)	9
PPCME2	11 (100%)	0 (0%)	11
PPCEME	69 (97.18%)	2 (2.82%)	71
Collins	1,795 (99.67%)	6 (0.33%)	1,801
<b>HALF</b>	<i>Half</i> - Art/Dem - N	Art/Dem - <i>Half</i> - N	Total
YCOE	11 (52.38%)	10 (47.62%)	21
PPCME2	37 (80.43%)	9 (19.57%)	46
PPCEME	173 (83.57%)	34 (16.43%)	207
Collins	3,926 (59.71%)	2,649 (40.29%)	6,575

It is observed from Table 3 that the distribution of *all* and *both* in YCOE, PPCME2, PPCEME and Collins shows a strong tendency for them to precede central determiners within noun phrases. As for these two quantifiers, there seems to be no difference in their distribution among OE, ME, EModE and PE: they have been predeterminers throughout the history of English. Some examples are given in (5)



and (6).

- (5) a. *eall*      þa      ure      hors  
all-Acc   the-Acc   our-Acc   horses-Acc  
‘all our horses’      (coalex,Alex:16.18.169:o2)
- b. *all*      the      children      (APLUMPT-E1-H,189.108:e1)
- c. *begen*      þone      heofenlican      Fæder  
both-Acc   those-Acc   heaven-Acc   ancestors-Acc  
‘both the heaven ancestor’      (coaelhom,+AHom\_9:124.1356:o3)
- d. *bothe*      these      thinges  
‘both these things’      (CMASTRO,671.C2.282:m3)
- (6) a. þa      *ealle*      gesceafta  
that-Acc   all-Acc   creation-Acc  
‘all the creation’      (coboth,Bo:33.79.32.1502:o2)
- b. their      bothe      dishonour  
‘both their dishonor’      (MORERIC-E1P1,34.159:e1)

In (5), *all* and *both* precede the definite article and demonstratives which are classified as central determiners; in (6), they follow not only the central determiner but also the possessive pronoun although examples like (6) are very rare as observed in Table 3, which leads us to conclude that these examples are exceptional.

However, an interesting difference is observed between the distribution of *all* and *both* on the one hand, and that of *half* on the other: in contrast to *all* and *both*, *half* could be used as a postdeterminer as well as a predeterminer, as shown in Table 3. Some examples are given in (7) and (8).

- (7) a. *half* the partie  
           ‘half the party’ (CMCTPARS,301.C1.510:m3))
- b. *half* an hour (BURNETROC-E3-H,150.201:e3)
- (8) a. *þæm healfan dæle*  
           the-Dat half-Dat portion-Dat  
           ‘the half portion’ (coorositu,Or\_2:4.45.2.849:o2)
- b. a trewe *half* yard  
           ‘a trust half yard’ (CMREYNES,317.642:m4)
- c. his halfe aker  
           ‘his half acre’ (STEVENSO-E1-P1,6.68:e1)

In this respect, the ratio of the predeterminer use to the postdeterminer use of *half* is similar between PE and early English, though it seems that the predeterminer use was predominant in ME and EModE. Alongside *all* and *both*, *half* is generally classified as a predeterminer in PE (Quirk et al. (1985: 253)), but Table 3 indicates that it is also frequently used as a postdeterminer in PE. Given the results in Table 3, it is reasonable to assume that *half* has been used both as a predeterminer and as a postdeterminer since the OE period.<sup>1</sup>

#### 2.2.1.2. Central Determiners

This section discusses the distribution of the central determiners *every*, *any* and *some* in the historical corpora, which is basically the same as that observed in PE, as shown in Table 4.<sup>2</sup>

**Table 4**

<b>EVERY</b>	<i>Every</i> - Art/Dem - N	Art/Dem - <i>Every</i> - N	<i>Every</i> - N	Total
YCOE	0 ( - %)	0 ( - %)	0 ( - %)	0
PPCME2	0 (0%)	0 (0%)	214 (100%)	214
PPCEME	4 (0.33%)	0 (%)	1,207 (99.67%)	1211
Collins	2 (0.01%)	12 (0.06%)	20,485 (99.93%)	20499
<b>ANY</b>	<i>Any</i> - Art/Dem - N	Art/Dem - <i>Any</i> - N	<i>Any</i> - N	Total
YCOE	1 (0.1%)	0 (0%)	1,007 (99.9%)	1008
PPCME2	0 (0%)	0 (0%)	987 (100%)	987
PPCEME	54 (1.12%)	0 (0%)	4,761 (98.88%)	4815
Collins	20 (0.06%)	24 (0.06%)	35,236 (99.88%)	35280
<b>SOME</b>	<i>Some</i> - Art/Dem - N	Art/Dem - <i>Some</i> - N	<i>Some</i> - N	Total
YCOE	37 (1.55%)	0 (0%)	2,357 (98.45%)	2394
PPCME2	0 (0%)	1 (0.18%)	557 (99.82%)	558
PPCEME	1 (0.04%)	1 (0.04%)	2,232 (99.92%)	2234
Collins	70 (0.17%)	36 (0.09%)	41,587 (99.74%)	41693

In all the corpora, almost all of the examples attested fall into the Q-N pattern and there are few examples of the other two patterns. This suggests that *every*, *any* and *some* rarely occur with other central determiners throughout the history of English, indicating that they have been central determiners since the OE period.

### 2.2.1.3. Postdeterminers

Finally, let us examine the distribution of the postdeterminers *many* and *few*,

within noun phrases. Consider the results of the investigation based on the four corpora in Table 5.

**Table 5**

<b>MANY</b>	<i>Many</i> - Art/Dem - N	Art/Dem - <i>Many</i> - N	Total
YCOE	0 (0%)	9 (100%)	9
PPCME2	69 (94.52%)	4 (5.48%)	73
PPCEME	36 (59.02%)	25 (40.98%)	61
Collins	253 (23.56%)	821 (76.44%)	1074
<b>FEW</b>	<i>Few</i> - Art/Dem - N	Art/Dem - <i>Few</i> - N	Total
YCOE	1 (11.11%)	8 (88.89%)	9
PPCME2	0 (0%)	24 (100%)	24
PPCEME	0 (0%)	93 (100%)	93
Collins	6 (0.05%)	12,634 (99.95%)	12,640

The frequency of *few* preceding central determiners is very small, accounting for 1 among 9 examples in YCOE and 6 among 12,640 examples in Collins, respectively. As for *many*, although 69 examples and 36 examples of *Many*-Art/Dem-N are attested in PPCME2 and PPCEME, respectively, almost all of these examples involve the indefinite article *a(n)*, as exemplified in (9).

- (9) a. *many a* man (CMCTPARS,298.C2.437:m3)
- b. *many a* fole
- many a fool (MERRY TAL-E1-Ps,145.520:e1)

Only one of 36 examples attested in PPCEME involves the definite article *the*. Similarly, 253 examples of *Many*-Art/Dem-N are attested in Collins, but as many as 225 examples involve the indefinite article *a(n)*. Declerck (1998) suggests that in formal English, *many* can be used as a predeterminer followed by the indefinite article.

- (10) a. *Many an* actor has dreamed of playing the part of Othello.  
b. *Many a* day has passed since then. (Declerck (1998: 310))

Alternatively, Huddleston and Pullum (2002) suggest that *many* combines with the indefinite article to form a complex determiner in PE.<sup>3</sup>

Therefore, it seems to be the case that throughout the history of English, *many* can be used both as a predeterminer and as a postdeterminer, and the former use is almost restricted to examples in which it is followed by the indefinite article *a(n)*.<sup>4</sup>

So far, we have observed the distribution of quantifiers that are classified into predeterminers, central determiners and postdeterminers in the history of English. What we have found is that at least for the kinds of quantifiers examined here, their distribution is basically the same in PE and early English. As will be discussed in section 3, this fact runs counter to the observations in previous studies that elements could be freely ordered within noun phrases in early English. On the contrary, the result of the investigation in this section suggest that the word order of quantifiers within noun phrases has been fixed throughout the history of English, which will lead us to assume that the determiner system as in Table 1 was already established in OE, at least for quantifiers.

## **2.2.2. Articles/Demonstratives, Possessive Pronouns and Adjectives**

One of the most remarkable properties of noun phrases in early English is the cooccurrence of articles/demonstratives and possessive pronouns, constituting what are widely known as double determiners in the literature. Several previous studies (e.g. Yamamoto (1989)) observe another property: adjective could precede articles/demonstratives and possessive pronouns in early English. This section investigates the distribution of articles/demonstratives, possessive pronouns and adjectives.

### **2.2.2.1. The Distribution of Adjectives**

In PE, adjectives must follow articles, demonstratives and possessive pronouns within a single noun phrase, as observed in (2), which are repeated here in (11).

- (11) a. \*good the king (cf. the good king)  
b. \*old my friends (cf. my old friends)

According to Carlson (1978), Lightfoot (1979) and Yamamoto (1989), examples like (11) were possible in early English. Let us examine whether adjectives could precede articles/demonstratives and possessives pronouns within noun phrases in early English, in order to check the validity of these observations. For this purpose, the word order patterns in (12) were searched in YCOE, PPCME2 and PPCEME, and it yielded the results summarized in Table 6.

- (12) a. Art/Dem - Adj - N  
b. Adj - Art/Dem - N

c. Poss - Adj - N

d. Adj - Poss - N

Adj = adjective, Poss = possessive pronoun

**Table 6**

	Art/Dem - Adj - N	Adj - Art/Dem - N	Total
YCOE	20,306 (99.65%)	71 (3.5%)	20,377
PPCME2	11,928 (98.79%)	146 (1.21%)	12,074
PPCEME	24,960 (97.6%)	613 (2.4%)	25,573
	Poss - Adj - N	Adj - Poss - N	Total
YCOE	3,055 (99.16%)	26 (0.84%)	3,081
PPCME2	3,103 (99.97%)	1 (0.03%)	3,104
PPCEME	5,888 (99.76%)	14 (0.24%)	5,902

In OE, ME and EModE, the patterns Art/Dem-Adj-N and Poss-Adj-N are the overwhelming majority, whereas there are just a few examples of the patterns Adj-Art/Dem-N and Adj-Poss-N. The kinds of adjectives that precede articles/demonstratives and possessive pronouns are highly restricted. In YCOE, such adjectives are limited to two kinds: one is the adjective equivalent to *middle* in PE and the other includes some adjectives ending with *weard*, which express directions, as shown in (13).

(13) a. *eastweardes*    þæs    folces

eastward-Acc   the-Acc   people-Acc

(cochronD,ChronD\_[Classen-Harm]:894.37.821)

b. *middum* þæm hweole

middle-Dat the-Dat wheel-Dat

(comart 3. Mart\_5\_[Kotzor]:My5,A.26.747:o2)

c. *innerweardre* his heortan

inward-Dat his heart-Dat

(cogregdH,GD\_1\_[H]:2.21.21.187:o2)

d. *middan* urum wintra

middle-Dat our winter-Dat

(cotempo,ÆTemp:4.53.186:o3)

The adjectives attested in the order Adj-Art/Dem-N in PPCME2 and PPCME are also limited to two kinds: one is the adjective *such* and the other includes some adjectives modified by degree adverbs such as *so* and *too*, as exemplified in (14) and (15), respectively.

(14) a. *suche* a man

such a man

(CMMALORY,191.2826:m4)

b. *suche* a fissher

such a fisher

(CMPOLYCH,VI,101.7111:m3)

(15) a. *so gret* an emperoures sone

so great an emperor's son

(CMVICES4,99.41:m3)

b. *so good* a knyght

so good a knight

(CMMALORY,634.3757:m4)

c. *soe short* a tyme

so short a time

(IE RHADDSR-1650-E3-P1,1.6:e3)

d. *too long* a work

(HOOKE-E3-P1,106.93:e3)



e. *too greate a difficultye*

*too great a difficulty*

(AUNGIER-E3-P2,9,P.47: e3)

As observed in Table 6 and the examples in (13), (14) and (15), very few examples of the word order patterns Adj-Art/Dem-N and Adj-Poss-N are attested in the corpora, and the relevant kinds of adjectives are very restricted. Therefore, it is concluded that adjectives in early English behave like those in PE, normally following articles/demonstratives and possessive pronouns.<sup>5</sup>

#### 2.2.2.2. Double Determiners

Let us consider the case of double determiners where articles/demonstratives and possessive pronouns cooccur within a single noun phrase, as shown in (16).

(16) a. *mid his þam anwealde*

*with his that-Dat authority-Dat*

(Bo 69.23)

b. *seo his gemæne spræc*

*this-Nom his common conversation-Nom*

(GD(H)150.32)

(Mitchell (1985: 52))

The word order patterns in (17) was searched in YCOE, PPCME2 and PPCEME, and it yielded the results summarized in Table 7.

(17) a. Art/Dem - Poss - N

b. Poss - Art/Dem - N

**Table 7**

	Art/Dem - Poss - N	Poss - Art/Dem - N	Total
YCOE	187 (74.5%)	64 (25.5%)	251
PPCME2	4 (80%)	1 (20%)	5
PPCEME	129 (100%)	0 (0%)	129

What is noticeable here is that the number of examples with the order Poss-Art/Dem-N drastically decreases in ME, and finally no examples are attested in EModE. The order Art/Dem-Poss-N, on the other hand, is still frequently observed in EModE, and it survived until the beginning of the 20th century (see section 2.4). An immediate question here is why the order Poss-Art/Dem-N disappeared in the history of English earlier than the order Art/Dem-Poss-N. This can be attributed to the peculiar behavior of possessive pronouns in the history of English, which will be discussed at length in section 4.

### **2.2.2.3. The Distribution of Double Determiners and Adjectives**

Finally, consider the more complicated cases where articles/demonstratives, possessive pronoun and adjectives cooccur within a single noun phrases. Since very few examples are attested in YCOE, PPCME2 and PPCEME where adjectives precede articles/demonstratives or possessive pronouns in the initial position of noun phrases (see Table 6), only the following word order patterns was examined.

- (18) a. Art/Dem - Poss - Adj - N  
       b. Art/Dem - Adj - Poss - N

- c. Poss - Art/Dem - Adj - N
- d. Poss - Adj - Art/Dem - N

Table 8 shows the distribution of (18a, b) in the three corpora where articles/demonstratives precede the other elements within noun phrases.

**Table 8**

	Art/Dem - Poss - Adj - N	Art/Dem - Adj - Poss - N	Total
YCOE	18 (45%)	22 (55%)	40
PPCME2	1 (50%)	1 (50%)	2
PPCEME	42 (76.36%)	13 (23.64%)	55

It seems that adjectives may precede or follow possessive pronouns when they follow articles/demonstratives, which is interesting because adjectives cannot precede possessive pronouns in the absence of articles/demonstratives, as we saw in Table 6. Below, I provide examples of each pattern.

- (19) a. *se heora halga bisceop*  
the-Nom their saint-Nom Bishop-Nom  
(coblick,LS\_25\_[MichaelMor[BlHom\_17]]:201.88.2578:o2)
- b. *this my excellent remedy* (CLOWES-E2-P1,45.241:e2)
- (20) a. *þam ylcan his nefan*  
the-Dat same-Dat his nephew-Dat  
(cogregdC,GD\_1\_[C]:9.64.11.717:o2)

- b. the *honourable* *my* verie good mother  
the honorable my very good mother

(TBARRING-E2-P1,96.30:e2)

Table 9 shows the distribution of (6c, d) in the three corpora where possessive pronouns are in the leftmost position within noun phrases, preceding articles/demonstratives and adjectives.

**Table 9**

	Poss - Art/Dem - Adj - N	Poss - Adj - Art/Dem - N	Total
YCOE	241 (100%)	0 (0%)	241
PPCME2	0 (0%)	0 (0%)	0
PPCEME	0 (0%)	0 (0%)	0

We observed in Table 7 that only one example of the order Poss-Art/Dem-N is attested in ME and there are no such examples in EModE. Table 9 shows that no examples are found in PPCME2 and PPCEME where possessive pronouns precede articles/demonstratives. However, it should be noticed that even in OE, the order Poss-Adj-Art/Dem-N is never attested, in contrast to as many as 241 examples of the order Poss-Art/Dem-Adj-N. Some of the latter examples are given in (21).

- (21) a. his þone readan gim  
his that-Acc red-Acc jewel-Acc

(coblick,HomU\_18\_[BIHom\_1]:9.125.121:o2

- b. min    þæt            unrote    mod  
       my    that-Nom    sad-Nom    mind-Nom

(cogregd,GDPref\_and\_3\_[c]:33.243.3444:o2)

- c. his    þæt            berhte    leoht  
       his    that-Acc    bright-Acc    light-Acc

(comart3,Mart\_5\_[Kotzor]\*Ma26,A.17.485:o2)

### 2.2.3. Summary

In this section, we have investigated the distribution of quantifiers, articles/demonstratives, possessive pronouns and adjectives within noun phrases in the history of English. In section 2.2.1, we found that the distribution of quantifiers, which are classified into predeterminers, central determiners and postdeterminers, is basically the same in PE and early English. Based on the fact that their positions have been fixed throughout the history of English, it would follow that the determiner system as in Table 1 was already established in the OE period, at least for quantifiers.

Section 2.2.2 discussed the case of double determiners. We observed that the relevant order between articles/demonstratives and possessive pronouns was free in OE, but the former could only precede the latter in ME and EModE, as shown in Tables 7, 8 and 9. In cases where they cooccur with adjectives, the relative word order among these three elements within a noun phrase is as follows: (i) adjectives cannot precede articles/demonstratives, (ii) adjectives cannot precede possessive pronouns in the absence of articles/demonstratives, (iii) adjectives can precede possessive pronouns and vice versa when articles/demonstratives precede both of them, and (iv) when possessive pronouns precede articles/demonstratives in OE,

adjectives cannot intervene between them. Then possible word order patterns of elements within noun phrases in early English can be summarized in (22).

- (22) a. Art/Dem - (Adj) - N  
b. Poss - (Adj) - N  
c. Art/Dem - (Adj) - Poss - (Adj) - N  
d. Poss - Art/Dem - (Adj) - N (only in the OE period)

After reviewing previous studies in section 2.3, we will provide a syntactic analysis of the word order patterns in (22) in section 2.4, arguing that the variety of word order patterns of elements within noun phrases is attributed to the unique behavior of possessive pronouns in early English, with the rest of the determiner system unchanged in the history of English. Concretely, it will be argued that the base-generated position of possessive pronouns was lower than that of articles/demonstratives in early English, and that they have been grammaticalized and finally become a central determiner by PE. This would imply that the structure of noun phrases has been constant in the history of English with articles/demonstratives occupying the head of DP as central determiners, thus arguing against Yamamoto's (1989) and Osawa's (2000) view that the functional category D was absent in early English.

### **2.3. Previous Studies on Noun Phrases in Early English**

Before discussing the structure of noun phrases and the determiner system in early English, let us review some previous studies on noun phrases in early English.

### 2.3.1. Fischer and Wurff (2006)

Fischer and Wurff (2006) summarize the determiner system and the positions of quantifiers in early English, as shown in Table 10.

**Table 10**

Changes in:	Old English	Middle English	Modern English
<b>determiners:</b> system	articles present in embryo-form, system developing	articles used for presentational and referential functions	also in use in predicative and generic contexts
double det.	present	rare	absent
<b>quantifiers:</b> position of	relatively free	more restricted	fairly fixed

(Fischer and Wurff (2006: 111))

They observe that double determiners had been found until early ME but soon thereafter died out in common usage, because possessive pronouns came to be treated as central determiners. They also note that the positions of quantifiers were relatively free within noun phrases in OE, and they gradually became fixed as time passed, citing the following examples in which *each* and *any*, which are classified as central determiners, occur before another central determiner.

(23) a. *ælc an hægelsan*

each a hailstone

(HomU36(Nap45)51)

b. *ony the other eyght*

any the other eight

(Caxton's Preface, Vinaver, 1967: cxii, 6)

c. *sume þa englas*

some the angels

(ÆCHomI, 7 236.147)

(Fischer and Wurff (2006: 120-121))

However, their observations are incompatible with the results of the investigation in the previous section: the distribution of quantifiers in early English was basically the same as that in PE, and double determiners were still attested in EModE. Thus, Fischer and Wurff's observation summarized in Table 10 is not tenable, and it must be concluded that examples like (23) were extremely rare.<sup>6</sup>

### 2.3.2. Mitchell (1985)

Following Carlton (1958), Mitchell (1985) observes six positions for elements within noun phrases in OE, as shown in Table 11.



**Table 11**

6th	5th	4th	3rd	2nd	1st	Head word
Position	Position	Position	Position	Position	Position	(noun)
(eall, sum, manig)	(pron.)	(numeral)	( <i>oþer</i> )	(adj. and part.)	(noun in gen. case)	
	þære			geættredan	deofles	lare
		an	oþer	healf		gear
		ænne		blacne		stedan
	þæm	þriim				dælum
	min	twa				wergeld
	þa		oþoro			lond
mænig			oþer	god		man
allum	þæm					halgum
ealle	his			leofan		halgan
sum	þæt					lond
ealle	mine					freondum
			oþrum	sue miclum		lande

(Mitchell (1985: 68))

Mitchell suggests that the summary in Table 11, which comes from the investigation conducted by a limited corpus, is not sufficient to show the word order patterns in OE in that for example, it does not involve double determiners like (24).

(24) his ðære haligran unlu[st]

his that-Dat holy-Dat distress

(Birch 452.23(Ch204))

‘his holy distress’

(Mitchell (1985: 69-70))

As for double determiners in OE, Mitchell suggests that when both a demonstrative

and a possessive pronoun occur in position 5, each element can be precede or follow the other.

Therefore, focusing on the behavior of adjectives, Mitchell (1985) observes the possible word order patterns among adjectives, possessive pronouns and demonstratives within noun phrases in OE, which are summarized in (25).

- (25) a. Poss - Dem - (Adj) - N  
b. Dem - Poss - Adj - N  
c. Poss - Adj - N  
d. Dem - Adj - N  
e. *an/sum*/adjective denoting quantity or number - Adj- N

It should be noted that the cooccurrence of demonstratives and possessive pronouns is possible, but adjectives do not precede these elements, as opposed to the observations by Carlson (1978), Lightfoot (1979) and Yamamoto (1989), which will be discussed below.

However, it seems that Mitchell's observation does not suffice to accommodate the results of the investigation in the previous section, in that it does not cover the order Art/Dem-Adj-Poss-N that was available from OE to EModE (see Table 8).

### 2.3.3. Lightfoot (1979)

Following Carlson (1978), Lightfoot (1979) argues that elements in noun phrases such as *all*, *any*, *both*, *each*, *every*, *few* were once adjectives and were reanalyzed as a new category of quantifier in the late sixteenth century. If they were adjectives, OE quantifiers are supposed to have been subject to fewer restrictions than in PE. In

order to support their claim, Carlson and Lightfoot give examples in (26), where OE quantifiers follow articles/demonstratives and possessive pronouns within a single noun phrase.

- (26) a. in þe al worlde  
in the all world (1297 R.Glouc. 367)
- b. our bathen slogh  
our both slough (14c. Cursor M.. 1254)
- c. the bothe endes  
the both ends (1430 Bk. Hawkyng in Rel. Ant. I 297)
- d. leue your not this eich one.  
leave your not this each one (a.1500 Miracle Plays (1938) 17)
- e. your some sweete smiles  
your some sweet smiles (1589 Pottenham, Eng. Poesie (Arb.))
- g. your either person (1615 Chapman, Odyss. IV 79)
- (Lightfoot (1979: 173))

Lightfoot argues that the most common position for an adjective is between determiner and noun, and the OE quantifiers could also occur the same position until the seventeenth century. However, it has been observed in Tables 3, 4 and 5 that examples like (26) are extremely rare in early English, so their claim based on the data like in (26) is quite dubious.

Lightfoot claims that most adjectives were free to occur prenominally, giving the example in (27) for instance.

- (27) a. of    *inneweardre*    his    heortan  
           from within            his    heart
- b. hæleð    *min*    *se*    lefa            freond  
           men        my       the    beloved    friend                      (Lightfoot (1979: 170))

In (27), the adjective *inneweardre* precede the demonstrative and the possessive pronoun. However, as discussed in section 2.2.2.1, we have observed that very limited kinds of adjectives, involving those with *weard*, could precede articles/demonstratives, and have made the conclusion that such adjectives are exceptional.

Based on the examples in (26) and (27), Lightfoot claims that adjectives in OE, involving quantifiers, either preceded or followed articles/demonstratives and possessive pronouns before the head noun. But, it seems that his claim is not tenable since the data presented here is very marginal.

#### 2.3.4. Yamamoto (1989)

Similarly to Carlson (1978) and Lightfoot (1979), Yamamoto (1989) observe that adjectives were free to occur before or after demonstratives and possessive pronouns in early English. According to her, the word order patterns shown in (2), which are repeated in (28), were possible in early English, as shown in (29)-(31).

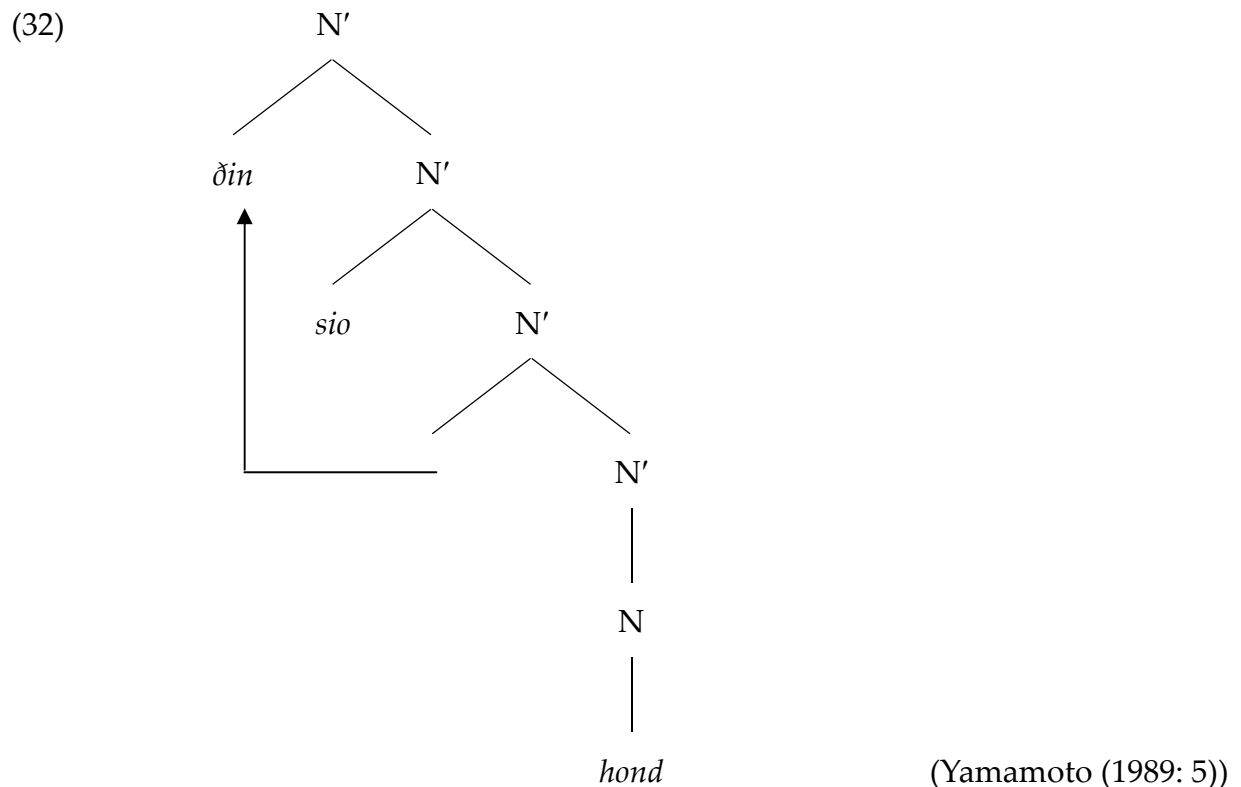
- (28) a. \*good the king (cf. the good king)  
       b. \*old my friends (cf. my old friends)  
       c. \*that his book / \*his that book

- (29) a. *mid sele þan kinge*  
           with good the king  
           ‘with the good king’ (Lawman-Lightfoot)
- b. *sweet my child* (Love I ii 68)  
           (Yamamoto (1989: 3))
- (30) a. *Hie þa lærde se hera halga bisceop*  
           them then instructed that their holy bishop (BlHom 201.24)
- b. *this his distemper he is in now* (Wives IV ii 28)  
           (Yamamoto (1989: 3-4))
- (31) a. *Ne cwæð he no ðin sio winestre hond,*  
           not said he no your that left hand  
           *ac ðin sio swiðre*  
           but your that right  
           ‘He did not say ‘your left hand, but your right’ (CP 389.20)
- b. *mid hire þære yfelan sceonesse & fecne*  
           with her that evil suggestion treachery  
           ‘with her evil suggestion and treachery’ (BlHom 5.1)  
           (Yamamoto (1989: 5))

Yamamoto treats examples like (31) differently from those in (29) and (30): while the adjectives, demonstratives and possessive pronouns occupy their base-generated positions in (29) and (30), the possessive pronouns in (31) are base-generated in a lower position than the demonstratives and are then topicalized to yield the surface word order.

According to her, examples like (29) and (30), which are disallowed in PE, were

often observed in OE because the structure of noun phrases in early English was different from that in PE.



Adopting the ideas of Fukui (1986, 1988), Yamamoto assumes the structure of noun phrases in early English as in (32), where N projects up to the single-bar level and allows the iteration of that level with no specifier. Fukui develops a system which distinguishes English and Japanese determiner systems. Concretely, functional categories may project up to the double-bar level and have the specifier which closes off their projection whereas lexical categories project up to the single-bar level without specifiers. PE has the functional category D of articles in NP, while Japanese does not. Thus, unlike English, Japanese has no articles, allowing examples like (33).<sup>7</sup>

(33)      kare-no   sono   akai   kuruma

         he-Gen   that   red   car

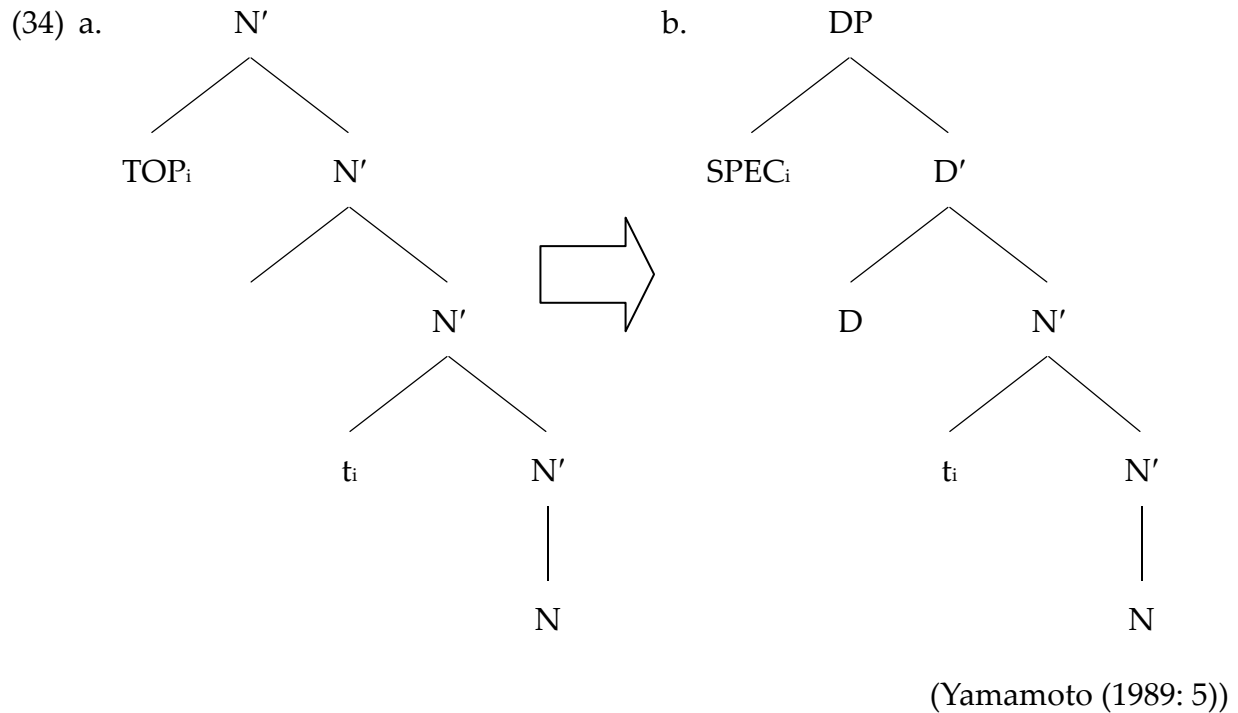
         ‘that red car of his’

(Yamamoto (1989: 1))

Based on the examples like (29)-(31), it is claimed that at the earliest stage, English demonstratives and genitives/possessive pronouns were generated at the repeated N' level without closing off the projection.

In cases where possessive pronouns precede demonstratives, they are topicalized to adjoin to N', as illustrated in (32). She also argues that in early English, demonstratives and possessive pronouns were not distinct from adjectives generated at the N' level, and the relative order of elements within noun phrases was determined by semantic and pragmatic factors.<sup>8</sup> This is the reason why the examples in (29)-(31) were allowed in early English.

According to her, the functional head D has emerged and the structure of noun phrases has become DP in the history of English, with the result that the word order of elements is fixed within noun phrases in PE. She proposes that the structure of noun phrases has changed from (32) to (34a, b).



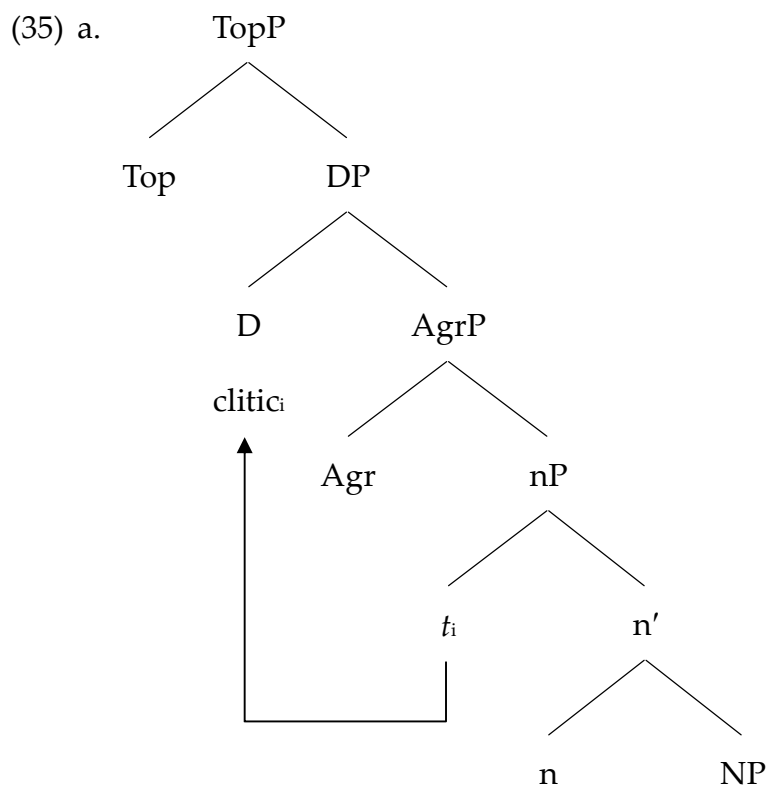
In early English, genitives/possessive pronouns are moved in NP for the reason of topicalization, as illustrated in (32) and (34a). Further change produces (34b), where the topic position was reinterpreted as the specifier position.

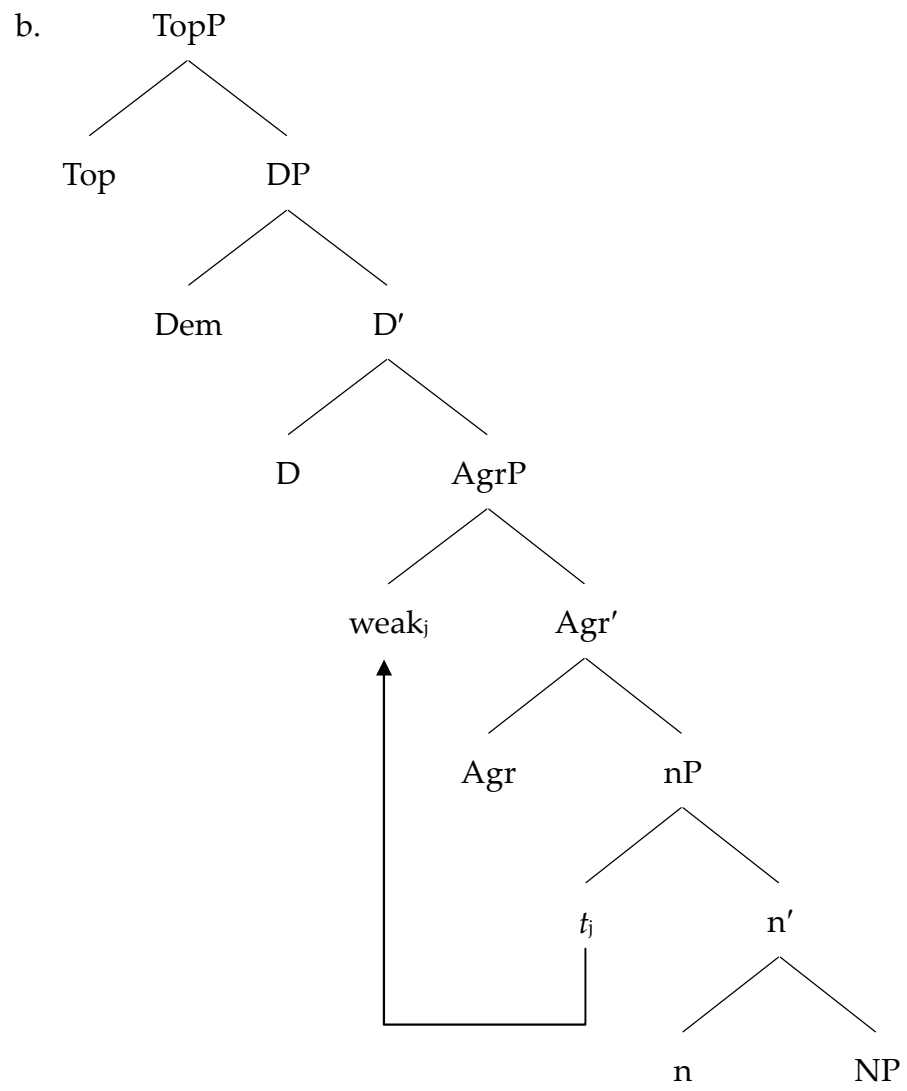
In Table 6, it was observed that adjectives basically cannot be in the leftmost position when they cooccur with either demonstratives or possessive pronouns. This fact is not compatible with Yamamoto's observation that adjectives could freely precede demonstratives and possessive pronouns in early English. Moreover, her analysis predicts that elements within noun phrases are free to appear at the N' level and their relative word order depends on semantics and pragmatics. However, it does not properly capture the distributional facts in Tables 7, 8 and 9: the pattern Poss-Art/Dem-(Adj)-N died out much earlier than the pattern Art/Dem-(Adj)-Poss-(Adj)-N, and adjectives could only precede possessive pronouns in the presence of articles/demonstratives.

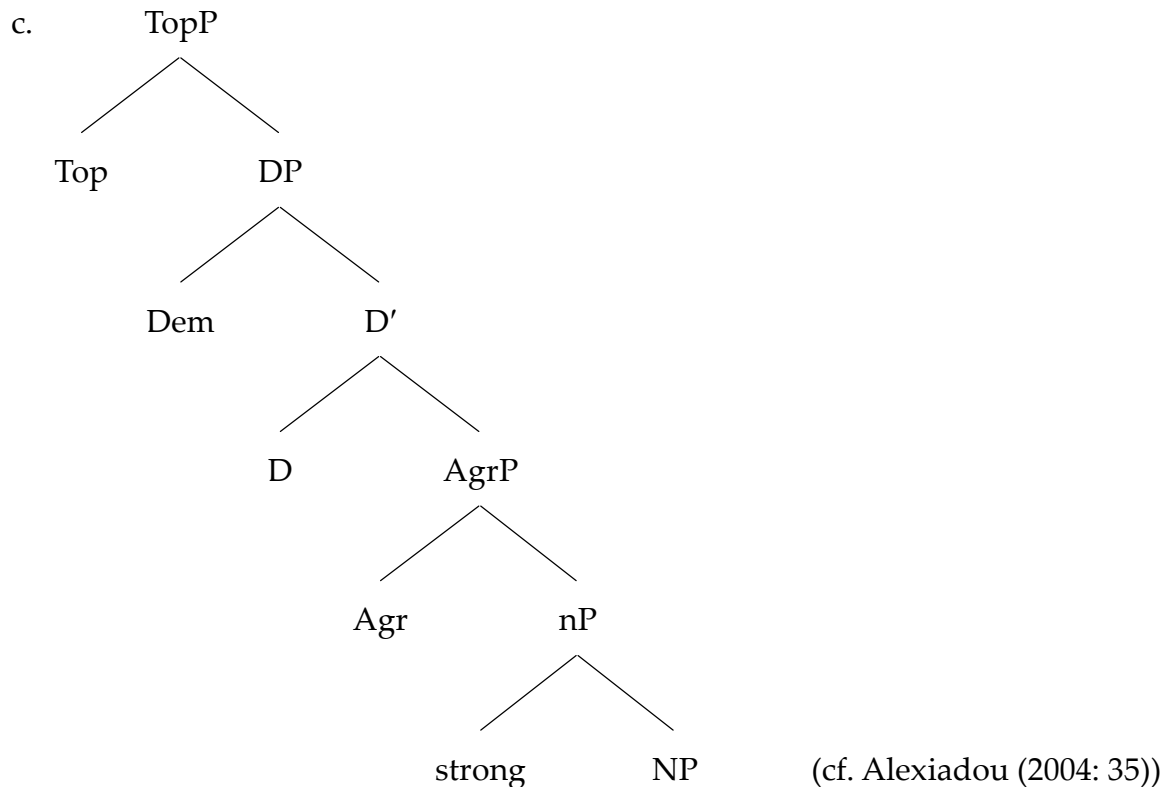


### 2.3.5. Alexiadou (2004)

Alexiadou (2004) discusses the development of possessive pronouns, adopting Cardinaletti's (1998) tripartite division of pronouns into clitic, weak and strong pronouns. She argues that possessive pronouns in PE are clitics whereas those in early English were either strong or weak adjectives, and that they are both base-generated in Spec-nP, giving the structure of noun phrases in (35).







According to her, clitic possessive pronouns move to the head of DP, weak possessive pronouns move to Spec-AgrP and strong possessive pronouns remain in Spec-nP. She argues that weak possessive pronouns move to Spec-TopP when they cooccur with adjectives within a single noun phrases, because adjectives occupy Spec-AgrP, competing with weak possessive pronouns for the same position.

Alexiadou presents four criteria to support her analysis of possessive pronouns, i.e. possessive pronouns were weak adjective in early English. First, she argues that much like adjectives, possessive pronouns generally precede the head noun, giving examples below.

- [illegible]

The second criterion is that OE possessive pronouns could cooccur with definite and indefinite determiner-like elements, i.e. demonstratives and the numeral *one*; in (37) the possessive occurs with a demonstrative and in (38) it occurs with a numeral.

(37) a. Hie þa lærde se heora halga bisceop  
 they there taught the their holy bishop  
 ‘they taught their holy bishop’ (Ælfrics Life of Saints 36.83)

b. þes min gefea is gefylled  
 this my joy is extinct  
 ‘my joy is extinct’ (John 3.29)  
 (Alexiadou (2004: 39))

(38) þær after (...) wearþ se cyng Willelm on  
 that after was the king William on  
 huntnoþe fram his anan men (...) ofsceoten  
 hunt by his one man slain  
 ‘that later King William was hunted by one servant slain’  
 (Saxon Chronicle 1562/1100.6)  
 (Alexiadou (2004: 40))

Third criterion is the rather free behavior of OE possessive pronouns: they could either precede or follow an adjective when they cooccurred within a single noun phrase, as shown in (39).<sup>9</sup>

(39) a. & lǣdaþ eowerne gyngstan broðer to me, þæt ic  
 and guide your youngest brother to me that I  
 wite þæt ge sceaweras ne sind  
 know that you are no spies  
 ‘and your youngest brother guide me to know that you are not spy’  
 (Genesis 42.34)

b. of inneweardre his heortan  
 from inside his heart  
 ‘from the more inner of his heart’ (Alexiadou (2004: 40))

Forth, Alexiadou observes the correspondence of inflectional morphologies between possessive pronouns and adjectives in the same context. As is well known, possessive pronouns carried relatively rich inflectional endings in OE, as summarized in Table 12.

**Table 12** Old English possessive pronoun 1st person *mîn*

	Singular			Plural		
	masc.	fem.	neuter	masc.	fem.	neuter
Nom.	ϕ	-u, -o	ϕ	-e	-a, -e	-u, -o
Gen.	-es	-re	-es	-ra	-ra	-ra
Dat.	-um	-re	-um	-um	-um	-um
Acc.	-ne	-e	ϕ	-e	-a, -e	-u, -o

(Alexiadou (2004: 39))

According to her, as shown in (40a), possessive pronouns show strong inflection in

predicative contexts, as is the case with other adjectives used in the same context (40b).

- (40) a.   &     min-*o*   alle   ðin-*o*   sint     &     ðin-*o*   min-*o*   sint  
          and   mine   all    yours   are     and    yours   mine   are  
          ‘and what’s yours are mine, and what’s mine is yours’

(John 17.10)

- b.   Durh     godes     gife     ge     sind    gehealden-*e*  
          through God’s   gift     you    are    frugal  
          ‘through God’s gift, you are frugal’

(Ælfrics Homilies II.31 295.239)

(Alexiadou (2004: 40))

From these descriptions above, she concludes that possessive pronouns were adjectives in OE.

Considering possessive pronouns in OE as adjectives, Alexiadou summarizes the word order patterns within noun phrases as illustrated in (41).

- (41) a.   possessive – noun  
      b.   noun – possessive  
      c.   demonstrative - possessive – noun  
      d.   demonstrative - possessive - adjective - noun  
      e.   possessive - demonstrative - (adjective) - noun  
      f.   demonstrative - noun – possessive

(Alexiadou (2004: 41))

The presence of the word order pattern (41a), she argues, suggests that possessive pronouns are clitics in Cardinaletti's sense since they precede the head noun and do not require determiner. The word order pattern (41c), on the other hand, suggests that possessive pronouns in OE also served as weak adjectives because they follow demonstratives. The word order pattern (41a) seems to appear later than (41c); in Gregory's dialogue, some demonstratives that are present in the earlier version, are missing in some later version as illustrated in (42).

- Alexiadou further observes that demonstratives are not removed on every occasion. Consider the examples in (43).

- 42

- c. *þære* his wædle  
that his poverty

(GREGD3,57.10)

(cf. Alexiadou (2004: 43))

According to her, the demonstrative *se* in the example (43a) was taken away in the later version whereas *þæt* in (43b) and *þære* in (43c) are retained in the newer version. These distribution in (42) and (43) suggest that the word order patterns (41a) and (41c) are considered equivalent in OE.

As for the word order pattern (41e), where possessive pronouns precede a demonstrative, she suggests that possessive pronouns are topicalized and moved to Spec-TopP.<sup>10</sup>

So far, we have reviewed Alexiadou's analysis, and it seems to have some problems in explaining the word patterns in (22), which are repeated here as (44).

- (44) a. Art/Dem - (Adj) - N  
b. Poss - (Adj) - N  
c. Art/Dem - (Adj) - Poss - (Adj) - N  
d. Poss - Art/Dem - (Adj) - N (only in the OE period)

First, according to her analysis, the order in (44d) is possible only when adjectives are present, but as many as 64 examples of the order Poss-Art/Dem-N are attested in YCOE, as we saw in Table 7. Second, her analysis predicts that the order Art/Dem-Poss-Adj-N will never be attested because weak possessive pronouns obligatorily move to Spec-TopP whenever adjectives are present within a single noun phrase, contrary to the results of the investigation in Table 8. Third, like Yamamoto



(1989), her analysis would yield the impossible order Adj-Poss-N, if adjectives cooccur with strong pronouns which remain in Spec-nP.

### **2.3.6. Summary**

There is a consensus among the previous studies reviewed above that articles/demonstratives and possessive pronouns could cooccur in early English, but the relative word order among articles/demonstratives, possessive pronouns and adjectives is controversial, and no previous studies can properly capture all the possible word order patterns attested in the investigation in section 2.2. Moreover, it was pointed out that the generative analyses of noun phrases in early English proposed by Yamamoto (1989) and Alexiadou (2004) have serious empirical problems.

In the next section, based on the conclusion in section 2.2 that the word order of elements within noun phrases in early English is basically the same as in PE except for possessive pronouns, I argue that the variety of the word order patterns shown in (22) is attributed to the unique behavior of possessive pronouns in early English. There has been no emergence of the functional category D, nor any change in the structure of noun phrases, in the history of English: the determiner system equivalent to that in PE was already established in OE, except for possessive pronouns, which grammaticalized into central determiners during LModE.

## **2.4. Explaining the Distribution of Elements within Noun Phrases**

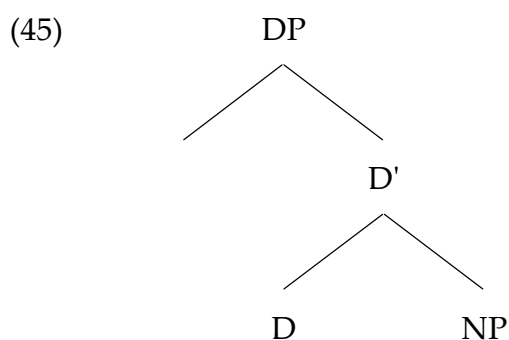
This section provides a syntactic analysis of the distribution of elements within noun phrases in the history of English. As observed in section 2.2, the distribution of quantifiers which are classified into predeterminers, central determiners and

postdeterminers is basically the same in PE and early English, and the word order variations involving articles/demonstratives, possessive pronouns and adjectives fall under the limited patterns shown in (22). I argue that the syntactic status of possessive pronouns in early English was different from that in PE, which made possible the cooccurrence of articles/demonstratives and possessive pronouns within a single noun phrases in early English. I also claim that possessive pronouns were grammaticalized into central determiners during LModE, by examining the relevant data from *The Corpus of Late Modern English Texts* (henceforth, CLMET).

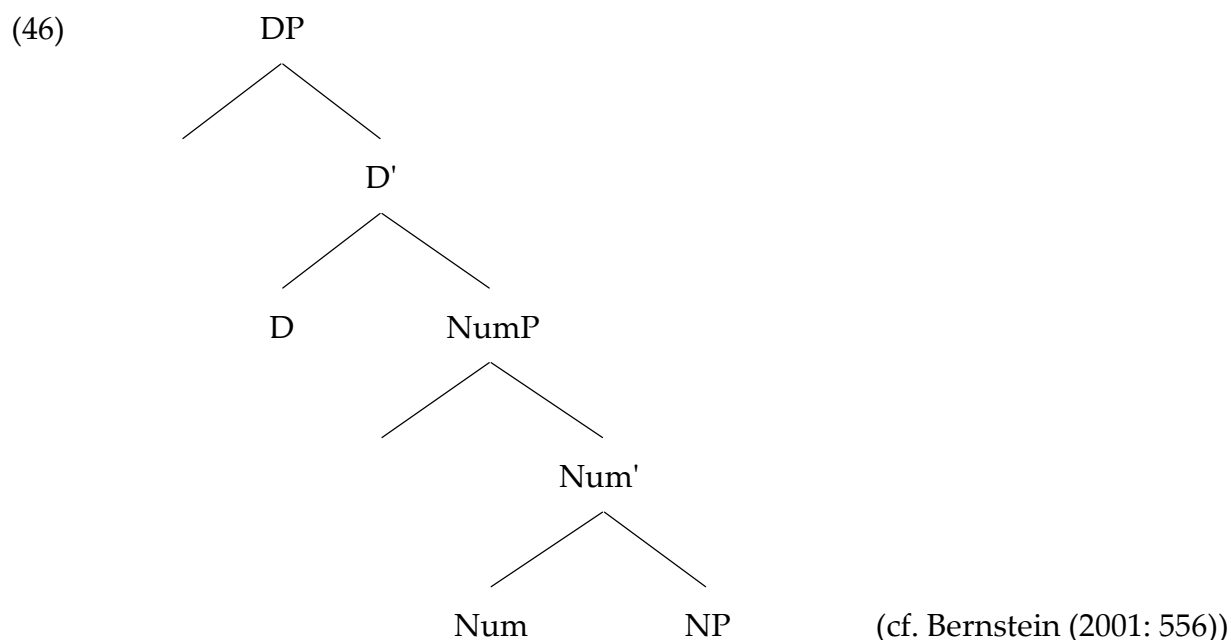
## 2.4.1. The Structure and Licensing of Noun Phrases

### 2.4.1.1. The Structure of Noun Phrases

Before discussing the syntactic properties of elements within noun phrases, let us introduce the DP Hypothesis proposed by Abney (1987). He claims that the category of noun phrases is DP headed by the functional category D, which takes NP as its complement, as shown in (45).



However, it is widely argued that there must be some functional projection(s) between DP and NP (see Ritter (1991), Carstens (2000), Bernstein (2001) and Brugé (2002) among others). Following Ritter (1991) and Bernstein (2001), I assume the

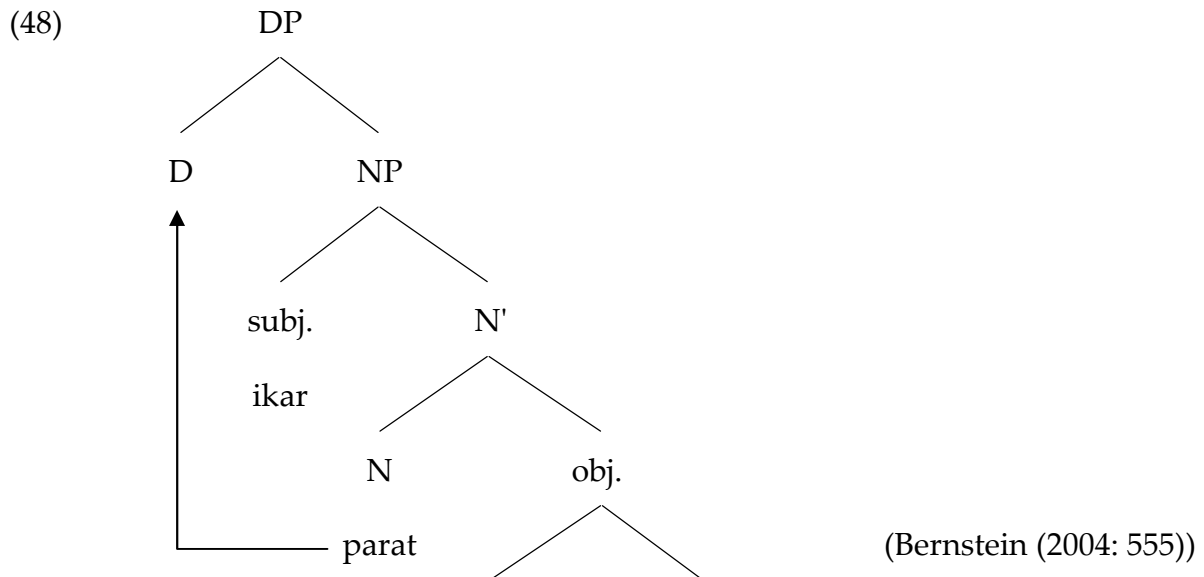


Ritter (1991) seems to be the first to propose a functional projection corresponding to a noun's singular/plural marking. She proposes that NumP is the complement of D, observing that there are two types of genitive in Hebrew, as shown in (47).

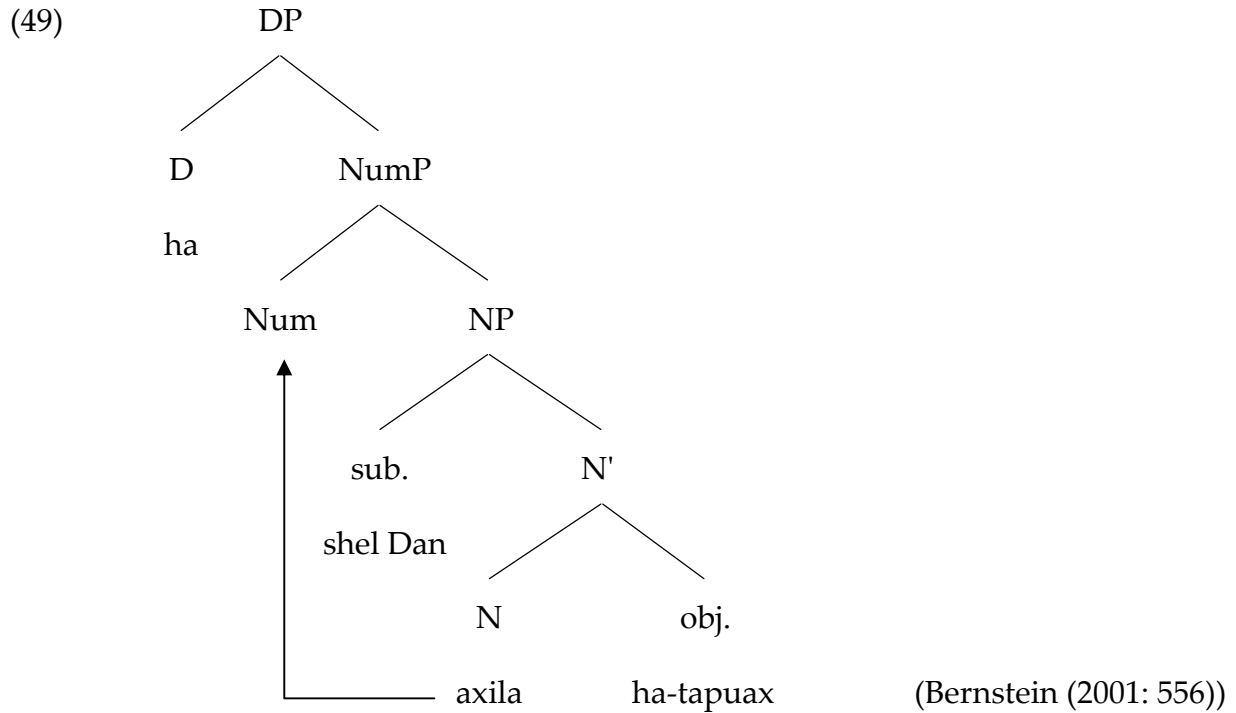
- (47) a. parat      ikar      (Hebrew)  
          cow      farmer  
          ‘a farmer’s cow’
- b. ha-axila      shel    Dan et    ha-tapuax      (Hebrew)  
      the-eating    of      Dan of    the-apple  
      ‘Dan’s eating of the apple’      (Bernstein (2001: 555-556))

The genitive in (47a) is the construct state which consists of a head noun followed by

its possessor. According to her, the noun raises from N to D, crossing over the possessor which occupies Spec-NP. Thus, the structure of examples like (47a) is as in (48).



The other type of genitive in Hebrew, i.e. (47b), is the free stated construction, which has a parallel structure to that of the construct stage genitive. Based on plural formation and word formation processes in Hebrew, the head N also raises in this construction, but the head cannot move to D in this construction because free state noun phrases admit the definite article. Thus, she proposes that the head N must move to a functional head Num intervening between N and D, where the singular/plural features of the noun are encoded, as illustrated in (49).



#### 2.4.1.2. The Licensing Condition on Definite Noun Phrases

Another important assumption adopted here is the licensing condition on definite noun phrases. When noun phrases are definite, they must project DP, the head of which has the [+definite] feature. The definiteness of definite noun phrases is licensed only if the [+definite] feature is checked by a definite material in the local domain of D. Formulating this idea in terms of feature checking, I propose the following licensing condition on definite noun phrases, where elements that can license them include the definite article, demonstratives and possessive pronouns.

- (50) Definite noun phrases are licensed iff the [+definite] feature of D enters into a checking relation with its matching element(s) in a Spec-head and/or a head-head configuration.

This condition on definite noun phrases is reminiscent of Frische's (1997) analysis of

sentential negation, according to which NegP must be licensed by a negative element in its head and/or its specifier position. Although he proposes the implementation of this idea in terms of Speas' (1994) Economy of Projection, his proposal can be recast by assuming that the [+Neg] feature of Neg must enter into a checking relation with its matching element(s). The checking of the [+Neg] feature is also established under a Spec-head and/or a head-head configuration: according to Frisch, NegP is licensed by *ne* in Neg in early ME, *ne* in Neg and/or *not* in Spec-NegP in middle ME and *not* in Spec-NegP in late ME, respectively. Note that in Frisch's analysis there is no prohibition on having both licensing positions in NegP filled in the transitional period when sentential negation was expressed by *ne ... not*. As we will see in the next section, the same seems to be true of definite noun phrases: the order Poss-Art/Dem-(Adj)-N illustrates the case where both the head and specifier positions of DP are filled with definite elements.

## 2.4.2. The Position of Elements within Noun Phrases

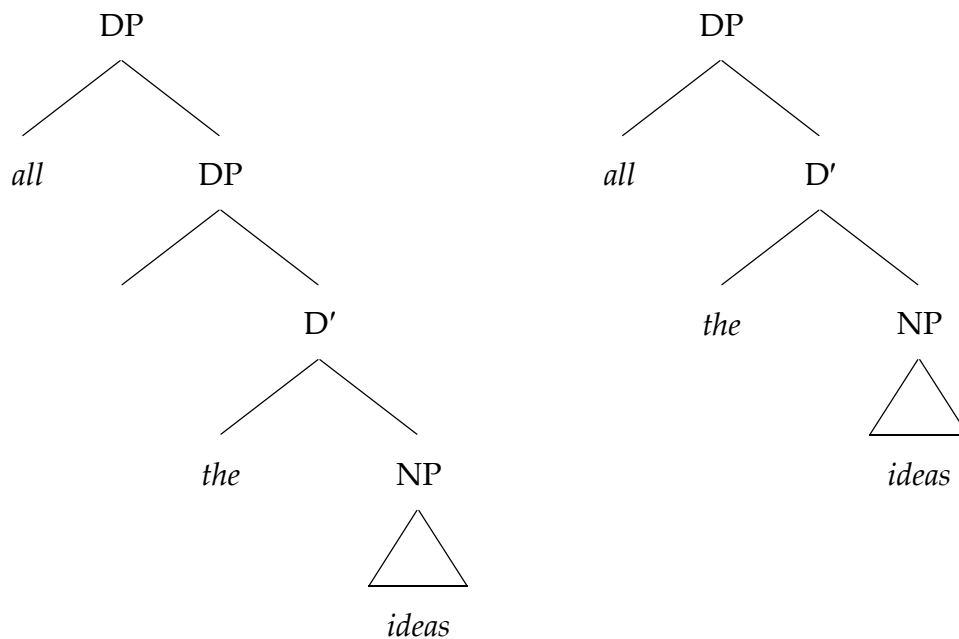
### 2.4.2.1. Quantifiers

Let us consider how quantifiers are positioned in the structure (46). We observed in section 2.2 that the distribution of quantifiers in early English is basically the same as in PE. First, the quantifiers classified as central determiners, namely *every*, *any* and *some*, are taken to occupy the head of DP, because they rarely cooccur with articles/demonstratives throughout the history of English.

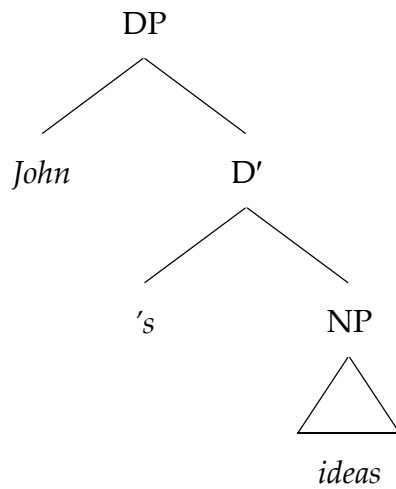
Second, as for the quantifiers classified as predeterminers, namely *all*, *both* and *half*, they typically precede articles/demonstratives in PE and early English, so that their position must be somewhat to the left of articles/demonstratives. Adopting the DP Hypothesis proposed by Abney (1987), Amono (2007) also assumes that the

position of central determiners is the head D. According to him, we have to consider at least two alternatives for positions of predeterminers: Spec-DP and a position adjoined to the entire DP. He argues that if we assume that the apostrophe -s, i.e. -'s, is a head of DP, the former alternative is discarded immediately in some examples but both are plausible in other examples:

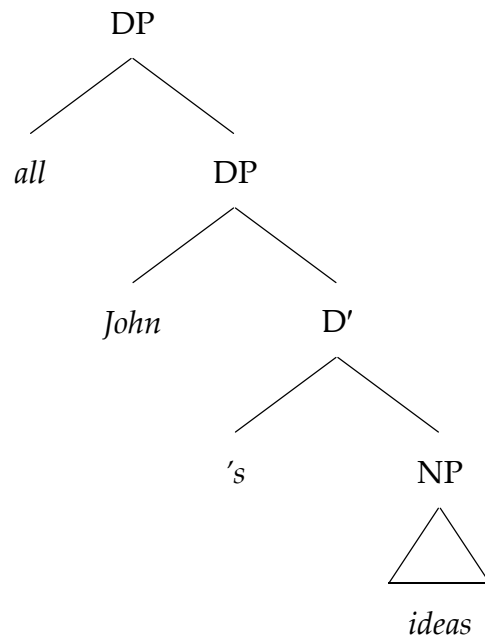
(51) a. all the ideas:



b. John's ideas:



c. all John's ideas:



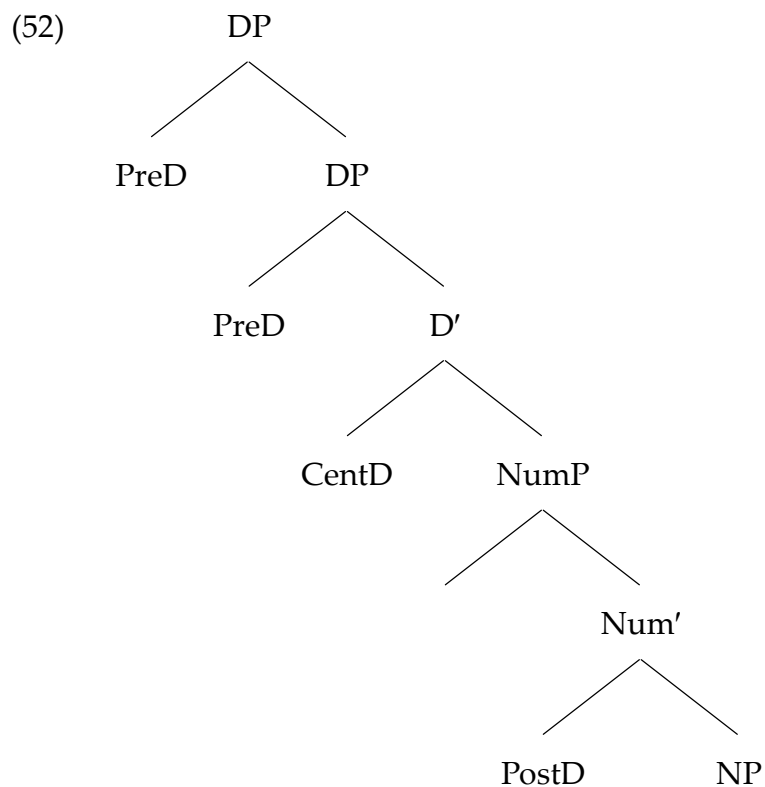
(Amano (2007: 28))

Under the DP Hypothesis, (51b) would be the basic structure where *John* is in Spec-DP and 's is in D as a head. If this is on the right track, *all* cannot appear in Spec-DP in (51c) since this position is already occupied by *John*, and thus it might not be implausible to assume *all* is adjoined to the entire DP in this example. With these in mind, let us consider (51a). The structure (51a) could be ambiguous between the two analyses as indicated; in one analysis *all* is adjoined to DP and Spec-DP is empty, whereas it is located in Spec-DP in the other analysis. The existence of examples like (51b, c) means that both analyses here are correct. Along the lines of Amano's analysis, I assume that predeterminers occupy Spec-DP or are adjoined to DP; the latter option is necessary when another element occupies Spec-DP, as illustrated in (51b).<sup>11</sup>

Third, quantifiers such as *many*, *few* and *several* as well as numerals are classified as postdeterminers, and they appear after central determiners in PE and early



English. Since they are typically associated with the number of the entity denoted by the noun, it is natural to assume that they appear in the head of NumP.<sup>12</sup> Summarizing the discussion of the three classes of quantifiers so far, the structure of noun phrases are schematized as in (52), which has been constant throughout the history of English.



Concerning the licensing condition on the definite noun phrases, the [+definite] feature of D in (52) is checked by either a Spec-head or a head-head relation with a predeterminer or a central determiner, respectively. Note that as mentioned in section 2.4.1.2, there is no prohibition on having both licensing positions filled in cases like (51a). When a postdeterminer occur in definite noun phrases without a predeterminer and a central determiner, it must move to Spec-DP in order to license DP.<sup>13</sup>

#### 2.4.2.2. Articles/Demonstratives, Possessive Pronouns and Adjectives

This section discusses the distribution of articles/demonstratives, possessive pronouns and adjectives within noun phrases, beginning with the word order patterns in (22c, d) available only in early English.

- (22) a. Art/Dem - (Adj) - N  
b. Poss - (Adj) - N  
c. Art/Dem - (Adj) - Poss - (Adj) - N  
d. Poss - Art/Dem - (Adj) - N (only in the OE period)

I argue that the key difference between PE and early English is the syntactic status of possessive pronouns, which in turn allows the cooccurrence of articles/demonstratives and possessive pronouns in early English. This implies that the position of articles/demonstratives is the same in PE and early English: they occupy the head of DP. On the other hand, given the possibility of (22c), I assume that possessive pronouns are base-generated in a lower position than articles/demonstratives in early English: the relevant position is Spec-NumP because possessive pronouns typically precede postdeterminers occupying the head of NumP within a single noun phrase, as shown in Table 13, following by examples from each corpus.

Table 13

	Poss - PostD - N	PostD - Poss - N	Total
YCOE	209 (93.72%)	14 (6.28%)	223
PPCME2	120 (99.17%)	1 (0.83%)	121
PPCEME	173 (98.29%)	3 (1.71%)	176

- |      |    |       |        |          |                                |
|------|----|-------|--------|----------|--------------------------------|
| (53) | a. | heora | twegen | consulas |                                |
|      |    | their | two    | consuls  | (coorosiu,Or_2:5.49.19.950:o2) |
|      | b. | yure  | many   | wordis   |                                |
|      |    | your  | many   | words    | (CMBENRUL,19.668:m3)           |
|      | c. | their | many   | Crimes   | (BOTHPR-E3-P1,21.42:e3)        |

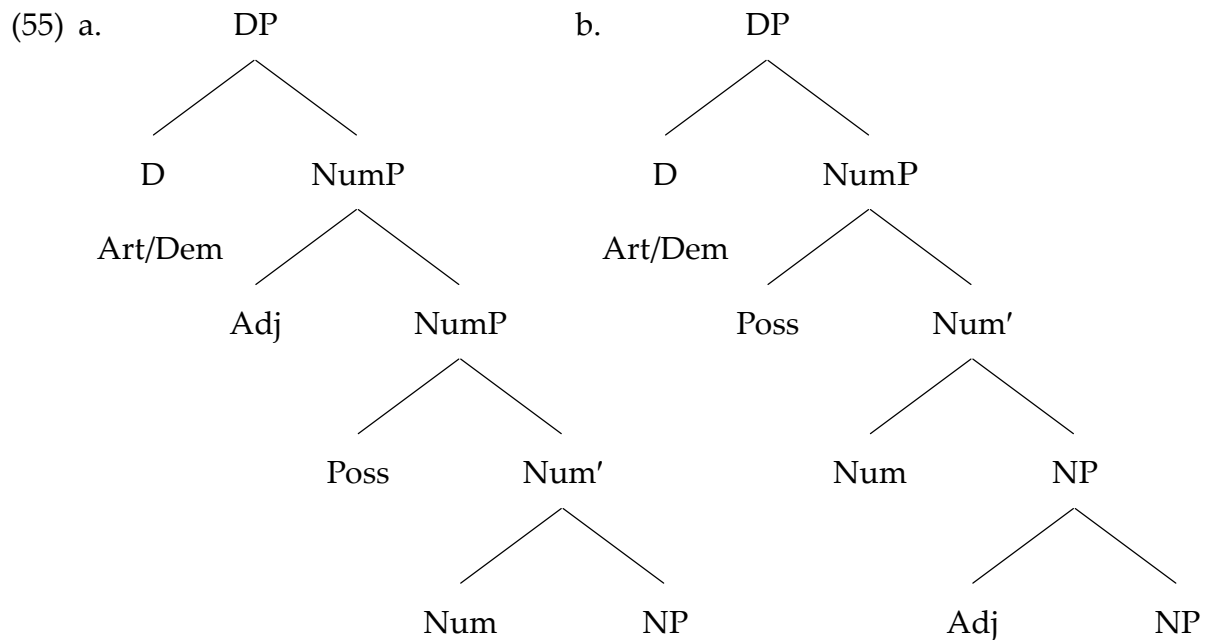
I also assume that adjectives in early English are adjoined either to NP or NumP.<sup>14</sup>

Evidence comes from examples like (54) where they precede postdeterminers.

- (54) a. þam healican tyn bebodum  
those high ten commands  
(colwstan2,æLet\_3\_[Wulfstan\_2]:145.212:o3)
- b. unsmerigne healfne cyse  
not-fatty half cheese  
(colaeece,Lch\_II\_[2]:65.2.6.3416:o2)
- c. the small two quarters  
(STAT-1600-E2-H,IV,1026.14:E2)

If the above arguments are on the right track, there will be two possible underlying structure of noun phrases that involve articles/demonstratives, possessive pronoun and adjectives, depending on whether adjectives are adjoined to NP or NumP, as

shown in (55).



These structures immediately account for the word order Art/Dem-(Adj)-Poss-(Adj)-N in (22c), which had been available until the EModE period. Accordingly, the option of adjoining adjectives to NumP had also been available until EModE, yielding the word order pattern in (54a). It seems that adjectives can be adjoined only to NP in PE, because examples like (54) are ungrammatical. Therefore, it is conjectured that the change in adjunction sites of adjectives happened within noun phrases during LModE.<sup>15</sup> Note that the condition (50) is satisfied in (55) because the [+definite] feature of D is checked under a head-head relation with articles/demonstratives.

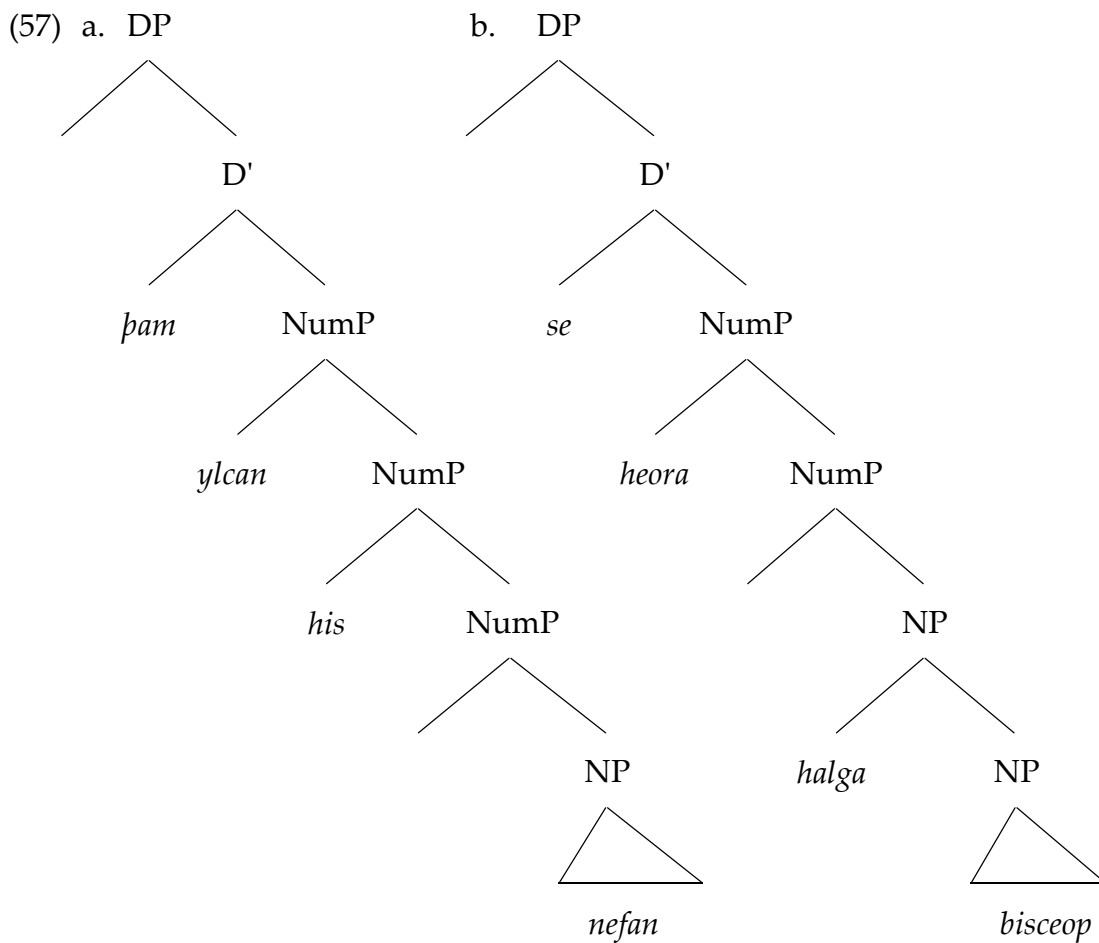
Given the assumptions made here, let us consider the following examples (56), which have the structure as shown in (57).

- (56) a. *þam ylcan his nefan*  
           that same his nephew

(cogregdC,GD\_1\_[C]:9.64.11.717:o2)

- b. *se heora halga bisceop*  
      that their saint bishop

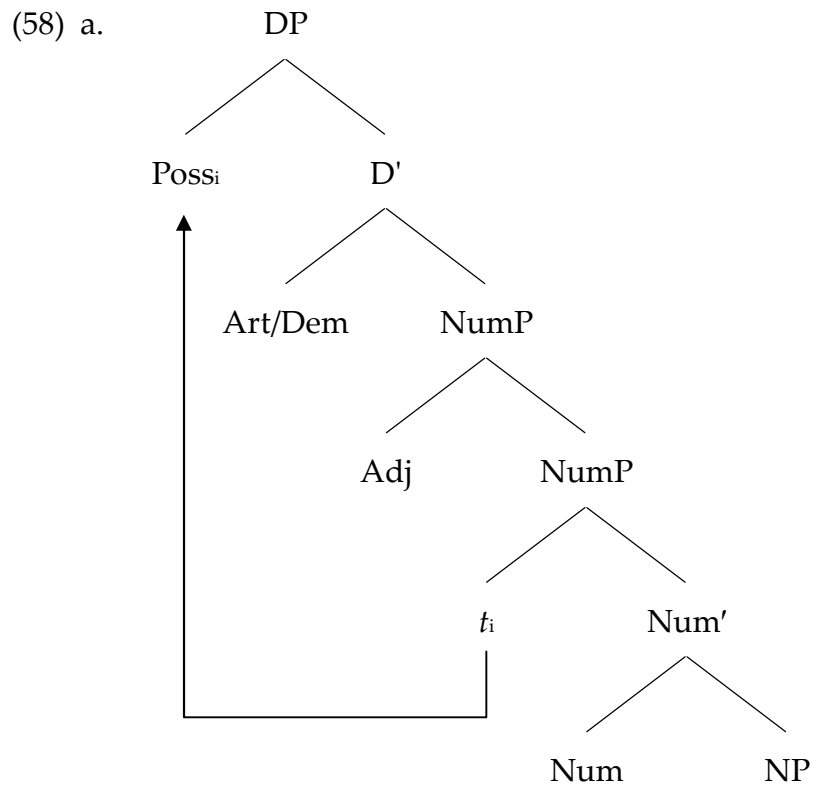
(coblick,LS\_25\_[MichaelMor[BiHom\_17]]:201.88.2578:o2)

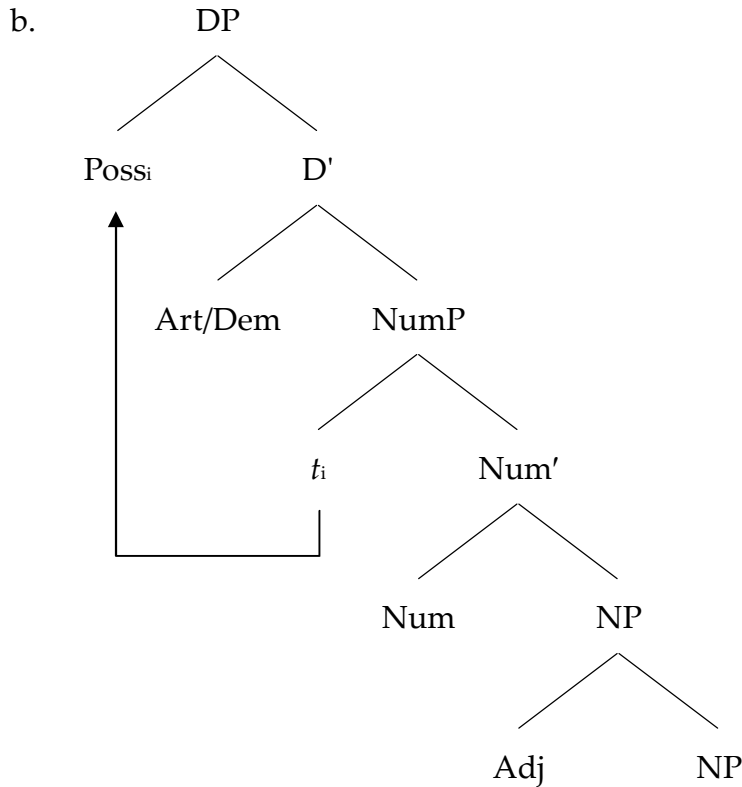


In (57a, b), the demonstratives *þam* and *se* are base-generated in the head of DP and possessive pronouns *his* and *heora* in Spec-NumP. The adjective *ylcan* is adjoined to NumP in (57a) while *halga* is adjoined to NP in (57b). The [+definite] feature of D is checked by the demonstratives in both cases. Thus, the possessive pronouns here,

which are also potential licensors for the [+definite] feature, do not need to move to Spec-DP in these cases.

Next, turning to the order Poss-Art/Dem-(Adj)-N in (22d), suppose that possessive pronouns could optionally move to Spec-DP in OE, as shown in (58).





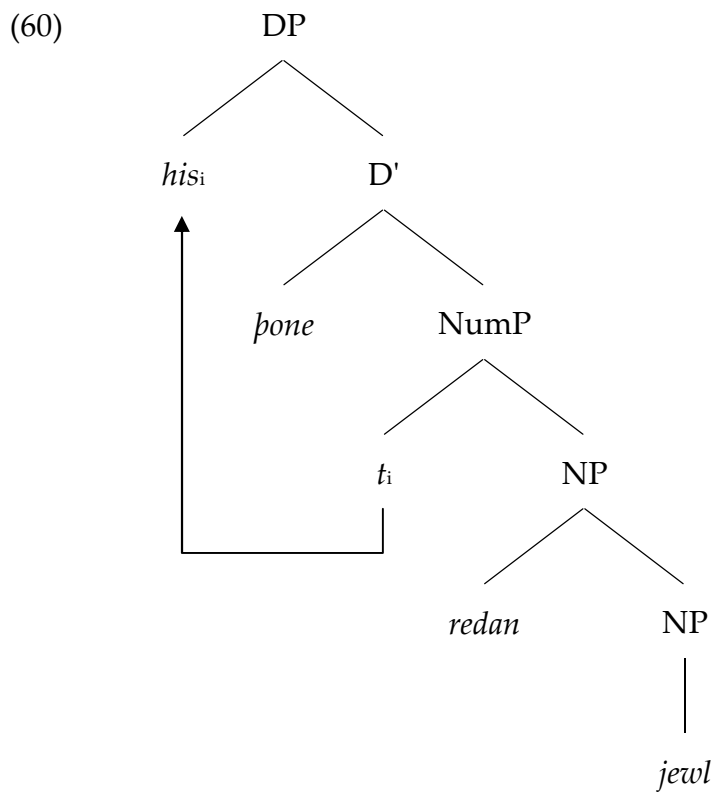
This results in the checking of the [+definite] feature of D, under both a Spec-head and a head-head relations; recall that there is no prohibition on having both licensing positions filled in the case of NegP (Frisch (1997)).<sup>16</sup> This movement analysis accounts for the order in (22d), as well as the fact that when possessive pronouns precede articles/demonstratives, adjectives cannot intervene between them. However, recall from section 2.2 that the relevant word order was lost in the ME period. This means that the movement of possessive pronouns to Spec-DP became impossible. It will be argued in the next section that this is closely related to their grammaticalization.

Now, let us consider the following example from the investigation conducted in the previous section.

- (59)    his        *pone*        readan    gim  
          his        that-Acc   red-Acc   jewl-Acc

(cobilick,HomU\_18\_[BlHom\_1]:9.125.121:o2)

Supposing that the possessive pronoun moves to Spec-DP, the derivation of (59) is as follows.

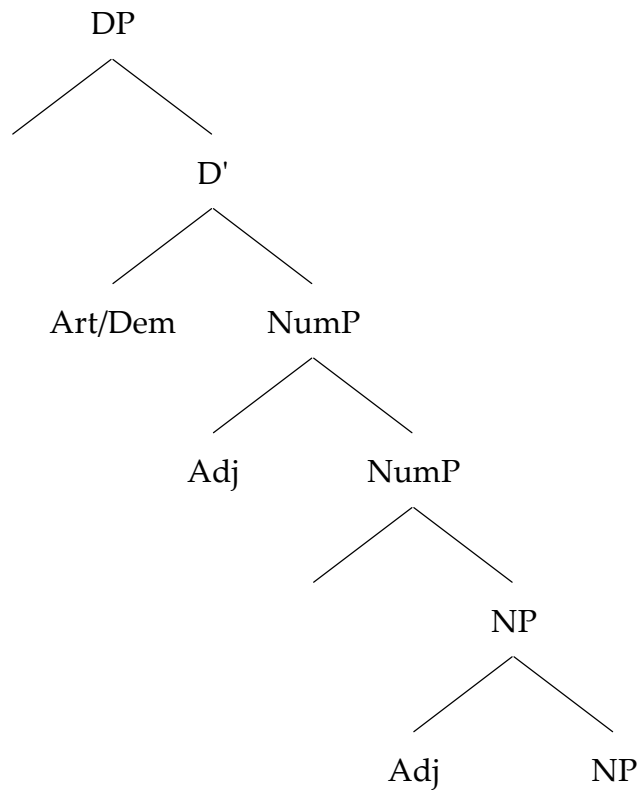


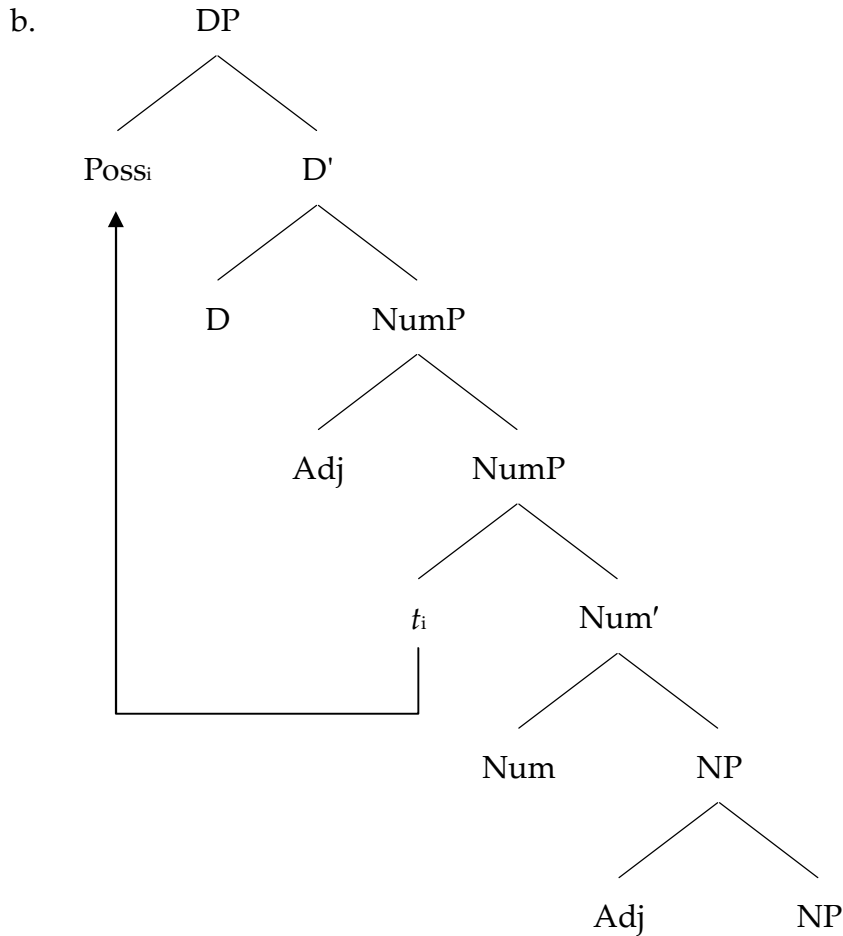
In (60), the demonstrative *pone* and the possessive pronoun *his* are base-generated in the head of DP and Spec-NumP, respectively, and the adjective *red* is adjoined to NP. The possessive pronoun moves to Spec-DP to check the [+definite] feature of D together with the demonstrative *pone*, realizing the word order Poss-Art/Dem-Adj-N. Note that even if the adjective is adjoined to NumP, the same word order pattern is obtained as a result.



Finally, consider the word order patterns in (22a, b). It was observed in Table 6 that adjectives typically follow articles/demonstratives and possessive pronouns when the latter two do not cooccur within a single noun phrase. The structure of (22a, b) are as in (61a, b), respectively.

(61) a.





It immediately follows from the structure (61a) that articles/demonstratives always precede adjectives, regardless of whether adjectives are adjoined to NP or NumP. There, articles/demonstratives serve to check the [+definite] feature of D under a head-head relation. On the other hand, in (61b), possessive pronouns must raise to Spec-DP in order to enter into a checking relation with the [+definite] feature of D in the absence of other matching elements. Hence, the order Poss-Adj-N is derived, regardless of whether adjectives are adjoined to NP or NumP.

### 2.4.3. The Grammaticalization of Possessive Pronouns

This section attempts to clarify the syntactic status and the grammaticalization path of possessive pronouns in the history of English, which influenced their word

order patterns within noun phrases after ME. I argue that the motivation for the grammaticalization of possessive pronouns is economy, in the sense of Gelderen (2004).

#### 2.4.3.1. Gelderen (2004)

Gelderen (2004) argues that grammaticalization is driven by the two economy principles in (62) and (63).

(62) Head Preference or Spec to Head Principle:

Be a head, rather than a phrase. (Gelderen (2004: 11))

(63) Late Merge Principle:

Merge as late as possible. (Gelderen (2004: 12))

Concerning the principle (62), she presents plenty of examples where the position of elements has shifted from a specifier to a head within a single noun phrase in the history of English. One of such examples is the complementizer *that*. She argues that the complementizer *that* occupied Spec-CP in OE, by showing the examples in (64).

(64) a. þa      leton      hy      sume.    þ      þ      mycel      unræd

then    supposed    they    some    that    that    much    folly

wære    þ      hy      togedere      comon

were    that    they    together    came

‘Then some thought that it would be great folly that they should engage  
in battle’

(Anglo-Saxon Chronicle D anno 1052 Thorpe 1861: 314)

- b. forðam      wearð      ylða      bearnum      undyrne      cuð  
therefore    became    to-elders    to-children    no-hidden    known  
gyddum      geomore    *þæt*      *þe*      Grendel    wan  
though-tales    sadly      that      that      Grendel    fought  
hwile    wið      Hroþgar  
while    against    Hrothgar  
'Therefore, all mankind found out in sad tidings that Grendel fought  
against Hrothgar'

(Beowulf 149-151)

(Gelderen (2004: 89-90))

The examples involve the two italicized elements in the CP domain: one corresponds to *that* and occupies Spec-CP, while the other is the particles *þe* and *þ*, which occupy the head of CP. Gelderen argues that the complementizer *that* first appeared in Spec-CP, but changed its position to the head of CP in late OE in accordance with the Spec to Head Principle, leading to the loss of examples like (64).

On the other hand, the principle (63) indicates that it is more economical to wait as long as possible before merging than to merge early and then move. Chomsky (2000, 2001) also shares the same insight as (63), calling it Merge over Move. Gelderen cites the well-known case of grammaticalization of modals as an example resulting from the change from a head to a higher head in accordance with the Late Merge Principle. It is widely known that modals could be used as main verbs in OE and ME; this is obvious from their use with DP objects and as participles, as illustrated in (65) and (66), respectively.

(65) He can al langagis

‘He knows all languages.’

(Beryn 2662, from Visser 499)

(Gelderen (2004: 166))

(66) yf by any meanes she had conde

if by any means she had could

‘If she had been able to.’

(Blanchardyn 97/4, from Kellner 1890:liii)

(Gelderen (2004: 166))

Focusing on the relation between modals and *ge-* prefix, Gelderen (2004) assumes that the base-generated position of modals in OE is *v*, because modals frequently took as its complement verbs with *ge-* prefix, which is considered as indicating the perfective aspect, as shown in (67).

(67) a. swa sceal geong guma gode gewyrcean

so shall young man good accomplish

‘So should a young man through good works accomplish’

(Beowulf 20)

b. þæt ic sænæssas geseon mihte

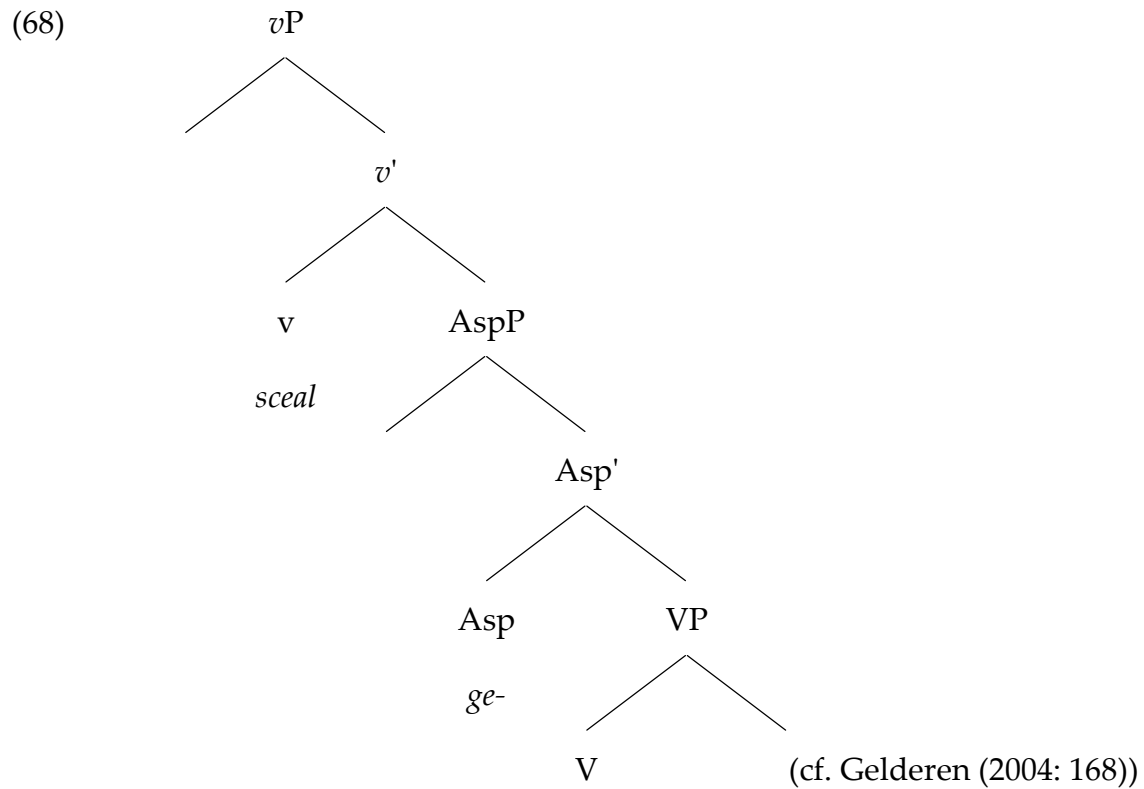
that I see-bluffs see might

‘So that I could see the cliffs.’

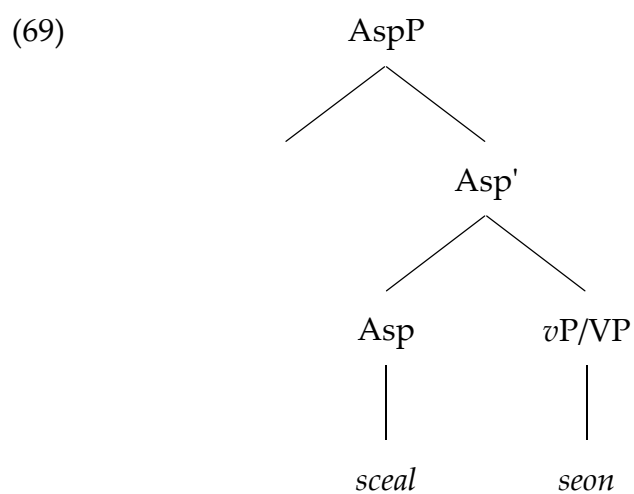
(Beowulf 571)

(Gelderen (2004: 168))

Based on the frequency of examples like (67), she proposes the structure in (68) where modals and *ge-* are placed in *v* and *Asp*, respectively.



According to her, as the role of *ge-* decreased, the modal took over its aspectual role and consequently the inner Asp was reanalyzed into the outer Asp, as illustrated in (69), where the structure is clearly mono-clausal with the modal occupying the head of AspP.

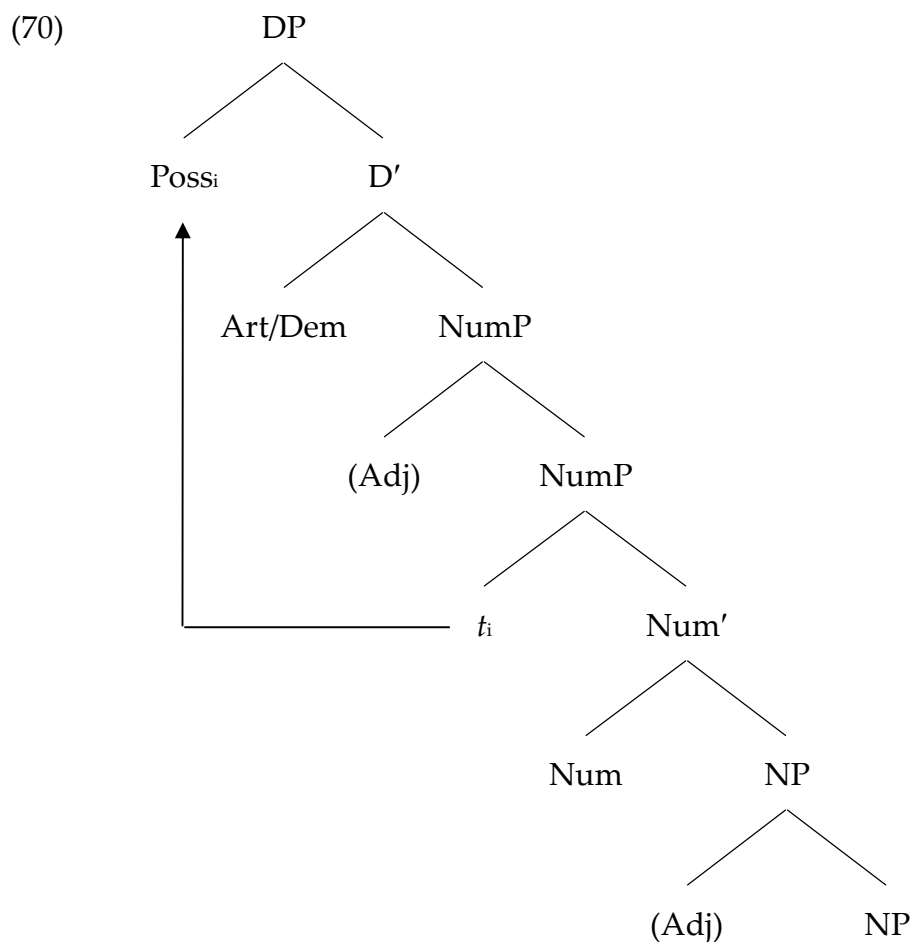


(Gelderen (2004: 169))

Gelderen amply presents examples of grammaticalization that have been driven by the Spec to Head Principle and the Late Merge Principle: personal pronouns, negatives, relatives and so on for the former, and adverbs, perfect auxiliaries, progressive auxiliaries and so on for the latter.

#### 2.4.3.2. The Position and the Grammaticalization Path of Possessive Pronouns

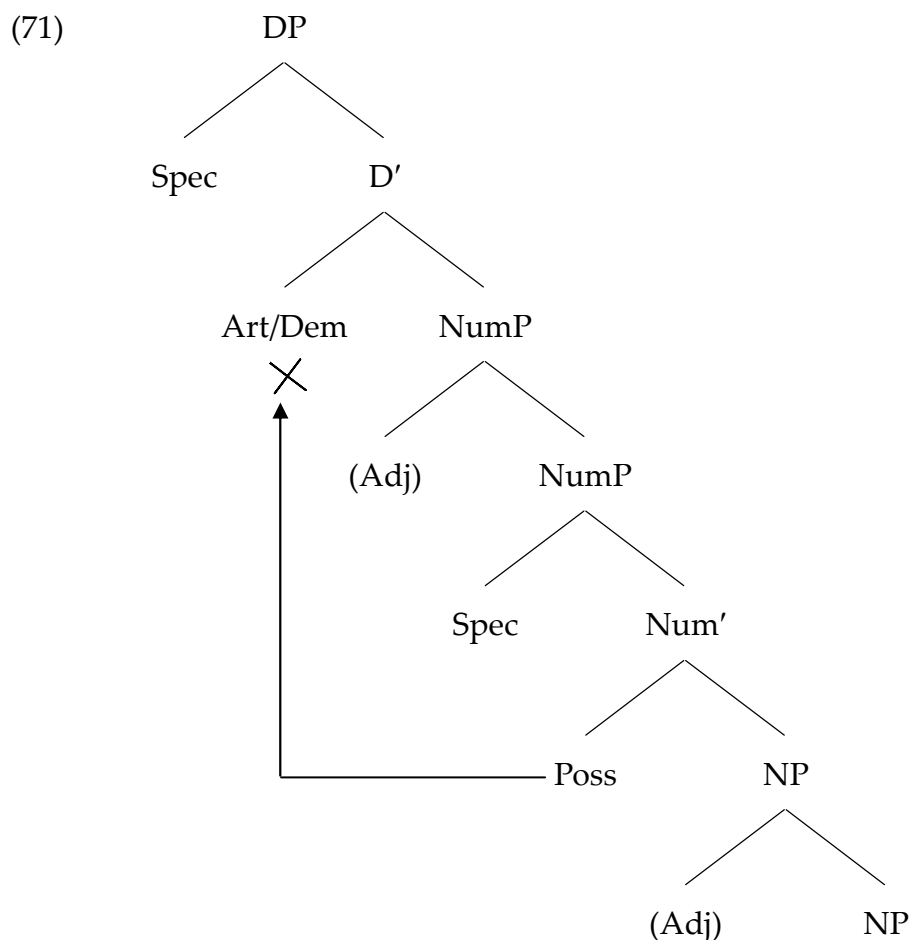
With Gelderen's (2004) approach to grammaticalization in mind, let us consider the position and the grammaticalization path of possessive pronouns in the history of English. As we saw in section 2.4.2.2, possessive pronouns are base-generated in Spec-NumP in OE, optionally moving to Spec-DP when they cooccur with articles/demonstratives, as shown in (70).



If possessive pronouns remain *in site*, there are two possible word order patterns depending on the position of adjectives, namely Art/Dem-Adj-Poss-N and Art/Dem-Poss-Adj-N. If possessive pronouns move to Spec-DP, the resulting word order is Poss-Art/Dem-Adj-N. In all these word order patterns, the [+definite] feature of D is checked by articles/demonstratives occupying the head of DP (as well as by possessive pronouns in the order Poss-Art/Dem-Adj-N). Note that possessive pronouns obligatorily move to Spec-DP in the absence of articles/demonstratives, because there are no other matching elements to check the [+definite] feature of D.

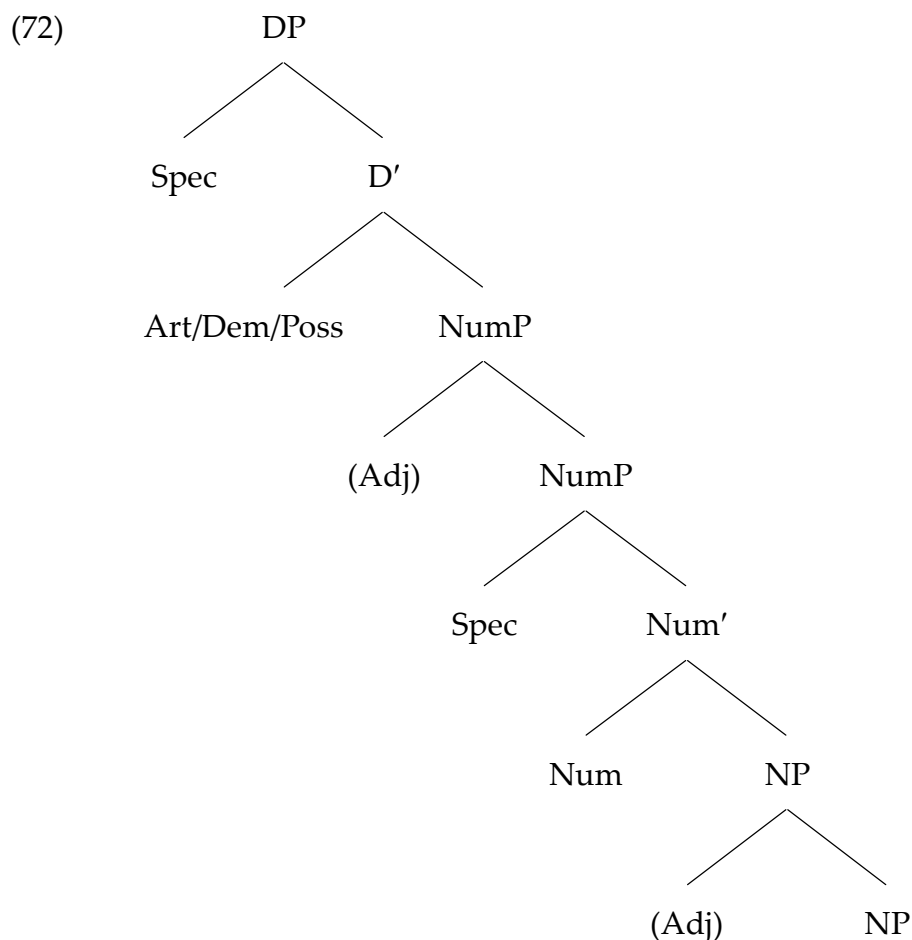
In accordance with the Spec to Head Principle, suppose that possessive pronouns became the head of NumP in EM, so their movement came to target the head of DP, which is the base-generated position of articles/demonstratives. Therefore, when articles/demonstratives appear in the head of DP, possessive pronouns cannot move there, as shown in (71).





On the other hand, when articles/demonstratives do not appear in the head of DP, possessive pronouns obligatorily move there to check the [+definite] feature of D. This analysis can properly capture the result of the investigation summarized in Tables 7 and 9: the order Poss-Art/Dem-(Adj)-N was lost in ME, whereas the order Art/Dem-(Adj)-Poss-(Adj)-N was still attested in EModE.

The obligatory movement of possessive pronouns to the head of DP in the absence of articles/demonstratives led to their further grammaticalization in accordance with the Late Merge Principle: they came to be directly merged in the head of DP, as shown in (72).



In (68), articles/demonstratives and possessive pronouns compete for the same position, the head of DP. This is why they cannot cooccur within a single noun phrase in PE. Their cooccurrence is still observed in PPCEME, so that the grammaticalization of possessive pronouns driven by the Late Merge Principle must have happened in the LModE period.

In order to confirm this, I have investigated the distribution of double determiners in LModE by using CLMET. Together with the results of the investigation based on PPCEME, the first row in Table 14 represents the numbers of examples attested in the corpora, and the second row represents the number of double determiners per a hundred thousand words in each sub-period of ModE.

**Table 14**

	← PPCEME →			← CLMET →		
	EModE1 (1500-1570)	EModE2 (1570-1640)	EModE3 (1640-1710)	LModE1 (1710-1780)	LModE2 (1780-1850)	LModE3 (1850-1920)
Number	63	58	50	57	97	47
/100,000 words	10.93	8.86	8.85	1.88	1.69	0.91

Although the number of tokens of the relevant examples remains almost unchanged in ModE, there is a radical reduction in the frequency of double determiners in the transition from EModE3 to LModE1, and it gradually decreases during LModE. Therefore, it is plausible to conclude that the grammaticalization of possessive pronouns into central determiners occupying the head of DP was completed during LModE.

To sum up, this section has discussed the grammaticalization of possessive pronouns in the history of English in light of the two economy principles proposed by Gelderen (2004). The position of possessive pronouns first changed from Spec-NumP to the head of NumP in ME, in accordance with the Spec to Head Principle. This made the order Poss-Art/Dem-(Adj)-N impossible, since possessive pronouns could no longer move to the head of DP in the presence of articles/demonstratives. Then during the LModE period, possessive pronouns were further grammaticalized and came to appear in the head of DP, leading to the loss of double determiners.

## 2.5. Concluding Remarks

In this chapter, I have discussed the distribution of quantifiers, articles/demonstratives, possessive pronouns and adjectives within noun phrases in the history of English, arguing that the distributional differences between PE and early English are accounted for in terms of the unique behavior of possessive pronouns in early English. The possibility of the cooccurrence of articles/demonstratives and possessive pronouns in early English was shown to follow from their different syntactic positions: while articles/demonstratives occupy the head of DP throughout the history of English, the base-generated position of possessive pronouns was Spec-NumP in OE and the head of NumP in ME and EModE. It was also argued that possessive pronouns were finally grammaticalized into a central determiner occupying the head of DP during LModE, whereby the determiner system in PE was established.

## Notes to Chapter 2

1 Amano (2007) argues that *half* is being grammaticalized into a postdeterminer in PE.

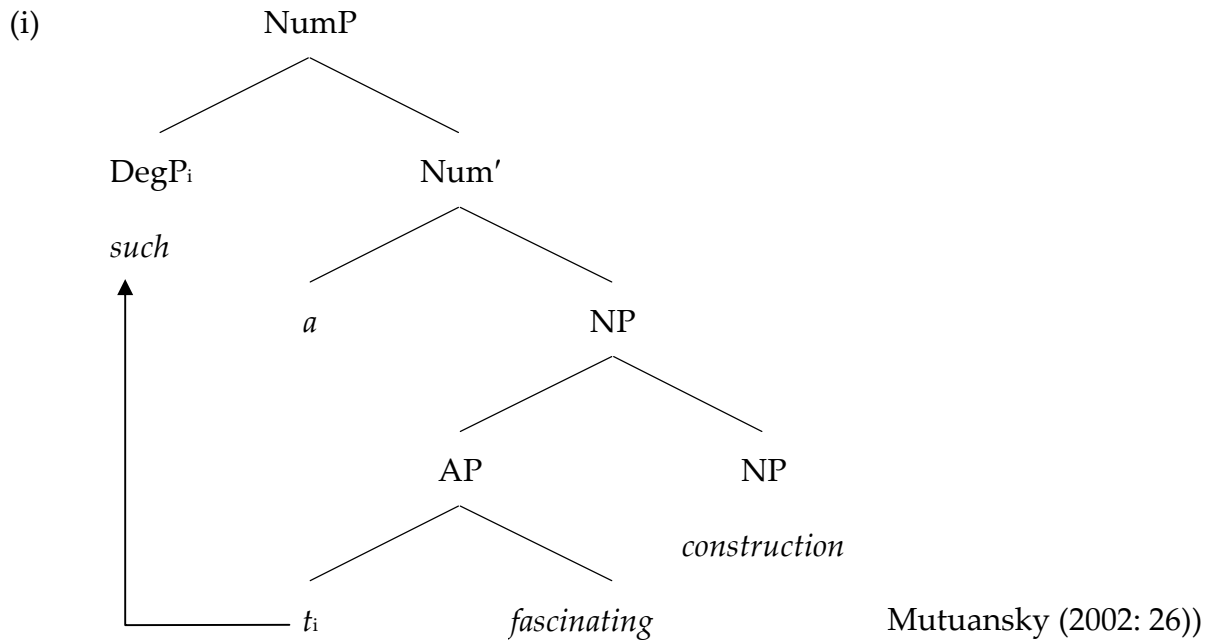
2 According to *The Oxford English Dictionary*, *every* first appeared around the end of the 12th century. Indeed, no examples of noun phrases with *every* are found in YCOE, as shown in Table 4.

3 Huddleson and Pullum (2002) observe that nothing can intervene between *many* and *a* and *many* cannot be replaced by its antonym *few*, arguing that like *a*, *many a* always functions as determiner.

4 Note that the fact that the pattern of *Many*-Art/Dem-N is not found in YCOE is due to the absence of the indefinite article in OE. See Nakao (1972) for the observation that the indefinite article began to appear in the beginning of the 13th century.

5 We will put aside these exceptional cases here, noting that some particular property of the relevant kinds of adjective would lead to their unusual positioning within noun phrases.

Matuchansky (2002) discusses that adjectives modified by degree adverbs move to the initial position of noun phrases in PE, arguing that as well as *so* and *too*, *such* is a degree operator, which cannot be interpreted in its base-generated position and needs to undergo degree fronting, as shown in (i).



See Matuansky (2002) for a detailed discussion.

6 Fischer and Wurff (2006: 121) suggest that there seems an increasingly general tendency to insert *of* between a quantifier and the definite article in examples such as (23); in PE, this is the rule for *some* and *any*, which were used without *of* in OE and ME.

7 Note that Fukui assumes that in Japanese demonstratives do not serve as D.

8 Although Yamamoto argues that the relative order of modifiers was determined by semantic and pragmatic factors, just as the order of adjectives in PE, she does not give specifically what factors are related to the order and how it is determined.

9 As for the kind of adjective in (39b), see section 2.2.2.1.

10 Alexiadou does not give any explanation to the word order pattern (41d).

11 One might prefer to assume that predeterminers are always adjoined to DP, which can cover relevant data here. However, the following examples would suggest that both analyses for predeterminers, adjoined to DP and occupying Spec-DP, had been possible until EModE.

(ii) *alboth* this thynges (Yonge S. Secr.207.37-8)

(Fischer and Wurff (2006: 121))

(iii) ..., *all both* lacedemonians. (1571 T. Fortescue, Forest Hist. p129)

(Lightfoot (1979: 174))

In the examples, *all* and *both* cooccur in the same noun phrase although they are combined in (ii). The possible analysis for the examples above is that *all* is adjoined to DP and *both* occupies Spec-DP. However, it seems that examples like (ii) and (iii) are not common in early English. Also, no example is attested in the investigation by Collins. In these regards, it is very hard to decide whether predeterminers may be either adjoined to DP or located in Spec-DP, or always adjoined to DP. Since the position of predeterminers is not so crucial here, I leave this issue open for further study.

12 One might suggest the possibility that postdeterminers occupy Spec-NumP. However, as we will see below, that position is open for possessive pronouns, which usually precede postdeterminers in early English. See section 2.4.2.2.

13 Another possibility for this case is that DP does not project when there exists no predeterminer and central determiner.

14 Whether adjectives in early English were adjoined to NP or NumP could be attributed to their classes. For example, expanding Cinque's (1999) Universal Hierarchy of Clausal Functional Projections, Scott (2002) proposes the hierarchy of adjectives as shown in (v).

- (v) DP > ORDINAL NUMBER > CARDINAL NUMBER > SUBJECTIVE COMMENT >  
EVIDENTIAL > SIZE > LENGTH > HEIGHT > SPEED > DEPTH > WIDTH > WEIGHT >  
TEMPERATURE > WETNESS > AGE > SHAPE > COLOR > NATIONALITY/ORIGIN >  
MATERIAL > COMPOUND ELEMENT > NP (Scott (2002: 114))

As shown in (v), some classes of adjectives are placed in higher projections; thus, it might be said that such adjectives could be adjoined to NumP. Indeed, the adjectives in (54) *healican*, *unsmerigne* and *small*, are classified into rather higher classes of adjectives, HEIGHT, SUBJECTIVE COMMENT and SIZE, respectively. However, it seems that more research is needed to identify the relative positions of adjectives in early English. Another subject related to this problem is the change in adjunction sites of adjectives during LModE: until EModE, adjectives could be adjoined to either NumP or NP, but they came to be adjoined only to NP. I leave these intriguing issues open for further study.

15 See note 14.



16 This analysis assumes that possessive pronouns move to Spec-DP to check the [+definite] feature of D in (27). Given that the feature has already been checked by articles/demonstratives, another possibility would be that possessive pronouns are topicalized to Spec-DP without checking the [+definite] feature of D, along the lines of Yamamoto (1989) (see section 2.3.4).

## Chapter 3

## *The Distribution of Genitives in the History of English*

### 3.1. Outline

This chapter discusses the historical development of determinative genitives, which was out of the scope of the investigation conducted in chapter 2. I argue that this development instantiates degrammaticalization, in which the genitive inflection -'s changed from a morphological affix in to a genitive Case assigner in D.

According to Quirk et al. (1985) and Taylor (1996), there are two kinds of genitives in PE: the genitive as a determiner and the genitives as a modifier, as shown in (1a, b), respectively.

- (1) a. the/her/Jenny's/my daughter's (new) desk (genitives as determinative)  
 b. several/new women's universities (genitives as modifier)
- (cf. Quirk et al. (1985: 326-328))

There are two opinions on the origin of *-s*: the genitive inflection in OE and ME (Allen (1997, 2008) and Fischer (1992)) and the *his*-genitive as in (2) that was observed in late ME and EModE (Amano (2003) and Taylor (1996)).<sup>1</sup>

- (2) a. Felyce    hir    fayrnesse (*PPL.* B xii 47)  
          Felice   her   fairness

b. Gwenayfer his love

(*Lawman B 22247*)

Gweneyfer his love

(Mustanoja (1960: 160))

Based on the former opinion, it is argued that *-s* has developed from the genitive inflection in early English, which is closely related to the change of genitives from an inherent Case to a structural one. This chapter also provides a syntactic analysis of the development of genitives in the history of English, and shows that it can properly explain the distributional change of genitives revealed by an investigation of historical corpora.

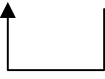
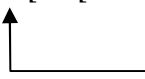
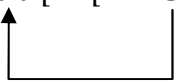
The organization of this chapter is as follows. Section 3.2 reviews previous studies and points out problems with their analyses. Examining basic properties of genitives, section 3.3 argues that *-s* has developed from the genitive inflection, genitive Case has changed from inherent Case to a structural one, and the syntactic position of *-s* is the head D in PE. It is also claimed that the development of *-s* is an instance of degrammaticalization, and various kinds of examples of degrammaticalization from other languages will be provided in section 3.4. Section 3.5 discusses the distribution of genitives in the history of English based on the data obtained from an investigation of historical corpora, and attempts to account for the distributional change of genitives by relating it to the development of *-s*. Section 3.5 is the concluding remarks of this chapter.

## **3.2. Previous Studies**

### **3.2.1. Ohmura (1995)**

Ohmura (1995) discusses the transition of the genitive Case, arguing that the genitive Case assigner changed from N to D in the history of English. Adopting the

DP Hypothesis proposed by Abney (1987), he proposes the structural changes of genitives as illustrated in (3).

- (3) a. [DP D [NP *Juno* [N' *bedde* ]]]  
 inherent case assignment
- b. [DP *Juno* [D' [D *hir* ] [NP *bedde* ]]]  
 structural case assignment
- c. [DP *Juno's* [D' [D AGR ] [NP *bed* ]]]  
 structural case assignment (cf. Ohmura (1995:49-55))

(3a) is the structure in OE where the head N assigns the inherent genitive Case to the noun in its specifier position and D is inactive with regard to the Case assignment. The *his*-genitive is argued to have the structure in (3b), where *his* and the genitive noun phrase are placed in the head D and Spec-DP, respectively, and it is often recognized as the bridge phenomenon between (3a) and (3b). (3c) is the structure proposed by Abney (1987), where AGR assigns the structural genitive Case to the noun phrase in Spec-DP by a Spec-head agreement.

Ohmura argues that in OE, genitive noun phrases are not placed in Spec-DP, giving the examples in (4) the structures in (5).

- (4) a. þæt halige godes word  
that holy God's word  
'God's holy word' (ÆHom IV.294)

b. on þære forman Cistes bec  
in the first Christ's book  
'in the first book about Christ' (ÆCHom I. 78.1)

c. ...he wæs soð Godes Sunu  
... he was true God's son  
'... he was the true son of God' (BlHom 29.26)

(Ohmura (1995: 49))

(5) a. [DP [D þæt ] [NP halige godes word]] (= (4a))

b. on [DP [D þære ] [NP forman Christes bec]] (= (4b))

c. he wæs [DP [NP true Godes Sunu]] (= (4c)) (Ohmura (1995: 49))

In (5), the genitive Case is assigned by the head N, as observed in (3a). In early ME, the *his*-genitive, which has the structure in (3b), was introduced to English, and the structures in (3a) and (3b) coexisted from ME through early ModE. In ME and early ModE, the head D as a Case assigner was only activated in the *his*-genitive construction. According to Ohmura, the number of the *his*-genitive rapidly increased after the fifteenth century, and the frequency of the usage of the *his*-genitive is almost the same as that of genitives with the affix *-(e)s* during the seventeenth century. As the *his*-genitive flourished, the Case assignment by D diminished the Case assignment by N, and finally the latter was lost, with the establishment of the structure in (3c) during the ModE period.

Ohmura's (1995) analysis seems to be problematic in some respects, however. Ohmura argues that the Case assignment by *his* thought Spec-head agreement is supported by examples like (6).

- (6) a. Mrs. Francis *her* marriage (Lady Verney, Verney Men)  
 b. you should translate Canterbury and Chillingworth *their* books into French  
 (Dr. Denton, *ibid.*)  
 c. this day *its* passages (Pep, vol. I 42)  
 (Ohmura (1995: 55))

It is argued that in these examples, the italicized variants of *his*, i.e. *her*, *their* and *its*, result from the agreement with its genitive nominal.<sup>2</sup> However, his analysis is untenable for examples like (7).

- (7) a. Gwenayfer *his* love (Lawman B 22247)  
 b. at þare ditch *his* grunde (Lawman B 1589)  
 (Mustanoja (1960: 160))

In (7), the genitive noun phrases are followed by *his* which does not match with them in gender and number; *Gwenayfer* is feminine and *ditch* is inanimate, so that the possessives would be *her* and *its* in (7a, b), respectively. Thus, Ohmura's analysis is problematic since the examples in (7) seem to have nothing to do with the Spec-head agreement of *his* and the genitive noun phrase.<sup>3</sup>

Second, Ohmura's observation is incompatible with Rossenbach and Vezzosi's (2000) observation. Based on the statistical research, they argue that the *his*-genitive was never popular enough to threaten genitives with the affix *-(e)s*. If their investigation is on the right track, it is hard to say that the frequencies of the *his*-genitive and the affix *-(e)s* are the same in the seventeenth century, as reported by Ohmura. We will return to this point in the next section.

Third, Ohmura's analysis of genitives in OE illustrated in (3a) and (5) cannot properly account for the result of my investigation, as shown in Table 1.

**Table 1**

	Dem - Adj - <i>God's</i> - N	<i>God's</i> - Adj - N	Dem - <i>God's</i> - Adj - N
YCOE	14	10	0

Here is an example of the word order pattern *God's*-Adj-N attested in the corpus.

- (8) Godes      ælmihtinges      willan  
       God's      almighty      will  
       'God's almighty will'      (coverhom,LS\_19\_[PurifMaryVerc\_17]:95.2196:o3)

Focusing on the specific genitive noun *God's*, I examined the relative word order patterns among the demonstrative, the genitive noun and adjectives by using YCOE. Ohmura does not discuss the word order Gen(itive)-Adj-N; examples of this word order pattern are not involved in (4) and (5). It is of particular interest that the genitive *God's* cannot precede the adjective when the demonstrative cooccur within the same noun phrase, and that the genitive *God's* and the demonstrative cannot cooccur before the adjective within the same noun phrase. These facts can be taken as evidence that genitive noun phrases sometimes compete with the demonstrative for the same position. In other words, given that the position of demonstratives is the head D as concluded in Chapter 2, genitive noun phrases do not always occupy Spec-NP. Furthermore, it is uncertain whether or not the inherent Case assignment could be implemented successfully in the word order Gen-Adj-N because the

adjective intervenes between the inherent Case assigner, the head N, and the assignee, the genitive noun. In section 3.3, I will propose a new analysis of genitives in early English, by which the properties of genitives in OE discussed here can be correctly accounted for.

### 3.2.2. Amano (2003)

Amano (2003) argues that the possessive *-s* in PE is the direct descendent of the *his*-genitive rather than the OE or ME genitive case inflection, and that contraction and grammaticalization played an important role in the historical change of the genitive form.

Amano cites Rosenbach and Vezzosi (2000), which carried out a statistical analysis of text mainly taken from the *Helsinki Corpus*. The period covered by their analysis is 1400-1630, which is divided into four time intervals, as shown in Table 2.

**Table 2**

Forms	1400-1449 (I)		1450-1499 (II)		1500-1559 (III)		1560-1630 (IV)	
	n	%	n	%	n	%	n	%
<i>of</i>	1341	90.7	2059	82.6	2257	82.8	1826	77.5
<i>(e)s</i>	118	7.9	369	14.8	184	6.8	188	8
<i>'s</i>	<b>1</b>	<b>0.1</b>	<b>2</b>	<b>0.1</b>	<b>136</b>	<b>5</b>	<b>261</b>	<b>11.1</b>
total <i>s</i>	119	8	371	14.9	320	11.8	449	19.1
<i>his</i>	<b>1</b>	<b>0.1</b>	<b>39</b>	<b>1.6</b>	<b>11</b>	<b>0.4</b>	<b>10</b>	<b>0.4</b>
<i>to</i>	3	0.2	1	-	41	1.5	29	1.2
zero	6	0.4	8	0.3	10	0.4	12	0.5
<i>s-less</i>	9	0.6	14	0.6	84	3.1	31	1.3

N = number of instances

(cf. Rosenbach and Vezzosi (2000: 290))



It is suggested that there are significant relations between the frequencies of *his* and *-’s*; the frequency of the *his*-genitive reached its peak during the interval II, 1.6 % and it suddenly fell down to 0.4 % during the interval III, whereas the frequency of *-’s* was very low during the interval II, i.e. just 0.1 %, and it suddenly rose up to 5 % during the interval III. Therefore, suggesting that the replacement of *his* with *-’s* took place during the interval III, Amano concludes that the possessive *-’s* is the direct descendent of the *his*-genitive rather than the inflectional *-(e)s*.

As for the historical development of *-’s*, Amano proposes a series of changes as illustrated in (9).

- (9)      Stage1: Reanalysis of the OE genitive *-(i/y)s* as *his*  
             Stage 2: Long life of *his* as an infrequent minority  
             Stage 3: Increase of frequency of *his*  
             Stage 4: Contraction of *his* to *’s*  
             Stage 5: Complete obsolescence of *his*  
             Stage 6: Grammaticalization of *’s* (Amano (2003: 100))

According to him, the *his*-genitive emerged in English when the OE inflectional genitive *-(y)s* was reanalyzed as *his* (Stage 1 of (9)). This reanalysis was triggered by the homophony between the genitive inflection *-(y)s* and *his*; the weak unstressed form of *his*, i.e. *is* or *ys*, was homophonous with the affix *-(i/y)s*, and that it was very difficult to distinguish between (10a) and (10b).

- (10) a. the kyngys sonne (= *s*-genitive)  
 b. the kyng hys sonne (= *his*-genitive) (Wyld 1936: 314-5)  
 (Amano (2003: 99))

Once the *his*-genitive was introduced into English, contraction of *his* to *-’s* is expected because a shorter form is usually considered as more functional. Based on the discussion of Table 2, Amano claims that the use of *-’s* was orthographically established in English during interval III (Stage 4 in (9)), and during EModE, the full form *his* was completely terminated (Stage 5 in (9)). The change from the full form *his* into the contracted form *-’s* is claimed to be an instance of grammaticalization; while other contract forms have their full forms in PE (e.g. the negative *-n’t* has its full form *not*), *-’s* is highly unique in that it never has its corresponding full form (Stage 6 in (9)).

However, Amano’s analysis seems to be problematic. As Rossenbach and Vezzosi (2000) argues, the number of the *his*-genitive is extremely low throughout ME and EModE; thus, it is hard to assume that the origin of *-’s* is *his* of the *his*-genitive. Adding to this, Amano has paid attention only to the relation between *his* and *-’s*, and he overlooks the relative frequencies of the genitive inflection *-(e)s* and *-’s* in Rossenbach and Vezzosi’s investigation. If we take a careful look into the relation between *-(e)s* and *-’s* in Table 2, these strongly suggest the change from *-(e)s* into *-’s*: when the frequency of *-(e)s* decreased, that of *-’s* increased. Suppose that *-’s* has developed from *-(e)s*, grammaticalization of *-’s* is dubious since *-’s* originally does not have its corresponding full form. We will return to the discussion of the origin of *-’s* in the following section.

### 3.3. Some Properties of Genitives

#### 3.3.1. The Origin of -'S

As mentioned above, there has been some debate on the origin of -'s: the genitive inflection or the *his*-genitive. However, we have observed that the latter view faces the serious problem concerning the frequency of the *his*-genitive. Since Rosenbach and Vezzosi (2000) deal with not only *s*-genitives comprising both -(e)s and -'s but also *of*-genitives in Table 2, let us consider the following table showing the parts of their original data that are relevant for the present discussion.

**Table 3**

Forms	1400-1449 (I)		1450-1499 (II)		1500-1549 (III)		1560-1630 (IV)	
	N	%	N	%	N	%	N	%
-(e)s	118	99.8	369	90	184	55.6	188	41
-'s	1	0.1	2	0.5	136	41.1	261	56.9
<i>his</i>	1	0.1	39	9.5	11	3.3	10	2.1
Total	120	100	410	100	331	100	459	100

N = number of instances

(cf. Rosenbach and Vezzosi (2000: 290))

Notice in Table 3 that the frequency of the *his*-genitive is still much lower than the other two types of genitives throughout late ME and EModE, so it is implausible to consider the *his*-genitive as the origin of -'s. Rather, the data in Table 4 suggest that there is a close connection between the genitive inflection -(e)s and -'s: the number of -(e)s is dominant over that of -'s in the periods (I) and (II), but with the radical increase of -'s, the proportion of -(e)s to -'s in the period (III) is approximately 55 to 40, and finally in the period (IV), the percentages of -(e)s and -'s are reversed. This

series of changes in late ME and EModE will indicate that the genitive inflection *-(e)s* was replaced by *-’s*.

I have also independently investigated the frequency of the *his*-genitive in ME and EModE by using PPCME2 and PPCEME. However, as shown in Table 4, there are only 4 and 14 examples of the *his*-genitive in PPCME2 and PPCEME, respectively, which shows that its frequency is extremely low, compared with that of the *s*-genitive.

**Table 4**

Forms	PPCME2		PPCEME	
	N	%	N	%
<i>his</i>	4	0.06	14	0.22
others	6409	99.94	6538	99.78
Total	6413	100	6452	100

Here are examples of the *his*-genitive attested in each corpus.<sup>4</sup>

(3) a. and in especiall for my lorde sir Gawayne **his** sake

and in especial for my lorde sir Gawayne his sake

(CMMALORY,192.2858: m4)

b. as Beda **’s** Epitome records

as Beda his epitome records

(MILTON-E3-P2,X,176.38: e3)

From these empirical arguments, it can be concluded that *-’s* has not developed from the *his*-genitive, but from the genitive inflection *-(e)s*.

### 3.3.2. The Change of Genitive Case Assignment in the History of English

As reviewed in section 3.2.1, Ohmura (1995) proposes that genitive Case has changed from inherent to structural Case in the history of English (though he argues that the origin of *-s* is the *his*-genitive, contrary to the conclusion in the previous section). Following his proposal, this section discusses the change of genitive Case assignment in the history of English.

In order to argue for the change of genitive Case from inherent to structural Case, Ohmura (1995) notices the expansion of the functions of genitives and the development of verbal gerunds. In illustration of the former property, consider the following examples.

- (12) a. your house's guest (*Love's Labor's Lost*, 5.02.354)
- b. this fair land's peace (*King Richard The Third*, 5.05.39)
- c. the decade's event
- d. a moment's thought (Ohmura (1995: 57))

According to Ohmura, genitive Case was assigned only to arguments of nouns until ME, but genitive forms of locative and temporal noun phrases as in (12) began to increase their number in EModE. Given the uniformity condition in (13), this is accounted for by assuming that genitive Case was an inherent Case assigned by the head N under  $\theta$ -role assignment until ME.

- (13) If  $\alpha$  is an inherent Case-marker, then  $\alpha$  Case-marks NP if and only if  $\theta$ -marks  
      the chain headed by NP (Chomsky (1986: 194))

He suggests that since the semantic relation between the head N and the locative and temporal noun phrases is very weak in the examples like (12), it does not  $\theta$ -mark the noun phrases. Then, genitive Case changed from an inherent Case to a structural one in EModE, which made possible genitive Case assignment to noun phrases that are not  $\theta$ -marked, such as locative and temporal noun phrases.

This is also supported by the development of verbal gerunds in EModE, as shown in (14).

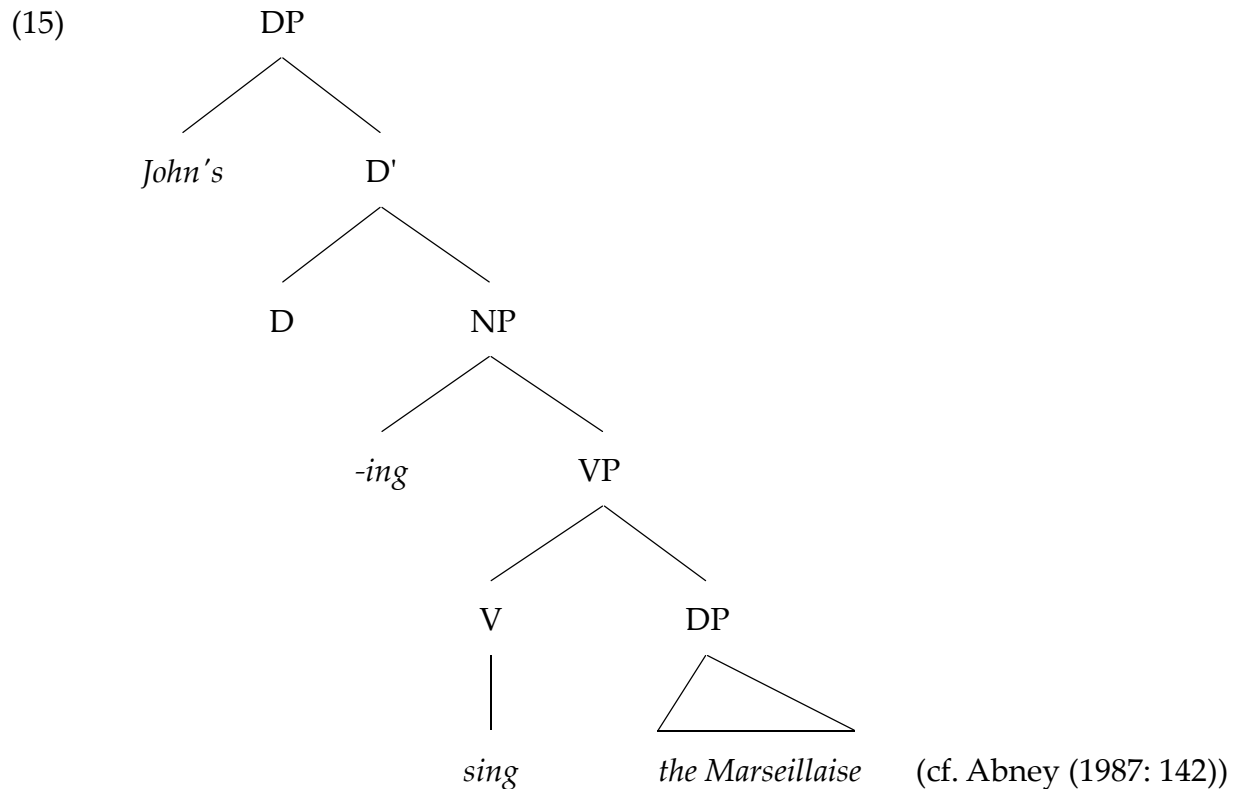
- (14) a. the doctors marrying my daughter

(1598, *Merry Wives* V, iii, 9-Visser 1963-1973: 1166)

- b. Jacob Hall's dancing on the ropes (1668, *Pepy's Diary* Sept. 21-Visser: 1167)

(Ohmura (1995: 56))

According to Ohmura (1995), the appearance of verbal gerunds means the loss of the semantic dependence of genitive Case upon a head noun, which will in turn indicate that genitive Case ceased to be an inherent Case assigned by N. Abney (1987) argues that verbal gerunds do not have a head noun, but have the DP structure above VP, as illustrated in (15).<sup>5</sup>



Assuming this structure proposed by Abney, it will follow that the genitive noun phrases in (14) are assigned structural Case by the functional head D without recourse to  $\theta$ -role assignment.

### 3.3.3. -'S as a D Element

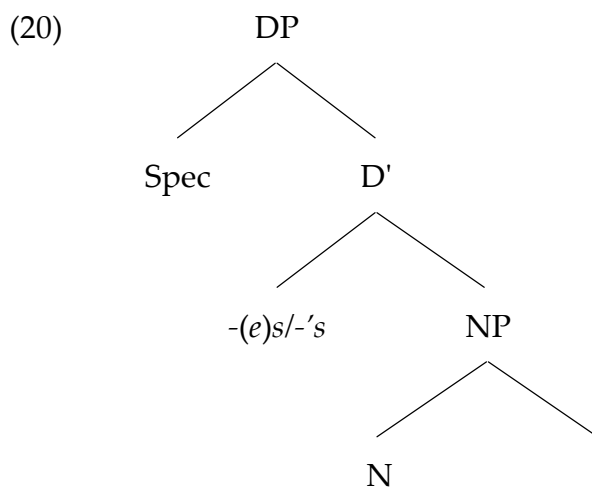
This section presents some pieces of evidence that -'s, which has developed from the genitive inflection, is a D element in PE. Let us first consider the path of its change from the genitive inflection to a D element in the history of English by looking at the development of the group genitive. In OE, when a genitive noun phrase consists of more than one noun, each noun has the genitive inflection, as shown in (16) (Ono and Nakao (1980), Nakao (1972), Allen (2008)).





- (19) a. Fred's taste in wallpaper is appalling.  
 b. The man in the hall's taste in wallpaper is appalling.  
 c. Every man I know's taste in wallpaper is appalling.  
 d. That brother-in-law of mine that I was telling you about's taste in wallpaper is appalling.  
 e. Even that attractive young man who is trying to flirt with you's taste in wallpaper is appalling. (Anderson (2008: 2))

The possibility of the group genitive as in (18) and (19) can be accounted for by assuming that *-(e)s/-'s* is located in the head D and it is attached to the noun phrase in Spec-DP, as illustrated in the structure of (20).



We will return to the derivation of the group genitive in chapter 4.

Second, the distributional relation between pronouns and *-'s* also suggests that *-'s* is located in the head D in PE. Consider the following examples.

- (21) a. \*I/me's, \*you/your's, \*she/her's, \*we/us's lunch

b. The woman who loves me's bad habit

c. A friend of mine's bad habit (Anderson (2008:11, 12))

Assuming that pronouns are located in the same head D as -'s (Abney (1987)), it immediately follows that the two elements cannot cooccur within the same noun phrase, as illustrated in (21). In (21a, b) (and (19e)), on the other hand, -'s can be attached to the pronouns, because the pronouns are included in the noun phrase in the specifier of the head D that -'s occupies.

Third evidence comes from the comparison between -'s and the contracted form of auxiliaries in PE.

(22) I'd like to take ... , When **you've** come to ...

As shown in (22), when auxiliaries in T are contracted and attached to their preceding subjects in Spec-TP, they appear in the form of the apostrophe. Under the present analysis, -'s is located in the head D and attached to the noun phrase in Spec-DP, which will account for its formal similarity to the contracted forms of auxiliaries.

One might wonder why -'s does not have a non-contracted form unlike auxiliaries. As suggested in section 3.2.2, this can be attributed to their developmental processes in the history of English: auxiliaries have developed from verbs that are independent lexical items, whereas -'s has developed from the genitive inflection and still remains a dependent element as a clitic.

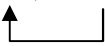

In this section, we have presented some pieces of evidence that -'s is placed in the head D in PE. It is reasonable to suppose that -'s has a clitic-like status, since it

needs a host to attach to and is phonologically dependent on its host without its own stress (Anderson (2008)). Therefore, the development of *-’s* represents a case of an inflectional affix changing into a clitic, for which some comments are provided in the next section.

### 3.3.4. The Development of Genitives as Degrammaticalization

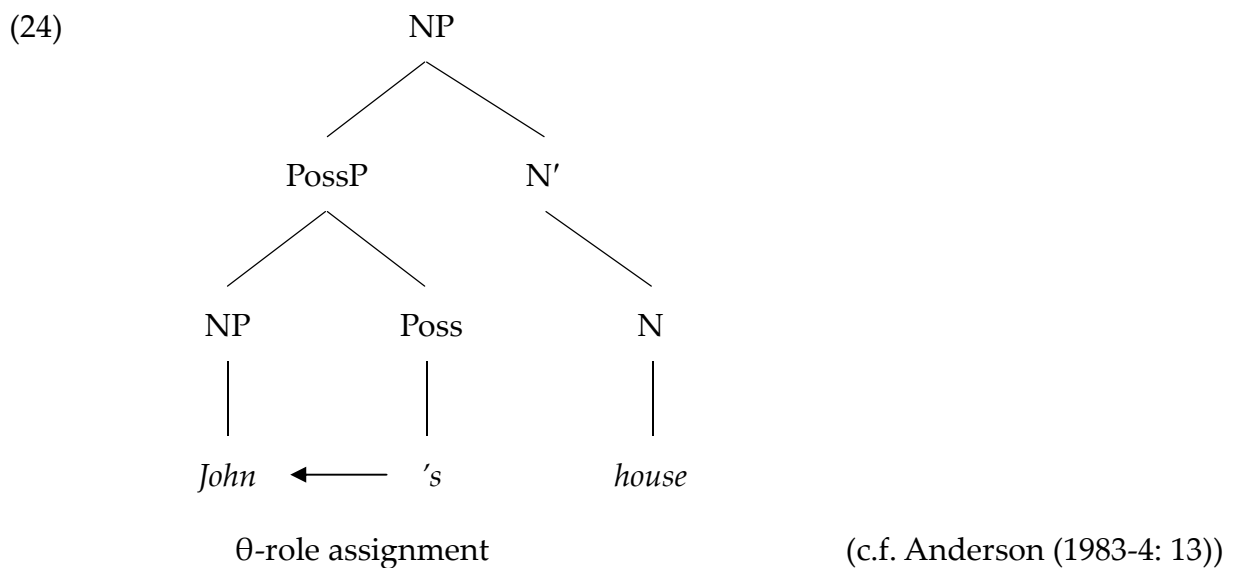
#### 3.3.4.1. The Structural Development of Genitive in the History of English

Thus far, we have argued that *-’s* has developed from the genitive inflection, genitive Case has changed from an inherent Case to a structural one, and *-(e)s/-’s* has come to occupy the head D. Given that the latter two changes happened roughly during the same period (see the discussion of (12), (14) and (18)), it is a natural move to pursue the correlation between them. Therefore, I propose the structural development of genitives as in (23).

- (23) a.  $[DP (DP) [D' D [NP (DP) [N' N ]]]]$   
  
 Inherent Case Assignment
- b.  $[DP DP_i [D' -(e)s/-’s [NP t_i [N' N ]]]]$   
  
 Structural Case Assignment

Until ME, the head N assigns inherent genitive Case under  $\theta$ -role assignment as illustrated in (23a), where the genitive inflection is realized on each element of the noun phrase base-generated in Spec-NP. Then, genitive Case changed from an inherent Case to a structural one along with the change of the syntactic status of *-(e)s/-’s* as in (23b): *-(e)s/-’s* is a structural genitive Case assigner placed in the head D and it is attached to the whole noun phrase in Spec-DP.

One might wonder why only *-s* has survived into PE, positioned on the head of DP, even though the other case inflections on nouns were leveled and disappeared during the ME period. Anderson (1983-4) provides an answer to this question. Let us briefly review her analysis. She assumes that genitives in PE have the structure as illustrated in (24).<sup>6</sup>



In (24), *-s* is adjoined to NP and assigns a  $\theta$ -role to *John* in the same way that a preposition assigns one to its object. Thus, it can account for the ungrammaticality of the examples below in terms of the Theta Criterion.

(25) a. [<sub>NP</sub> [<sub>NP</sub> John 's] N' [ house ]]

b. \*[<sub>NP</sub> [<sub>NP</sub> John] N' [ house ]]

(c.f. Anderson (1983-4: 6))

The head noun in (25) cannot assign a  $\theta$ -role to the genitive noun in its specifier, with the example (25b) marked as ungrammatical. Assuming the structure illustrated in (24), Anderson argues that the lexical possessive *'s* not only assigns a  $\theta$ -role but also

assign genitive Case.

Following Anderson's idea, I argue that *-s* has become a Case assigner, taking over the task of the head N, so that it needs to have survived. In other words, when various forms of genitive inflection were collapsed into *-(e)s* by the inflectional leveling in ME, nouns lost their capacity to assign inherent genitive Case to nouns, as shown in (23b).<sup>7</sup>

### 3.3.4.2. The Development of *-(e)s/-s* as Degrammaticalization

The development of *-(e)s/-s* illustrated in (23), from an inflectional affix to a clitic, is regarded as an instance of degrammaticalization, in light of the unidirectionality of grammaticalization as envisaged by Hopper and Traugott (2003), i.e. language change proceeds along the cline in (26).

(26) content item > grammatical word > clitic > inflectional affix

(Hopper and Traugott (2003: 7))

Indeed, Hopper and Traugott themselves recognize sporadic counterexamples to the unidirectionality of grammaticalization; there are also a number of cases of degrammaticalization reported in other works. Thus, the cline in (26) only represents a general tendency, and the development of *-s* in English counts as one of the sporadic cases of degrammaticalization. As will be observed below, the argument in the text, i.e. English genitive inflection *-(e)s* was degrammaticalized into a clitic, is supported especially by Norde (2009), who calls it deinflectionalization in her terms (section 3.4.4.2). In the following sections, we observe other cases of degrammaticalization.

### 3.4. Degrammaticalization

This section observes cases of degrammaticalization, which has given rise to much controversy, being opposed to unidirectionality of grammaticalization. It has often been considered as statistically insignificant or inadequate. However, there are a variety of changes of degrammaticalization, which cannot be overlooked, as shown in the following sections.

#### 3.4.1. Hopper and Traugott (2003)

Although Hopper and Traugott (2003) claim the unidirectionality of grammaticalization, they say that “a particular grammaticalization process may be, and often is, arrested before it is fully ‘implemented,’ and the ‘outcome’ of grammaticalization is quite often a ragged and incomplete subsystem that is not evidently moving in some identifiable direction (131).” They present several cases which are often considered as counterexamples to the unidirectionality. One of such examples is changes involving derivational morphemes as shown in (27).

(27) to *up* the ante, that was a *downer*, his *uppers* need dental word

(Hopper and Traugott (2003: 134))

In (27), the prepositions are used as nouns or verbs, with the derivational morphemes. Similar phenomena can be observed in German and French; the verbs *dozen* and *tutover*, both meaning ‘to use the familiar address form,’ are instances of lexicalization (verbalization) of second person singular familiar pronouns *du* and *tu*, respectively.

Reviewing various counterexamples to the unidirectionality, Hopper and Traugott claim that these are sporadic and do not pattern in significant ways, and unidirectionality is extremely robust. They also say “the fact that changes do not show stages that can be plotted on a grammaticalization cline does not entail that they are necessarily counterexamples to grammaticalization” (131).

### 3.4.2. Bybee, Perkins and Pagliuca (1994)

Bybee, Perkins and Pagliuca (1994) claim that affixes can become an independent element under very special circumstances. In most Modern Irish dialects, the person and number agreement suffixes on the verb have been lost and replaced by obligatory subject pronouns except for the first person plural suffix, *-mid/-muid*. The suffix *-mid/-muid* still occurred in the paradigm in the same position as the free subject pronouns as shown in Table 5.

Table 5		<i>mol</i> ‘praise’ Present Tense		
1 s	molann mé	1 p	molaim <b>id</b>	
2 s	molann tú	2 p	molann sibh	
3 s	molann sé, sí	3 p	molann siad	

(Bybee, Perkins and Pagliuca (1994: 14))

Now the suffix *-mid* in Table 5 can occur as an independent pronoun, replacing the earlier first plural pronoun *sinn* as shown in (28).

- (28) a. Osclaíonn tusa an geata agus imríonn **muid** cluifí  
 open.PRES 2s.EMP the gate and play.PRES 1p.EMP game.PL  
 ‘You open the gate and we play games.’
- b. Is **muid** a rinne é  
 be 1p.EMP who do.PAST it  
 ‘It’s we who did it.’ (Bybee, Perkins and Pagliuca (1994: 14))

In (28), the suffix is in its non-palatalized form *-muid*, with the emphatic suffix *-e* added to it. The change here, from the inflectional affix to the free pronoun, can be regarded as degrammaticalization, since its change is from right to left along the cline in (26). Bybee, Perkins and Pagliuca regard the emergence of the free *muid* as a case of paradigm pressure—all other person forms were already expressed independently.

### 3.4.3. Newmeyer (1998)

Newmeyer (1998) argues against the claim of the unidirectionality of grammaticalization in its strongest sense, saying that “while unidirectionality is false ... it is not all that false.” According to Newmeyer, examples of degrammaticalization are rampant; phenomena of grammaticalization have occurred at least ten times as often as those of degrammaticalization.<sup>8</sup> Citing previous studies, he provides various cases of degrammaticalization as will be observed below.

#### 3.4.3.1. From Inflectional Affix to Derivational Affix

As an example of change from an inflectional affix to a derivational affix, Newmeyer presents the French derivational adjectival suffix *-ant*, which evolved



from the Latin inflectional suffix *nt*, which forms present participles, as shown in (29):

- (29) *currens* ‘running (Latine)’ > *courant* ‘current (French)’

(Newmeyer (1998: 264))

He argues that examples like (29) are incompatible with the strongest hypothesis of the unidirectionality, which holds a relentless shift to the more grammatical element.

### 3.4.3.2. From Inflectional Affix to Clitic

One example of an affix changing to a clitic comes from the Old Norse genitive affix *-s*, which has developed to the modern Mainland Scandinavian *-s*:

- (30) a. NP[NP [den      gamle    mannen]    s    hus]  
                  the      old          man-the      ’s    house  
                  ‘the old man’s house’

- b. NP[NP [den      gamle    mannen    med    skjegget]    s    hus]  
                  the      old          man-the    with    beard-the    ’s    house  
                  ‘the old man with the beard’s house’ (Newmeyer (1998: 266))

In the examples in (30) from Norwegian, the genitive *s* is a clitic marker attached to the full NP. Further evidence for this change is provided by *wh*-movement in Norwegian. Consider the following examples:

(31) a. Pers        bil

Peter's        car

b. Per        sin        bil

Peter    his-REFL    car

'Peter's car'

(Newmeyer (1998: 266))

(31a, b) are two possible structures for genitives, where the genitive noun phrase occurs with the clitic *-s* and with *sin*, the possessive reflexives. Usually, the clitic *-s* and the possessive reflexive *sin* are extracted along with the preceding nouns under *wh*-movement as shown in (32):

(32) a. Hvems        (bil)    er        det        ?

who+s        (car)    is        that        ?

'Whose (car) is that?'

b. Hvems        *sin*        (bil)    er        det ?

who        his-REFL    (car)    is        that ?

'Whose (car) is that?'

(Newmeyer (1998: 266))

Alternatively, *-s* and *sin* can be stranded under *wh*-movement as illustrated in (33).

(33) a. Hvem        er        det's    (bil)        ?

who        is        it+s        (car)        ?

'Whose (car) is that?'

- b. Hvem er det sin (bil) ?  
 who is (car) his-REFL (car) ?

‘Whose (car) is that?’

(Newmeyer (1998: 267))

Note that in (33a), *-s* is attached to the element preceding it. Newmeyer claims that the stranding option of *-s* illustrated in (33a) could not be obtained if *-s* were analyzed as an affix. Notice that the instances of degrammaticalization from an affix to a clitic observed here is the same process as the development of *-(e)s/-’s* illustrated in (23).

### 3.4.3.3. From Inflectional Affix to Word

Newmeyer provides as an instance of change from an inflectional affix to a word the inflectional suffix *-t* in Akkadian and Central Cushitic, which marks accusative case on nominals as shown in (34).

- (34) a. yâti (1s.Acc) / k(u)âti (2s.Acc) (Akkadian)

- b. -yət (1s.Acc)/ -kət (2s.Acc)/ N+-t (definite accusative noun) (Central Cushitic)

(c.f. Newmeyer (1998: 169))

In Modern Hebrew, the suffix *-t* has developed into a preposition *ʔet*, which precedes nouns and specifies for definite accusativity:

- (35) a. raʔiti ʔet ha-iš

I:saw DEF:ACC the:man

‘I saw the man.’

- b. sgór      ?et      hadélet  
close      DEF:ACC      the:door

‘Close the door.’

(Newmeyer (1998: 269))

#### 3.4.3.4. From Derivational Affix to Word

Newmeyer says that “one area where we find rampant upgrading—and hence clear counterexamples to unidirectionality—is the relatively common development whereby a derivational affix is detached from its stem and lexicalized as an independent word (270).” Among such examples is the development of the Dutch derivational suffix *-tig*, which has developed into an indefinite numeral with the meaning ‘umpteen, zillion,’ as exemplified in (36).

- (36) Ik heb het al *tig* keer gezegd

‘I have already said it umpteen times.’

(Newmeyer (1998: 270))

#### 3.4.3.5. From Clitic to Word

There exists an example of the development of a clitic to a free word in Ilokano, which is spoken in Philippines; the future clitic *-to* in (37), which is attested even in pre-Hispanic times, can be used independently in an affirmative response to a question or request for an action to be done in the future as shown in (38).

- (37) a. Mapan-ak-*to*

INTR:go-1s.ABS-FUT

‘I’ll go.’

b. Mapan-ka-*nto*

INTR:go-2s.ABS-FUT

‘You’ll go.’

(Newmeyer (1998: 270))

(38) a. Um-ay-ka                      no   bigat,        a

INTR:come-2s.ABS    FUT   morinig   PART

‘Come tomorrow. Okay?’

*To*

‘I’ll do that.’

(Newmeyer (1998: 272))

Newmeyer provides another example of the change from a clitic to a word from Hungarian, which is parallel with that of Ilokano. Hungarian has the versatile clitic *-is*, which can be glossed as ‘also’ and as an emphatic marker, among others, as illustrated in (39).

(39) a. Jancsi-*is*                      tudja                      ezt

Johnny also                      knows:it                      this:ACC

‘Jonny also knows this.’

b. Tudja-*is*                      a                      választ

know:PAST                      the                      answer:ACC

‘He did indeed know the answer.’

(Newmeyer (1998: 272))

The clitic *-is* can be used as a free word with the meaning ‘indeed’ in Modern Hungarian as shown in (40).

- (40) Jancsi meg- is érkezett  
Johnny did indeed arrive (Newmeyer (1998: 272))

It is noted that *is* in (40) is not a clitic because of the stress on it. More clearly, it can be used in the reduplicated form as an affirmation of both conjuncts of ‘or’ questions, as illustrated in (41).

- (41) Külföldről hozzák vagy itt gyártják  
abroad:from they:bring or here they:manufacture:it  
‘Do they import it or manufacture it here?’  
*Is-is*  
REDUP PART  
‘both’ (Newmeyer (1998: 272))

#### 3.4.3.6. From Functional Category to Lexical Category and from Pronoun to Noun

Newmeyer claims that the historical development of English *for* indicates the change from a functional category to a lexical category even though it appears at first glance to be a unidirectional change. English *for* was originally a preposition meaning location, roughly translated as ‘in front of,’ and was first used as a complementizer in late OE. In this usage, it began to be separated from the infinitive marker *to* by a pronoun (e.g. *for him to read*) in the fourteenth century. According to him, this means that *for* actually regained prepositional case-assigning properties; it became less grammatical than it had been.

Another example of the change discussed here is Modern English expletive *there*, whose origin, Newmeyer claims, lies in the OE demonstrative *þære*. The

development of *pære* is from demonstrative to a relative pronoun to an expletive pronoun. However, by many criteria, *there* is a noun head of a NP.<sup>9</sup> If this is so, we have an example of a change from a determiner to a noun, i.e. from a functional category to a lexical category.

### 3.4.3.7. From Hypotaxis to Parataxis

Newmeyer argues that at the level of the clause, not all changes have proceeded in an unidirectional fashion from parataxis toward hypotaxis, giving an example from Japanese as shown in (42).

- (42) a. Taro-wa    wakai(-yo).    Ga,    yoku    yar-u(-yo)  
           Taro-TOP   young.           But   well    do-PRES  
           ‘Taro is young. But he does a good job.’
- b. Taro-wa    wakai-ga,    yoku            yar-u(-yo)  
           Taro-TOP   young,           well            do-PRES  
           ‘Although Taro is young, he does a good job.’            (Newmeyer (1998: 274))

(42a) is simple conjunction and (42b) is subordination. If we follow the unidirectionality, it would be expected that sentences like (42a) should appear earlier than those like (42b). However, paratactic sentences such as (42a) were first recorded in the 17th century while hypotactic sentences like (42b) are attested much earlier.

### 3.4.4. Norde (2009)

Compared with other previous studies observed above, Norde’s (2009) definition

of degrammaticalization is rather restricted; she defines it as a single shift from the right to the left along the cline (26), which is repeated here in (43) and divides degrammaticalization into three distinct types, i.e. degrammation, deinflectionalization and debonding.

(43) content item > grammatical word > clitic > inflectional affix

(Hopper and Traugott (2003: 7))

Norde proposes a superordinate definition for all types degrammaticalization as follows:<sup>10</sup>

(44) Degrammaticalization is a composite change whereby a grammatical gram in a specific context gains in autonomy or substance on more than one linguistic level

(semantics, morphology, syntax, or phonology). (c.f. Norde(2009: 120))

Also, three important properties of degrammaticalization are mentioned; (i) there are no examples of degrammaticalization all the way up the cline; (ii) degrammaticalization changes basically involves shifts from an affix to a clitic or from a clitic to a grammatical word within ambiguous contexts; they exclude changes into content items, which are more appropriately considered as lexicalization;<sup>11</sup> (iii) degrammaticalization must result in a novel gram: if grams continue to have a less grammatical function, the change will not be qualified as a case of degrammaticalization.<sup>12</sup> In the following sections, we briefly observe each type of degrammaticalization.



### 3.4.4.1. Degrammation

Norde (2009) defines degrammation as in (45).

- (45) Degrammation is a composite change whereby a functional word in a specific linguistic context is reanalysed as a member of a major word class, acquiring the morphosyntactic properties which are typical of that word class, and gaining in semantic substance. (Norde (2009: 135))

According to him, degrammation typically occurs in ambiguous contexts, where a function word can be reanalyzed as a member of a major word class with ease, and it increases semantic content by means of pragmatic inference. In this sense, degrammation is different from lexicalization such as *up* in *to up the volume*, because in the latter case the function word is torn out of context, and neither reanalysis nor pragmatic inference is involved.

One instance of degrammation follows from Welsh, as shown in (46).

- (46) a. Yna yd aeth y gweisson yn ol y varch  
then PART went the lads after his horse  
  
a 'e arueu y Arthur  
and his weapons for Arthur  
  
'Then the lads went after / went to fetch his horse and his weapons for  
Arthur'



is of significance in this case. Norde observes that the difference between the genitive inflectional affix and the genitive *-(e)s* as a clitic is that the former operates on the word level whereas the latter operates on the phrase level. This is illustrated in the following examples from Old and Modern Swedish.<sup>15, 16</sup>

- (48) a.   ens                 riks                      mans                 hws  
          a-MASC.SG.GEN   rich- MASC.SG.GEN   man- MASC.SG.GEN   house       (Bild 642))
- b.   en     rik     mans     hus  
     [a   rich   man]’s   house  
     ‘a rich man’s house’  
(Norde (2009: 161))

In (48a), which is from OSw, the genitive inflection -s is separately attached to each element of the noun phrase, *ens riks mans*. In the MSw example (48b), on the other hand, the genitive -s is attached to the whole noun phrase. Similarly, the group genitive in MSw will indicate that the genitive -(e)s is a clitic since it is attached to the whole noun phrase, as shown in (49).

- (49) a. kille            mittemot    migs            ansikte  
[guy-DEF    opposite    me]=GEN    face  
‘the guy opposite me’s face’
- b. en        av        dom    jag    har    vuxit    upp    meds            lillasyster  
[one    of        them    I        have    grown    up        with] =GEN    little.sisiter  
‘one of the people I grew up with’s little sisiter’ (Norde (2009: 162))

It is also noted that another important characteristic of the contemporary genitive

-’s/-s in English and Swedish is that it functions as a determiner.

Norde argues that there are three stages for the development of the genitive -s in the history of Swedish. At the first stage, the Swedish genitive -s was a word maker, attached to all elements in noun phrases, as observed in (48a) and (50).

- (50) af mangs riks manz  
of many- MASC.SG.GEN rich- MASC.SG.GEN man- MASC.SG.GEN  
vlyko  
bad.luck- OBL (Bur 153)  
‘of the bad luck of many a rich man’ (Norde (2009: 162))

From the OSw to MSw periods, the genitive -s as a word marker gradually disappeared, with examples like (51) increasing.

- (51) a. mangel riddaris blod  
many- $\phi$  knight~GEN blood  
‘the blood of many a knight’ (Did 10)  
b. ... kom iak heem til fadhir mins hws  
... came I home to father- $\phi$  my- GEN house  
‘I came home to my father’s house’ (Bir 26)  
(Norde (2009: 163))

Notice that -s in (51) is not attached to stems, as is the word marker -s in the initial stage. According to Norde, the genitive -s at this intermediate stage was a phrase marker, and it started to expand to other declensions (e.g. feminine nouns) and the

plural, and it came to be attached to all kinds of inflection, as illustrated in (52).

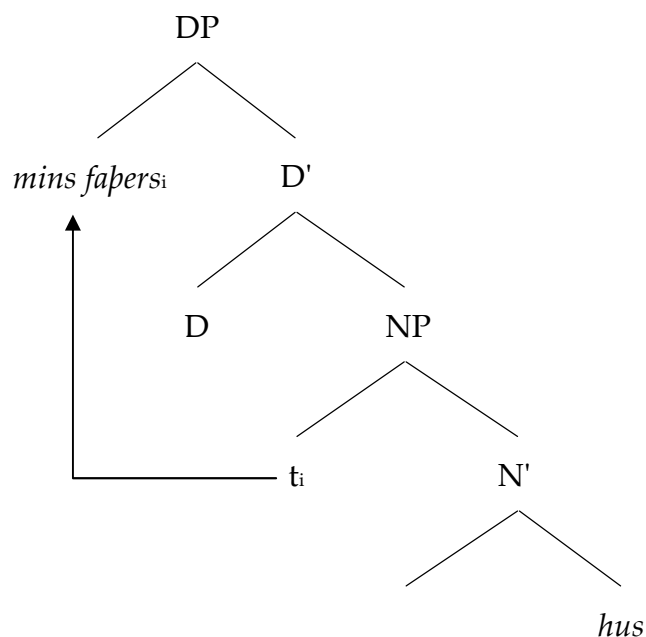
- (52) a. domkirky-o~s ‘cathedral’ (to FEM.SG.OBL)  
 b. ox-a-nna~s ‘the oxen’ (to PL.GEN.DEF)  
 c. menniski-or~s ‘people’ (to FEM.PL.NOM/ACC) (Norde 2006: 207))

These examples also indicate that the genitive *-s* changed to an edge-located morpheme which could be attached to various kinds of inflectional suffixes.

At the final stage, examples of the group genitive like (49) began to appear. Assuming that the genitive *-s* became a clitic at this stage, Norde argues that the genitive *-s* did not change from a word marking inflection to a clitic in a single step, but went through an intermediate stage of a phrase marker.

The series of development of Swedish genitives can be summarized as follows. In OSw, *-s* is attached to each word of a noun phrase, which is base-generated in Spec-NP and moved to Spec-DP, as shown in (53).

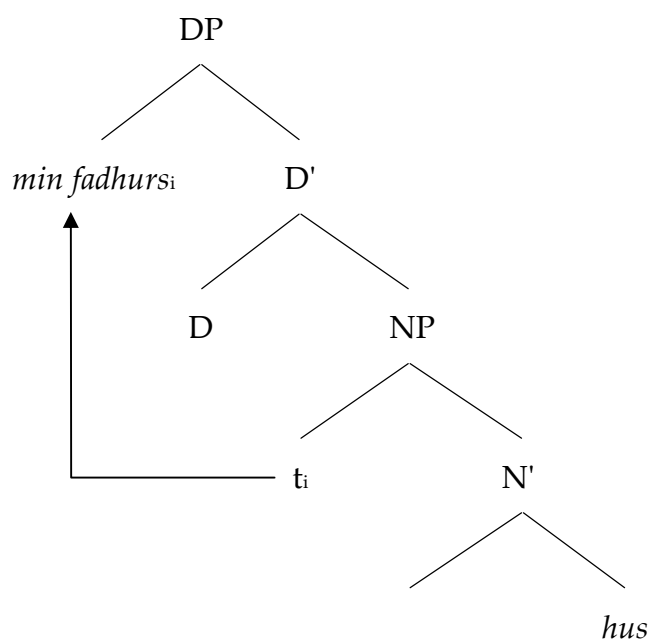
- (53) mins faþers hus ‘my father’s house’



(c.f. Norde (2009: 165))

In (53), it is obvious that *-s* cannot be separated from each genitive noun phrase. The structure of genitive noun phrases subsequently changed to the one illustrated in (54) in the intermediate stage, where *-s* functions as a phrase marker and it still appears in Spec-NP/DP.

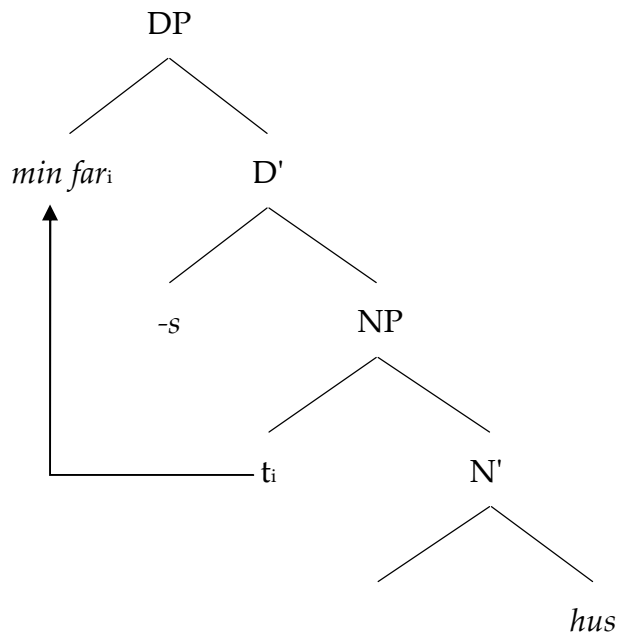
(54)     *min fadhurs hus* 'my father's house'



(c.f. Norde (2009: 165))

In ModSw, *-s* began to be base-generated in the head of DP, separated from the genitive noun phrase, as illustrated in (55).

(55) min fars hus 'my father's house'



(c.f. Norde (2009: 165))

It is claimed that at some point between the MSw and ModSw periods, learners reanalyzed (54) as (55): a phrase marker *-s* was reanalyzed as a separate element placed in the head of DP. Once this reanalysis has been done, *-s* came to be able to be added to larger noun phrases, resulting in group genitives such as (49).

Norde's argument of the development of the Swedish genitive is very similar to that of the English genitive *-(e)s/-'s* as discussed in section 3.3.4. Adopting her analysis, I argue that the development of *-(e)s/-'s* is one instance of deinflectionalization.<sup>17</sup>

### 3.4.4.3. Debonding

The last subtype of degrammaticalization is debonding, which Norde defines as follows:

- (56) Dobonding is a composite change whereby a bond morpheme in a specific linguistic context becomes a free morpheme. (Norde (2009: 186))

It is claimed that the “specific linguistic context” in (56) is different from the one in the previous definitions of degrammation and deinflectionalization: a morpheme which undergoes debonding is reanalyzed within the context of their own construction, and they retain their previous functions. Once a morpheme has undergone debonding, it starts to appear in other constructions. On the other hand, a morpheme which has undergone deinflectionalization still remains dependent on other elements.

A well-known case of debonding is the development of the Irish first person plural suffix *-mid/-muid* discussed by Bybee, Perkins and Pagliuca (1994) in section 3.4.2.<sup>18</sup> As observed above, the development of *muid* is as illustrated in (57).

- (57) a. *molfa-maid*  
praise-FUT.1PL
- b. *molfaid muid*  
praise-FUT we  
‘we will praise’ (Norde (2009: 204))

In Old Irish (c. 600 - 900), person and number markers were exclusively inflectional, but in Middle Irish (c. 900 - 1200), the third person singular form of a verb + a clitic person pronoun started to appear. By early Modern Irish (c. 1200 - 1600), verbs became to have two paradigm, a synthetic and analytic one, as shown in Table 6.



**Table 6** Synthetic and analytic verbal paradigms of *mol* ‘to praise’  
in early Modern Irish

		Synthetic	Analytic
SG	1	molfad	molfaidh mé
	2	molfair	molfaidh tú
	3	molfaidh	molfaidh sé/sí
PL	1	molfamaid	molfaidh sinn
	2	molfaidhe	molfaidh sobh
	3	molfaid	molfaidh said

(c.f. Norde (2009: 204))

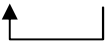
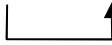
In present-day Irish, the analytic forms are more common than the synthetic ones.

The first person plural suffix was first renalyzed as an independent pronoun in the future-tense paradigms. Later, it spread to other verbal paradigms, and eventually, replaced the pronoun *sinn* in the analytic paradigms. As for the case of debonding discussed here, there are two factors which facilitated the rise of the free pronoun *muid*. First, Irish ceased to be a *pro*-drop language so that subject-verb agreement came to be obligatorily marked by an overt personal pronoun. Second, the affix of the verbs started to behave like clitics phonologically. Therefore, it can be concluded that the development of *muid* into an independent pronoun was brought about from syntactic and phonological factors.

### 3.5. The Distribution of Genitives in the History of English

This section investigates the distribution of genitives within noun phrases in the history of English by using historical corpora. Then, I propose a syntactic analysis

of the result of this investigation, based on the analysis of the development of genitives proposed in (23), together with the licensing condition on definiteness.

- (23) a.  $[_{DP} (DP) [_{D'} D [_{NP} (DP) [_{N'} N ]]]]$   
  
 Inherent Case Assignment
- b.  $[_{DP} DP_i [_{D'} -(e)s/-'s [_{NP} t_i [_{N'} N ]]]]$   
  
 Structural Case Assignment

### 3.5.1. Historical Data

As observed in 3.1, there are two kinds of genitive in PE: the genitive as a determinative and the genitive as a modifier, as shown in (58a, b), respectively.

- (58) a. the/her/Jenny's/my daughter's (new) desk (genitive as determinative)  
 b. several/new women's universities (genitive as modifier)  
 (cf. Quirk et al. (1985: 326-328))

The syntactic position of the genitives in (58a), which precede the adjective *new*, corresponds to that of determiners and possessive pronouns, whereas the genitives in (58b) show the distribution similar to adjectives, following other modifiers like *several* and *new*. Our focus here is on the genitive as a determinative, excluding the genitive as a modifier.

The word order patterns to be examined in historical corpora are given in (59).

(59) a. \*Det - Gen - Adj - Noun

b. Det - Adj - Gen - Noun

c. \*Gen - Det - Adj - Noun

d. Gen - Adj - Noun

e. Adj - Gen - Noun

Det = determiner (article or demonstrative), Gen = genitive noun phrase,

Adj = adjective

According to the investigation in chapter 2, adjectives do not precede determiners in all the historical periods of English, so such word orders are excluded from (59). In addition to PPCME2 and PPCEME, *The York-Toronto-Helsinki Parsed Corpus of Old English* (henceforth, YCOE) was used to investigate the distribution of genitives from OE to EModE. As a result of the investigation, the word order pattern in (59a) is not attested in all the three corpora, and only two examples of the word order pattern in (59c) were found in PPCEME. Therefore, it was almost impossible for both determiners and genitives to precede adjectives within the same noun phrase in early English. The distribution of the other word order patterns in (59) is summarized in Table 7.

**Table 7**

	Det-Adj-Gen-N	Adj-Gen-N	Gen-Adj-N
YCOE	42 (76.3%)	3 (5.5%)	10 (18.2%)
PPCME2	73 (33%)	69 (31.2%)	79 (35.8%)
PPCEME	182 (66.2%)	37 (13.4%)	56 (20.4%)

Table 7 includes examples such as in (60), in which genitive noun phrases are genitives as a modifier.

- (60) a. ðe       newe     kynges    tyme  
           the       new     king's    time  
           'the new king's time' (CMPOLYCH,VIII,83.3535:m3)
- b. worðy    mannes    sones  
           worthy   man's     son  
           'a worthy man's son' (CMAELR3,33.188:m3)
- c. russet    sheeps     wool  
           rust     sheep's   wool  
           'rust sheep's wool' (ARMIN-E2-H,42.260:e2)

Taylor (1996) argues that genitives as a modifier have the compound structure in PE, as shown in (61).

- (61) the torn [<sub>N</sub> woman's magazine] (c.f. Taylor (1996: 290))

If this is true of all the historical periods of English which seems to be supported by their distributional properties, they should be syntactically distinguished from genitives as a determinative, which were argued to have undergone the change in (23).<sup>19</sup> Thus, excluding examples of genitives as a modifier, we obtained the resulting distribution in Table 8.

**Table 8**

	Det-Adj-Gen-N	Adj-Gen-N	Gen-Adj-N
YCOE	42 (74.5%)	3 (5.9%)	10 (19.6%)
PPCME2	13 (13.5%)	4 (4.2%)	79 (82.3%)
PPCEME	13 (18%)	3 (4.2%)	56 (77.8%)

It seems that adjectives rarely precede genitives in the same noun phrase without determiners. Here are examples of the word order patterns Det-Adj-Gen-N and Gen-Adj-N, respectively.

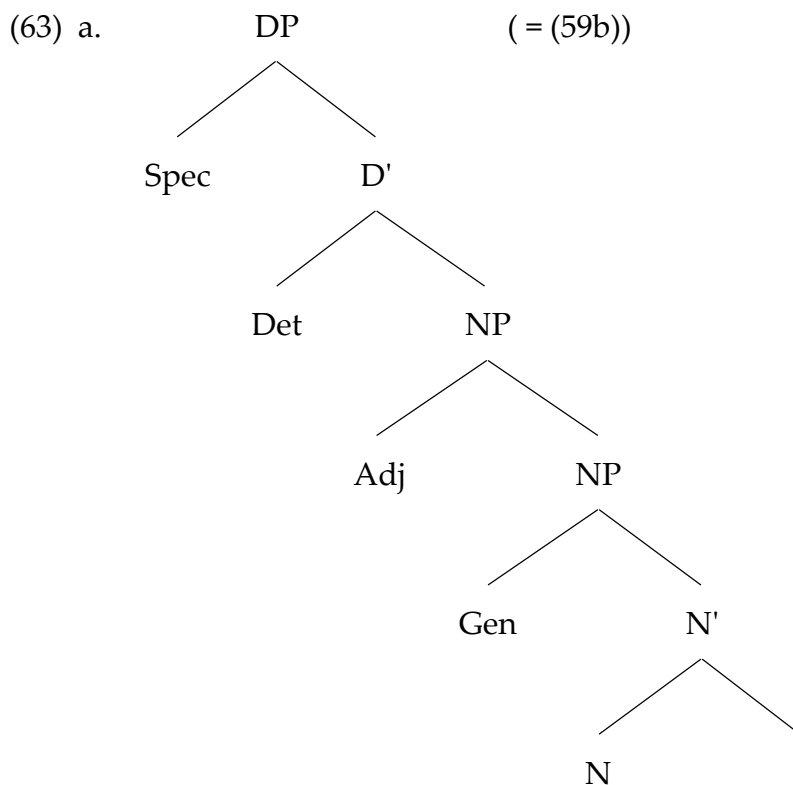
- (62) a. ðe wrecche Adames soule  
           the wretch Adam's soul (CMVICES1, 115.1401: m1)
- b. Moises longe trauaile  
       Moise's long travel (CMCLOUD,127.739: m3)

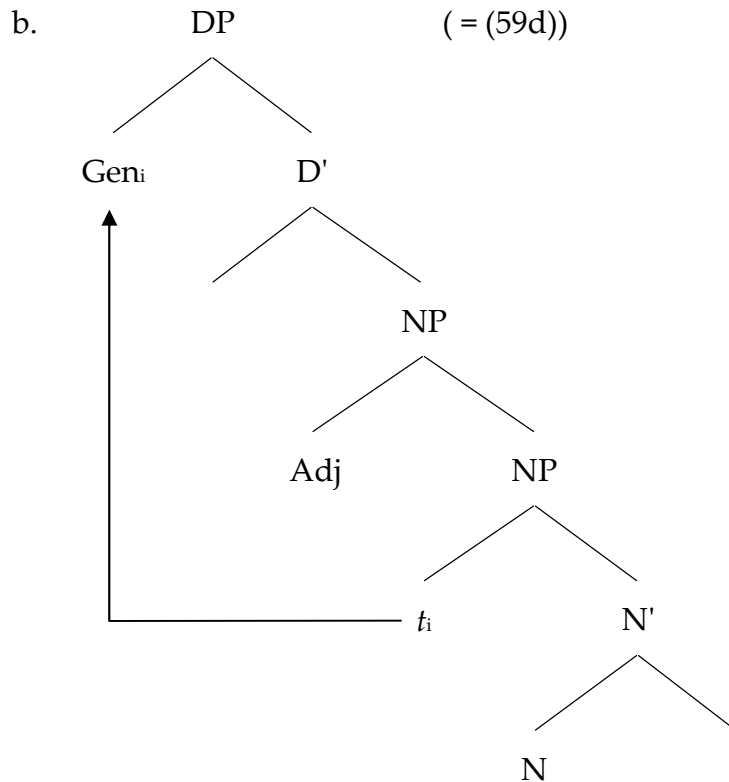
There are three interesting properties revealed from the results in Table 8. First, the word order which is not allowed in PE, namely Det-Adj-Gen-N, was possible in OE. However, this word order pattern declined in ME and EModE, and was finally lost by PE. Second, when determiners and genitives cooccur within the same noun phrase, the only possible word order pattern is Det-Adj-Gen-N, where genitives follow both determiners and adjectives. Third, when genitives and adjectives cooccur in the same noun phrase without determiners, genitives show a strong tendency to precede adjectives. The next section provides a syntactic account of the distribution of genitives in the history of English including these facts, in terms of the development of genitives discussed in section 3 and the licensing condition on

definiteness.

### 3.5.2. A Syntactic Analysis of the Distribution of Genitives in the History of English

It is observed in Table 8 that genitives may cooccur with determiners in OE, and they follow adjectives within the same noun phrase in such cases. On the other hand, in cases where genitives do not cooccur with determiners, they show a strong tendency to precede adjectives throughout the history of English. On the basis of these facts, I propose the following two structures with genitives in OE.





Following the conclusion in Chapter 2, I assume that determiners occupy the head D since OE, genitives are base-generated in Spec-NP, and adjectives are adjoined to NP. In (63a), genitives remain in their base position, where they receive inherent genitive Case from the head N. As a result, the word order pattern in (59b) is derived in which genitives follow both determiners and adjectives. On the other hand, in (59d), which does not contain determiners, genitives are base-generated in Spec-NP and receive inherent genitive Case from the head N. Then, they move to Spec-DP, yielding the word order pattern Gen-Adj-N in (59d).

An immediate question here is what the motivation for the movement of genitives in (63b) is. This can be attributed to the licensing condition on definite noun phrases in (64) proposed by Ibaraki (2009) (which was discussed in Chapter 2).

- (64) Definite noun phrases are licensed iff the [+definite] feature of D enters into a checking relation with its matching element(s) in a Spec-head and/or a head-head configuration. (Ibaraki (2009: 84))

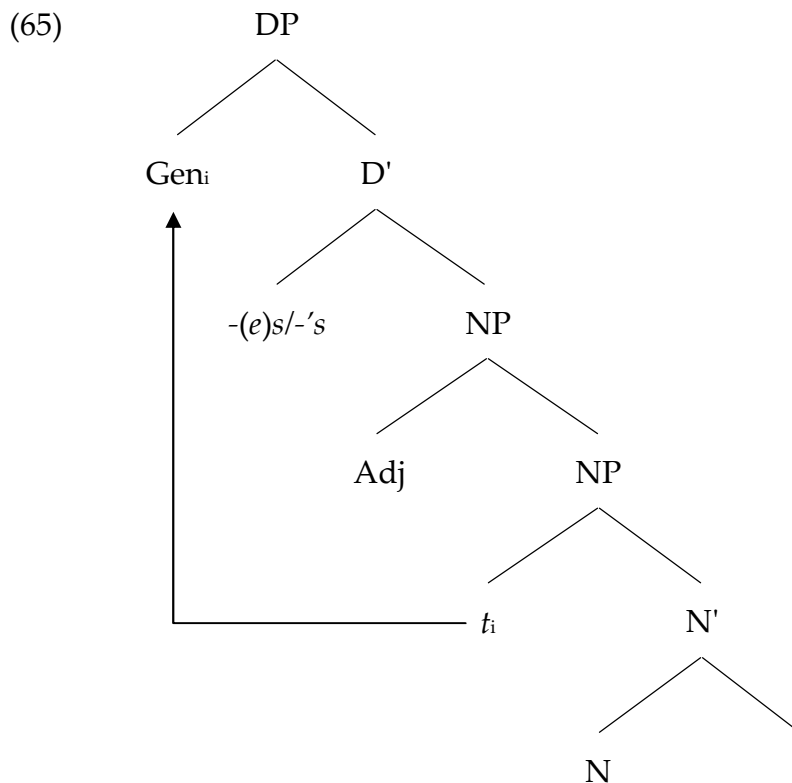
Given this condition, definite noun phrases have the [+definite] feature on the head D which needs to be checked by definite elements such as determiners and determinative genitives. The derivations of the structures in (63) are naturally explained in terms of the condition in (64): in (63a), the head D is occupied by determiners, which in turn serve to check the [+definite] feature of D under a head-head configuration. On the other hand, since there are no definite elements in D or Spec-DP in the base structure of (63b), genitives need to move up to Spec-DP in order to check the [+definite] feature of D under a Spec-head configuration.

If the arguments above are on the right track, it immediately follows that the word order patterns in (59a, c) are extremely rare. In light of the structure in (63a), there is no landing site for genitives between determiners and adjectives in (59a). As for (59c), it might be possible to assume that genitives move to Spec-DP, but such movement will be redundant in terms of the licensing of definiteness, because determiners occupy the head D, checking the [+definite] feature of D. Thus, the movement of genitives is prohibited in (59a, c), thereby accounting for the extreme rarity of these word order patterns.

As we can see from Table 8, the frequency of the word order pattern where determiners and genitives cooccur within the same noun phrase declined after ME, and it seems to have been lost during the ModE period. The loss of the word order pattern Det-Adj-Gen-N can be attributed to the development of *-(e)s/-'s* from the genitive inflection to a D element. In section 3.3.3, it was argued that the origin of



-’s is the genitive inflection *-(e)s* in OE and ME, and it changed into a structural Case assigner in the head D in EModE, taking over the task of the head N as an inherent Case assigner. Therefore, determiners can no longer appear in the head D in noun phrases with genitives, because the position is already occupied by *-(e)s/-’s*, as shown in (65).



Note that *-(e)s/-’s*, which is a D element and Case assigner, serves to check the [+definite] feature of D under a head-head configuration in (65). Here, the motivation of the movement of genitives is to provide a host for the clitic *-(e)s/-’s* to attach to.<sup>20</sup> The development of *-’s* was completed during EModE, with the result that only the word order pattern in (59d) has survived into PE.<sup>21</sup>

### 3.6. Concluding Remarks

This chapter has discussed the development of genitives in the history of English, arguing that *-’s* has developed from the genitive inflection *-(e)s*, and it is now a genitive Case assigner occupying the head D. It is also proposed that a series of change of *-(e)s/-’s* is one instance of degrammaticalization (deinflectionalization in Norde’s term). As a consequence of this analysis, it has been demonstrated that the distribution of genitives in the history of English can be naturally accounted for in terms of the development of *-’s* and the licensing condition on definiteness.

## Notes to Chapter 3

1 Note that the former has been the standard opinion in philological studies. See Curme (1931), Altenberg (1982), Rissanen (1999) and Rosenbach (2002) among others.

2 See also Table 2 in section 3.2.2. The ratio of the *his*-genitive is still low even in the seventeenth century.

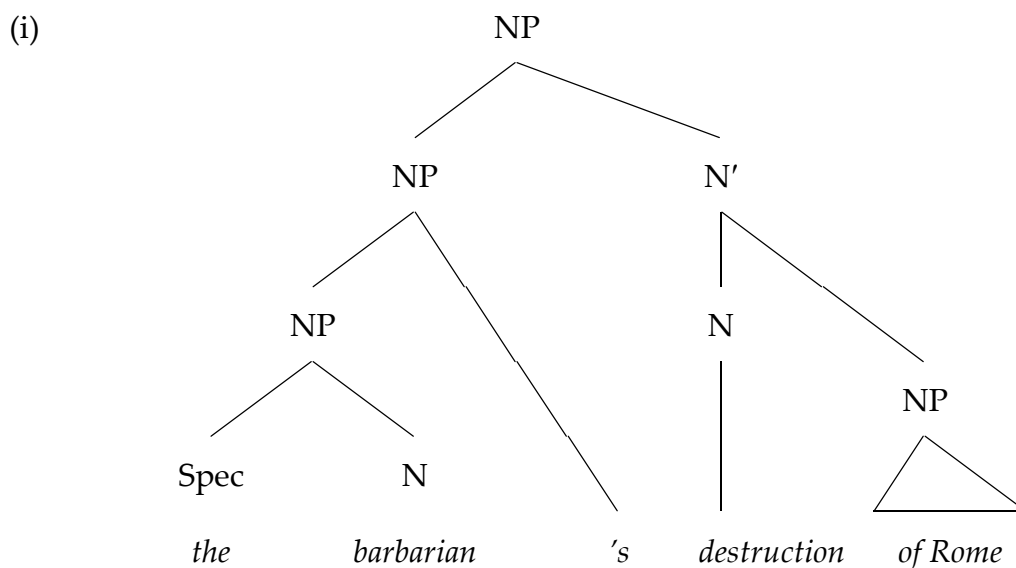
3 As for the examples like (7), one might object that even though *his* agrees with the element in its specifier position, the morphology corresponding to the agreement, e.g. *her* or *its*, is not realized in much the same way that a morphology of the verb which agrees with its subject is not always realized. However, Ohmura's analysis is still problematic in other respects as we will see below.

4 Although the example (11b) has *'s* as the contracted form of *his*, this does not constitute evidence that *-s* has developed from the *his*-genitive because of the extreme rarity of the latter. It would be that the genitive inflection *-(e)s* developed into *-s* first and then the *his*-genitive started to be expressed as *-s* by analogy. Both processes did exist, but it is pretty clear that the direct origin of *-s* is the genitive inflection.

5 Abney (1987) recognizes three types of gerunds in English, i.e. Acc-ing, Poss-ing and Ing-of. The structures of these gerunds differ with regard to the projection path of V; conversion to a nominal category occurs at V in Ing-of type, at IP in Acc-ing type, and at VP in Poss-ing type as illustrated in (15). The head N is not involved in

all these types of gerunds.

6 Anderson assumes two different structures for genitives, recognizing two types of nouns, i.e., concrete and abstract ones. The structure for a concrete noun, e.g. *house*, which does not assign a  $\theta$ -role, is (24) where 's  $\theta$ -marks and assigns genitive Case. The structure for an abstract noun, e.g. *reliability*, is as follows.



(c.f. Anderson (1983-4: 13))

Anderson assumes that abstract nouns can assign a  $\theta$ -role to a noun phrase and genitive Case is assigned in the context [<sub>NP</sub> \_\_\_\_ ] (Chomsky (1981)).

7 I assume that the head N continues assigning a  $\theta$ -role to a noun phrase even after it lost their capacity to assign inherent genitive Case to nouns. As for the emergence of locative/temporal genitives such as (12), it is pointed out by several scholars (e.g. Mitchell (1985)) that they already existed in OE. However, they seem to have been rare in OE and ME, as Ohmura (1995) and Rosenbach (2002) observe that their

frequency increased during the ModE period. According to Ono and Nakao (1980: 288), locative and temporal genitives in OE belong to the class of so-called “adverbial genitives,” which also occur outside noun phrases and hence are licensed by some other mode(s) than inherent Case assignment by N. Therefore, as far as genitive Case assigned by N is concerned, the analysis in this thesis can be maintained that it was only assigned to arguments of nouns in OE, and sporadic cases of locative and temporal genitives observed in OE noun phrases would instantiate adverbial genitives that happen to appear within noun phrases. See Rosenbach (2002) for other factors in the spread of locative and temporal genitives in EModE than the change of genitive Case assignment argued for in this thesis.

8 Newmeyer (1998) takes examples of changes from right to left along the cline in (26), which are sufficient to refute the unidirectionality. Occasionally, lexicalization is not considered as genuine cases of reversals of the directionality in the literatures. However, Newmeyer suggests that attributing lexicalization to some process distinct from degrammaticalization would have the effect of ruling out the great majority of potential counterexamples to the unidirectionality.

9 *There* raises over the verb *seem* (iia), occurs as a passive subject (iib), inverts over auxiliaries (iic) and can be coindexed with tags (iid).

(ii) a. There seems to be a problem.

b. There was believed to be a problem.

c. Is there a problem?

d. There is a problem, isn't there?

(Newmeyer (1998: 187))

Based on the distribution of *there* in (ii), he considers it as NP.

10 Norde (2009) adopts the term “gram” from Bybee, Perkins, and Pagliuca (1994: 2) to cover all sorts of grammatical morphemes (e.g. function words, particles, clitics, affixes), including phrasal grammatical items such as auxiliary *be going to*.

11 If the constructional identity of a degrammaticalized item is preserved, a shift from a grammatical word to a content item will also be qualified as degrammaticalization. See section 3.3.4.2.3.1.

12 For instance, in the history of English, *man*, which was originally a noun, had grammaticalized into an indefinite pronoun ‘one’ in OE and at one period, *man* as a pronoun became obsolete. As a consequence, *man* is only used as a noun in PE. The series of change does not count as degrammaticalization since non-grammaticalized *man* had never disappeared from English

13 Middle Welsh *yn of* itself had been grammaticalized to a compound preposition which developed from the preposition *yn* ‘in’ plus the noun *ol* ‘truck(s), path, trail.’

14 This splitting is ‘divergence’ in the sense of Hopper and Traugott (2003). The phrase *yn ol* continues as a preposition whereas the verbal counterpart has developed into *nôl*.

15 The periods of the Swedish language are as follows; Runic Swedish (henceforth,

RS) 800 - 1225, Olde Swedish (henceforth, OSw) 1225 - 1375, Middle Swedish (henceforth, MSw) 1375 - 1526, Early Modern Swedish (henceforth, EModSwe) 1526 - 1732 and Modern Swedish (henceforth, ModSw) 1732 - present.

16 Norde mentions the difference between the Swedish and English genitives; the latter is less easily analyzed as a clitic for several reasons. Since the difference between Swedish and English is out of scope of my research, I will not discuss further.

17 One might wonder whether the intermediate stage existed for English genitive *-(e)s*. It might be difficult to discern such intermediate stage for English since no examples illustrated in (52) where *-s* functions as an edge-located morpheme. I leave this point open for further study.

18 Norde argues against Bybee, Perkins and Pagliuca's analysis of *muid*, saying that there is no evidence for the paradigm in Table 5. She also claims that two out of the three modern dialects still have the first person singular suffix, i.e. *molaim*; this means that if debonding of the first person plural suffix was motivated by paradigm pressure as they argue, this should have happened to the first singular suffix as well.

19 I will not discuss genitives as a modifier further here, just noting the possibility that their compound structure has been constant throughout the history of English and they are assigned genitive Case in a different way from genitives as a determinative.

20 The same kind of motivation can be found in other movement operations: for example, auxiliaries such as *have* and *be* in PE and main verbs in languages where V to T movement exists move to the head T, in order to provide a host for the inflectional feature in T to attach to.

One might suggest the possibility that *-(e)s/-'s* would be lowered to NP and attached to the genitive noun. However, such operation will yield the violation of the licensing condition on definiteness since there would exist no element checking the [+definite] feature on the head D.

21 Note in Table 8 that the word order pattern Det-Adj-Gen-N is still attested in PPCEME; in fact, its frequency is a little higher than that in PPCME2. It might be conjectured that besides structural genitive Case, inherent genitive Case was still available in the structure of (63b) in EModE, which would represent a case of grammatical competition in the sense of Kroch (1989), where two grammatical options compete and one of them gradually replaces the other in the transitional period of syntactic change. As for the higher frequency in PPCEME, it is partly due to the preference of a particular collocation by the same author: among the relevant 13 examples in PPCEME, one author provides 4 examples of the collocation *the first/second Adams N* and another author provides 2 examples of the collocation *the same Leemynster wolle*.



## Chapter 4

## *The Loss of Postnominal Genitives*

## 4.1. Outline

This chapter discusses the loss of postnominal genitives in the history of English. It has often been said that rather various kinds of elements can follow the head noun they modify in early English because of the rich system of Case ending and other inflectional morphology. One of these is genitives, whose postnominal usage is said to have disappeared during the early ME period. Some examples of postnominal genitives are shown in (1).

- (1)    þæt manige þara selestena cynges þena þe ...  
        that many    the:GEN best:GEN king's                    thanes ...    (ASC(A) 896.8)  
        ‘that many of the best royal thanes who ...’    (Allen (2006))

In the examples, the genitive noun phrases *para selestena cynges* ‘the best kinge’s’ follows the head nouns *manige* ‘many.’ Such postnominal usage of genitives is said to have been lost during the early ME period (Ohmura (1995), Koike (2006) and Allen (2008) among others). Also, it is often said that the leveling of inflections had certainly made postnominal genitives impossible.

The purpose of this chapter is to provide an account for the loss of postnominal genitives. I argue that the development of the genitive *-(e)s/-'s*, which we have

discussed in chapter 3, had great influences on the loss of postnominal genitives in the history of English. Specifically, the development of the genitive *-(e)s/-'s* from an affix to a D element came to prevent a head noun of postnominal genitives from moving to a higher position within the double DP structure, which leads to the loss of the double DP structure of postnominal genitives.

The organization of this chapter is as follows. Section 4.2 reviews some previous studies on the loss of postnominal genitives and points out their problems. In section 4.3, before discussing how postnominal genitives disappeared in the history of English, I give a syntactic analysis on the development of prenominal and postnominal genitives within the recent Minimalist framework of generative grammar. Then, on the basis of the analysis, it is argued that head movement within the double DP structure of postnominal genitives came to be impossible because of the development of *-(e)s/-'s* into a D element. Section 4.4 concludes our discussion.

## **4.2. Previous Studies**

This section reviews two previous studies on postnominal genitives and their loss, Allen (2008) and Ohmura (1995), in sections 4.2.1 and 4.2.2, respectively. Some of their problems are pointed out in section 4.2.3.

### **4.2.1. Allen (2008)**

#### **4.2.1.1. Postnominal Genitives in Old English**

Allen (2008) observes that in OE, genitives could be positioned after their heads as shown in (2).

- (2) a. of    ðære            foresædan    cyrcan            þæs  
of    the:(F).DAT.SG aforesaid    church:(F).DAT.SG the:(M).GEN.SG  
eadigan            Stephanes  
blessed:(M).SG    Stephen: (M)GEN.SG  
‘from the aforementioned church of the blessed Stephen’  
(cocathom2,ÆCHom\_II,2:12.14.263)
- b. þæt    wæron    þa    ærestan    scipu    deniscra            monna            þe ...  
that    were            the    first            ships    Danish:GEN.PL    man:GEN.PL which ...  
‘those were the first ships of Danish men which ...’  
(cochronA-1,ChronA\_[Plummer]:787.4.582(ASC(A)787.5))  
(Allen (2008: 83))

She argues that since postnominal genitives were a full NomP structure,<sup>1</sup> it is no surprise that postnominal genitives are recursive; they could contain another postnominal genitive within them, as shown in (3).

- |     |   |                    |               |                          |
|-----|---|--------------------|---------------|--------------------------|
| (3) | ðære  | ungemetgunge       | ðæs           | ymbehogan                |
|     | the:F.DAT.SG                                    | excess: (F).DAT.SG | the: M.GEN.SG | care                     |
|     | ðæra  | uterra             | ðinga         |                          |
|     | the: N.GEN.PL                                   | outer: GEN.PL      | thing: GEN.PL |                          |
|     | ‘the excess of the care about the outer things’ |                    |               | (cocura,CP:18.141.2.957) |
|     | (Allen (2008: 84))                              |                    |               |                          |

In (3), the genitive *ðæs ymbehogan* immediately following the head noun *ungemetgunge* is taking another genitive *ðæra uterra ðinga* as its complement. Also, it

- |        |  |                     |               |                           |
|--------|--|---------------------|---------------|---------------------------|
| (4) a. | ð̥a  | trumnesse           | ð̥ære         | Godes                     |
|        | the:F.ACC.SG                               | strength:(F).ACC.SG | the: F.GEN.SG | God:(M)GEN.SG             |
|        | giefe                                      |                     |               |                           |
|        | grace:(F).GEN.SG                           |                     |               |                           |
|        | ‘the strength of God’s grace’              |                     |               | (cocura,CP:36.247.6.1614) |
| b.     | ð̥one                                      | tohopan             | deadra        | monna                     |
|        | the:M.ACC.SG                               | hope:(M).ACC.SG     | dead:GEN.PL   | man:GEN.PL                |
|        | ærestes                                    |                     |               |                           |
|        | resurrection:(M).GEN.SG                    |                     |               |                           |
|        | ‘the hope of the resurrection of dead men’ |                     |               | (cocura,CP:47.363.3.2456) |
|        | (Allen (2008: 84))                         |                     |               |                           |

In (4a), the postnominal genitive phrase is *ðære Godes giefe*, where the demonstrative *ðære* enters into agreement with the head *giefe* in gender and number. *Godes*, a masculine singular element, seems to have nothing to do with the agreement within the genitive noun phrase since *ðære* inflects for feminine. Thus, Allen regards the genitive *Godes* as a low prenominal genitive, which is placed inside the postnominal genitive phrase. Similarly, the postnominal genitive in (4b), *deadra monna ærestes*, consists of a head noun *ærestes* and a prenominal genitive *deadra monna*. Notice again that the adjective *deadra* enters into agreement in number with *monna*, not with the singular *ærestes*, which seems to agree with the head of the whole noun phrase, *tohopan*. Thus, the genitive noun *deadra monna* is placed within the postnominal

genitive phrase headed by *tohopan*.

We have just observed the two possibilities of a complicated postnominal genitive in (3) and (4). However, these types of genitives can be observed in PE, as shown in (5).

- (5) a. the house of the friend of the girl
- b. the house of the girl's friend (Allen (2008: 84))

In (5a), the *of*-genitive *of the friend* takes another *of*-genitive, *of the girl* as its complement while the prenominal genitive *girl's* is contained inside the *of*-genitive in (5b). Allen notes that there is a difference between (5a) and (5b); the usage of the preposition *of* tells us that the *of* phrase is concerned directly with the noun which precedes it whereas prenominal genitive phrases are concerned directly with the noun which follows them. According to her, this relatively straightforward process makes possible either type of genitives within *of*-genitives in PE.<sup>2</sup> On the contrary, a straightforward process could not be obtained in OE postnominal genitives; it would not be immediately clear whether postnominal genitives in OE were related to the noun which preceded them or to another noun which followed them, as observed in (3) and (4). Allen suggests that this processing difficulty might have caused disfavoring of postnominal genitives.

#### 4.2.1.2. Postnominal Genitives in Middle English

Postnominal genitives were on the decline in late OE, at a time when the loss of inflection had been taking place. Allen observes that all postnominal genitives in ME begin with a word inflected for the genitive Case, otherwise genitives cannot

postmodify the head noun. Thus, examples like (6a) were possible but examples like (6b) were not.

- [illegible]

Allen suggests that examples like (6b), where the demonstrative *pe* following the head noun *sunu* does not inflect, are not found in any texts. The demonstrative *pere* in (6a), on the other hand, inflects for the genitive Case, singular and masculine, which makes it possible for the genitive phrase to postmodify the head noun. Based on this, we might expect to find some postnominal genitives consisting of a single word inflected for the genitive Case, but she argues that such examples are not anticipated because genitives of this sort always strongly tended to be prenominal. Therefore, limited to the form *demonstrative* plus *noun*, postnominal genitives were possible as long as the demonstrative showed inflection for the genitive Case. Even in twelfth century, we continue to find postnominal genitives in inflectional rich texts, as shown in (7).

- (7) Heo        understod        ealle        þe        word        *þære*        ænglen ...  
 She        understood        all        the        words        the-Gen        angel-Gen  
 ‘She understood all the words of angels ...’ (CMKENTHO,138.107)(Festis189)  
 (Allen (2008: 160)))

During the early ME period, *of*-genitives came to be used instead of postnominal genitives even though the genitives show inflection as illustrated in (8).

- (8) for þære deorewurðnysse of þære  
 for the:F.DAT.SG preciousness:(F).DAT.SG of the:F.DAT.SG  
 forme dohter  
 from daughter(F)  
 ‘because of the preciousness of the first daughter’

(CMKENTHO,139.153) (Festis 242)

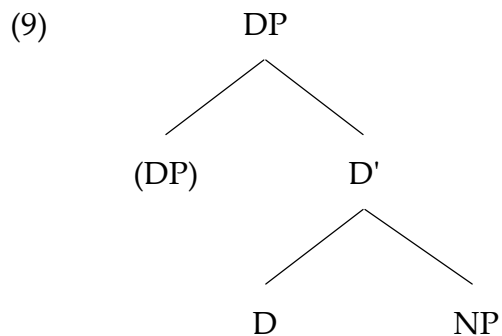
(Allen (2008: 160))

By the end of twelfth century, postnominal genitives were extinct. Allen argues that the loss of inflections in late OE was not a direct cause of the loss of postnominal genitives. Adopting the view of Thomas (1931), Allen argues that the increased reliance on word order in early ME is more crucial than the result of the leveling of inflections, and that there was a tendency to restrict genitive phrases to the prenominal position, which was part of a larger trend towards using word order rather than inflection as the primary signal of grammatical relations. She suggests that this does not mean that the loss of inflections did not play an important role; the deterioration of inflections was an important additional cause of the abandonment of postnominal genitives, along with the availability of the *of*-genitive as an alternative.<sup>3</sup>

#### 4.2.2. Ohmura (1995)

Adopting the DP Hypothesis proposed by Abney (1987), Ohmura argues that

noun phrases in PE have the internal structure illustrated in (9) and the genitive Case assignment is implemented in accordance with the conditions in (10).



(10) a. D selects NP

b. AGR contained in D assigns the genitive Case to a noun phrase in Spec-DP

(cf. Ohmura (1995: 49))

According to the conditions in (10), the genitive Case is assigned to a noun phrase in Spec-DP by the head D. However, the system of Case assignment in PE does not seem to apply for genitive noun phrases in early English, given the examples in (11) which would have the structures in (12).

(11) a. þæt holige godes word

that holy God's word

'God's holy word'

(ÆHom IV. 294-Allen (1975:3))

b. on þære forman Christ's bec

in the first Christ's book

'in the first book about Christ'

(ÆCHom I 78.1-Mitchell 1985)



(BlHom 29.26-Mitchell 1985)

- (12) a. [DP [D þæt ] [NP halige *godes* word]] (= (11a))  
 b. on [DP [D þære ] [NP forman *Christes* bec]] (= (11b))  
 c. he wæs [DP [D ] [NP true *Godes* Sunu]] (= (11c)) (Ohmura (1995: 49))

In (11) and (12), the nouns are assigned the genitive Case, but they are not placed in Spec-DP. It seems to be plausible to assume from this fact that, as discussed in chapter 3, genitive Case assignment in OE was implemented inherently by the head N under  $\theta$ -role assignment based on the uniformity condition (13).

- (13) If  $\alpha$  is an inherent Case-marker, then  $\alpha$  Case-marks NP if and only if  $\theta$ -marks the chain headed by NP (Chomsky (1986: 194))

Assuming that the head N assigns the genitive Case to prenominal genitives, Ohmura argues that this inherent Case assignment does apply for postnominal genitives like (14).

- [illegible]

There were many examples like (14) in OE. However, postnominal genitives began

to decrease its number from the late OE period, when *of*-genitives like (15) were making great inroads.

- (15) a. goddesse of love  
           goddess of love (*The Cantarbury Tales* I, 1904)
- b. the pleasance of *myn herte*  
           the pleasance of my heart (*The Canterbury Tales* IV, 304)
- (Ohmura (1995: 51))

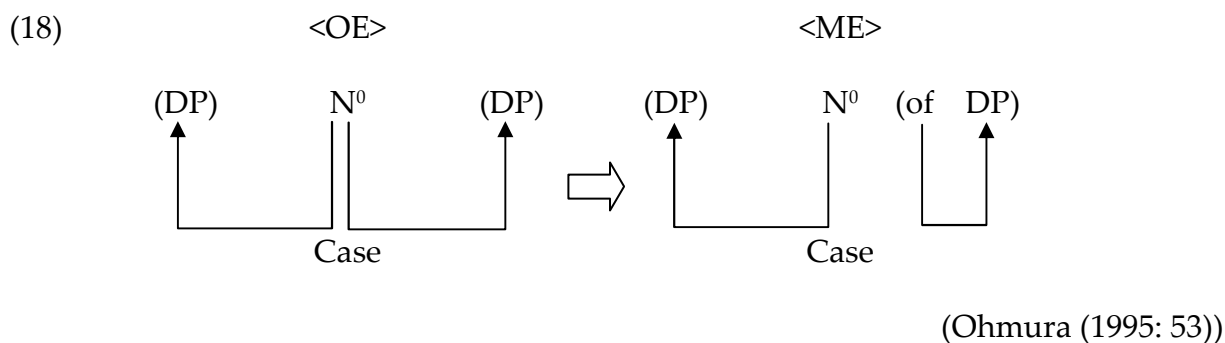
Citing Fires' (1968) investigation summarized in Table 1, Ohmura argues that the change from postnominal genitives to *of*-genitives completed by the middle of thirteenth century.

**Table 1**

	c. 900	c. 1000	c. 1100	c. 1200	c. 1250
prenominal	52.4 %	69.1 %	77.4 %	87.4%	99.1 %
postnominal	47.6 %	30.9 %	22.6%	12.6 %	0.9 %

(Fries 1968: 274)

In summary, Ohmura concludes that the head N once had both leftward and rightward Case assignment ability in OE, but the latter was lost in early ME. At the almost same time, the prepositional *of* was introduced which in turn began to assign structural Case to genitive noun phrases, as illustrated in (16).



#### 4.2.3. Problems with the Previous Studies

In previous sections, we have just reviewed two previous studies, Allen (2008) and Ohmura (1995), both of which conclude that postnominal genitives was lost in early ME. In order to confirm their conclusion, I independently investigated the distribution of postnominal genitives in OE and ME by using YCOE and PPCME2, and obtained the result summarized in Table 2.

<b>Table 1</b>	O1 (~850)	O2 (~950)	O3 (~1050)	O4 (~1150)	Total
N-Gen	20	5422	2256	7	7705
	(28.2%)	(35.4%)	(15.1%)	(10%)	(25.4%)
Gen-N	51	9892	12666	63	22672
	(71.8%)	(64.6%)	(84.9%)	(90%)	(74.6%)
Total	71	15314	14922	70	30377

In Table 2, prenominal genitives are dominant over postnominal ones throughout all the periods. Although the ratio of postnominal genitives slightly increased in the period O2, it shows continual decrease in O3 and O4. When it comes to the ME period, no postnominal genitives are attested in PPCME2. Based on the result here, it would be plausible to conclude that the frequency of postnominal genitives was

extremely low in the twelfth century, which is consistent with the conclusions of Allen (2008) and Ohmura (1995).

However, Allen (2008) and Ohmura (1995) do not provide a syntactic analysis of postnominal genitives in OE and their final loss. Allen only suggests the relation between the loss of postnominal genitives on the one hand and the leveling of inflections and the rise of *of*-genitives on the other without giving it theoretical accounts. As for the genitive Case marking, she only says that ‘postnominal genitives received their Case from their structural position as NomP,’ which is not sufficient. Although Ohmura accounts for the genitive Case assignment and the loss of postnominal genitives in terms of the loss of the rightward Case assignment ability of N, no syntactic account of the change is provided. In the sections below, it will be shown that the loss of postnominal genitives is related to the development of *-’s* in the history of English; when inflections were leveled in early ME, the syntactic status of the genitive inflection *-(e)s/-’s* changed into a D element, which prevented head movement within the double DP structure of postnominal genitives, causing it to collapse.

#### **4.3. The Development of *-’s* and the Loss of Postnominal Genitives**

In this section, we will discuss the development of *-’s* in the history of English and its relation to the loss of postnominal genitives. Before discussing them, some key assumptions are introduced in section 4.3.1, which play an important role in explaining the change of the structure of noun phrases. On the basis of these assumptions, the structure and derivation of prenominal genitives in early English is accounted for in section 4.3.2. Finally, section 4.3.3 puts forth an analysis of the loss of postnominal genitives in the light of the development of *-’s*.

### 4.3.1. Assumptions

This section introduces some assumptions proposed by Chomsky (2000, 2001, etc.). First, we presuppose the Agree operation, which holds between two elements,  $\alpha$  and  $\beta$ . This operation yields feature valuation under the structural probe-goal relation illustrated in (19) and (20).

(19) Probe  $>$  Goal (' $>$ ' means a c-command relation.)

(20) a. Matching is feature identity.

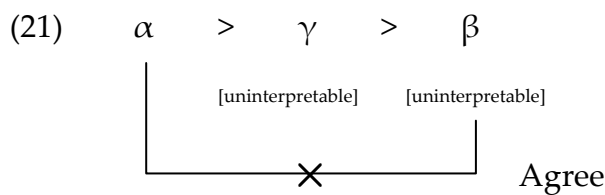
b. Domain(P) is the sister of Probe.

c. Locality reduces to "closest c-command." (Chomsky (2000: 122))

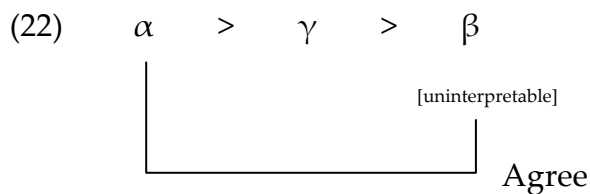
According to (20), the domain of a probe is its c-command domain, and a matching feature of a goal is closest to the probe if there is not intervening goal matching the probe in the relevant domain. Given the stage where  $\alpha$  possesses unvalued  $\phi$ -features, which activate  $\alpha$  as a probe, it searches a goal  $\beta$  with matching interpretable  $\phi$ -features and an unvalued Case feature. Since the unvalued Case feature on the goal  $\beta$  makes it active,  $\alpha$  can successfully find the goal  $\beta$  and they enter into an Agree relation. As a consequence,  $\alpha$  receives the values of interpretable  $\phi$ -features of  $\beta$  and assigns a Case value to  $\beta$ , with concomitant deletion of the  $\phi$ -features of  $\alpha$  and the Case feature of  $\beta$ . Here, we also assume that when a probe agrees with a goal in its local domain, the unvalued Case feature on the goal is determined according to the type of the probe; for example, if the probe is a finite T, the unvalued Case feature on DP will receive the nominative Case. Note that this assumption is valid for the structural Case assignment, but not for the inherent Case

assignment.

As stated in (20c), the Agree operation is always subject to locality constraint. Thus, in configurations like (21) where a probe  $\alpha$  c-commands both goals,  $\beta$  and  $\gamma$ , and  $\gamma$  c-commands  $\beta$ ,  $\alpha$  cannot enter into an Agree relation with  $\beta$  over  $\gamma$ . Alternatively,  $\alpha$  must establish an Agree relation with  $\gamma$ .<sup>4</sup>



However, if  $\gamma$  is inactive or replaced with an element that does not bear an uninterpretable features,  $\alpha$  can establish an Agree relation with  $\beta$  over  $\gamma$ , as shown in (22).



In (22), the Agree relation between  $\alpha$  and  $\beta$  does not violate locality since  $\gamma$  with no uninterpretable feature is not active for an Agree relation.

Here, I continue to adopt the DP Hypothesis proposed by Abney (1987) as discussed in chapters 2 and 3. As for the Case assignment in the OE period, I follow Omura's (1995) assumption; the genitive Case was inherently assigned by the head N in accordance with the uniformity condition in (13). Again, the licensing condition in (23), which is proposed in chapter 2, is significant for the discussions below.

- (23) Definite noun phrases are licensed iff the [+definite] feature of D enters into a checking relation with its matching element(s) in a Spec-head and/or a head-head configuration.

The [+definite] feature on the head of DP needs to be checked by definite elements such as determiners and determinative genitive noun phrases; otherwise the derivation will crash.

#### 4.3.2. No Defective Intervention Constraints in Early English

Chomsky (2000) claims that under the circumstance in (22) an Agree operation between a probe and a goal can be blocked by what he refers to as defective intervention constraints:

- (24) Defective Intervention Constraints
- a. both  $\beta$  and  $\gamma$  match the probe  $\alpha$  in  $\alpha > \gamma > \beta$   
(‘>’ means a c-command relation.)
  - b.  $\gamma$  is inactive
  - c.  $\gamma$  blocks the Agree relation between  $\alpha$  and  $\beta$  (c.f. Chomsky (2000: 123))

The claim in (24) is based on the examples in (25) which are the translations of Icelandic.

- (25) a. me(dat) thought (pl) [ $_{\alpha}$   $t_{me}$  [they(pl,nom) be industrious]]  
b. \*me(dat) seem(pl) [ $_{\alpha}$   $t_{me}$  [John(dat) to like horses(pl,nom)]]  
c. me(dat) seem(sg) [ $_{\alpha}$   $t_{me}$  [John(dat) to like horses(pl,nom)]]

The matrix verb *thought* agrees with the embedded nominative *they* in (25a), but not in (25b), where the  $\phi$ -features on the quirky subject *John* which are inactive since its unvalued Case feature is already valued in  $\alpha$  block the Agree relation between the matrix verb *seem* and the nominative argument *horses*. In light of defective intervention constraints, the plural nominative phrase does not trigger plural agreement on the finite verb, which must appear with the default value singular as shown in (25c).

However, Broekhuis (2008) argues that inactive goals never block probe-goal relations; instead of (24), he proposes the definition of closeness as illustrated in (26) and (27).

(26)  $\gamma$  is closer to probe  $\alpha$  than  $\beta$  in  $\alpha > \gamma > \beta$ , iff;

- a.  $\gamma$  c-commands  $\beta$ ,
- b.  $\gamma$  and  $\beta$  are not in the same minimal domain, and
- c.  $\gamma$  is active.

(27) A goal  $\gamma$  is active, iff;

- a.  $\gamma$  is the head of a A-chain, and
- b.  $\gamma$  has an unvalued formal feature.

(Broekhuis (2008: 141))

Chomsky denies (26c) by referring to Icelandic examples like (25), where a quirky subject blocks agreement between a finite verb and a nominative subject. According to Broekhuis, this blocking effect can be attributed to a typical property of the quirky subject construction and does not occur in comparable examples in Dutch and



German. In illustration of the property of quirky subjects, consider the following example.

- (28) a. *Mér*      finnst/finnast      tölvurnar      ljótar.  
           me(dat) find(sg)/find(pl) the computers(nom/pl) ugly  
           ‘I consider computers ugly.’
- b. *Mér*      virðist/virðast      hestarnir      vera      seinir.  
           me(dat) seem(sg)/seem(pl) the horses(nom/pl) be      slow  
           ‘It seems to me that the horses are slow.’ (Broekhuis (2008: 139))

When the dative subject *Mér* is moved to clause-initial position, the intervention effect disappeared. Broekhuis argues that the fronting of quirky subjects and the disappearance of the defective intervention effect can be accounted for by assuming in (29).

- (29) a. Quirky Case is ( $\theta$ -related) inherent Case with an additional structural Case feature.
- b. A-movement traces are “invisible” to the probe-associate relation.
- (Broekhuis (2008: 139))

The claim in (29) is that quirky subjects have an additional structural Case feature, which turns them into an active goal for unvalued features on T and they can move into Spec-T. In (28), the dative arguments are active and the probes on T can find them as a goal. Note that the trace of A-movement is not visible for the probe-goal relation between the finite verb and the nominative subject and does not block their

relation. The dative argument in (25b), on the other hand, is active for the probe-goal relation between *seem* and *horses* since it has an unvalued additional structural Case feature; thus, the blocking effect emerges. A quirky subject asymmetrically c-commands a nominative subject and it therefore is a closer potential goal for a probe on T, as illustrated and (30).

- (30) það finnst/\*finnast einhverjum stúdent tölvurnar  
 there find(sg)/find(pl) some student(dative/sg) the computers(nom/sg)  
 ljótar.  
 ugly  
 ‘Some student considers the computers ugly.’ (Broekhuis (2008: 138))

On the basis of the discussion above, it is expected that defective intervention effects are not observed in languages which do not have quirky subjects such as Dutch and German. Indeed, the blocking effect of the dative noun is not observed in the Dutch examples (30).

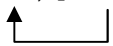

- (30) a. Daarom leken neimand die computers snel genoeg.  
 Therefore seemed(pl) nobody(dat) those computers fast enough  
 ‘Therefore those computers seemed fast enough to nobody.’  
 a’. Daarom leken die computer niemand snel genoeg.  
 b. Soms lijken mij die jongens te veel te drinken  
 sometimes seem(pl) me(dat) those boys too much to drink  
 ‘Sometimes those boys seem to me to drink too much.’  
 b’. soms lijken die jongens mij te veel te drinken

The examples in (30) are comparable to the Icelandic examples in (25), and the datives are not quirky subjects. By the time that the finite verb is merged, the unvalued Case feature on the dative arguments is already valued, and they do not have an additional structural Case feature; consequently, they are inactive so as not to block probe-goal relations between a finite verbs and a nominal subject. If Chomsky's assumption (24) is correct, we wrongly predict that the finite verbs cannot agree with the nominative arguments ((30a) and (30b)), and that the movement of the nominative arguments across the dative arguments is blocked ((30a') and (30b')).

Adopting the definition of closeness (26) and (27) proposed by Broekhuis, I assume that inactive arguments do not block probe-goal relations.

#### 4.3.3. The Structure and Derivation of Prenominal Genitives in Early English

Before discussing the loss of postnominal genitives, let us consider the structure of the prenominal genitives and its derivation in early English. In chapter 3, we have discussed prenominal genitives in early English, giving the focus on the development of *-s* and the genitive Case assignment. I have proposed the structural and derivational change of prenominal genitives in the history of English as follows.

- (31) a.  $[_{DP} (DP) [_{D'} D [_{NP} (DP) [_{N'} N ]]]]$   
  
 Inherent Case Assignment
- b.  $[_{DP} DP_i [_{D'} -(e)s/-'s [_{NP} t_i [_{N'} N ]]]]$   
  
 Structural Case Assignment

(31a) is the structure in OE, where the head N assigns inherent genitive Case under  $\theta$ -role assignment in accordance with the uniformity condition (13). Then, the genitive inflection is realized on each element of the noun phrases base-generated in Spec-NP. (31b), on the other hand, is the structure from early ME to PE onwards, where the genitive Case assignment has changed from inherent to structural, aslong with the syntactic status of  $-(e)s/-'s$ :  $-(e)s/-'s$  became a Case assigner placed in the head of DP and phonologically attached to the whole noun phrase in Spec-DP. Section 4.3.2.1 illustrates the derivations of the structure including one genitive noun phrase, and section 4.3.2.2 deals with the derivation of the group genitive.

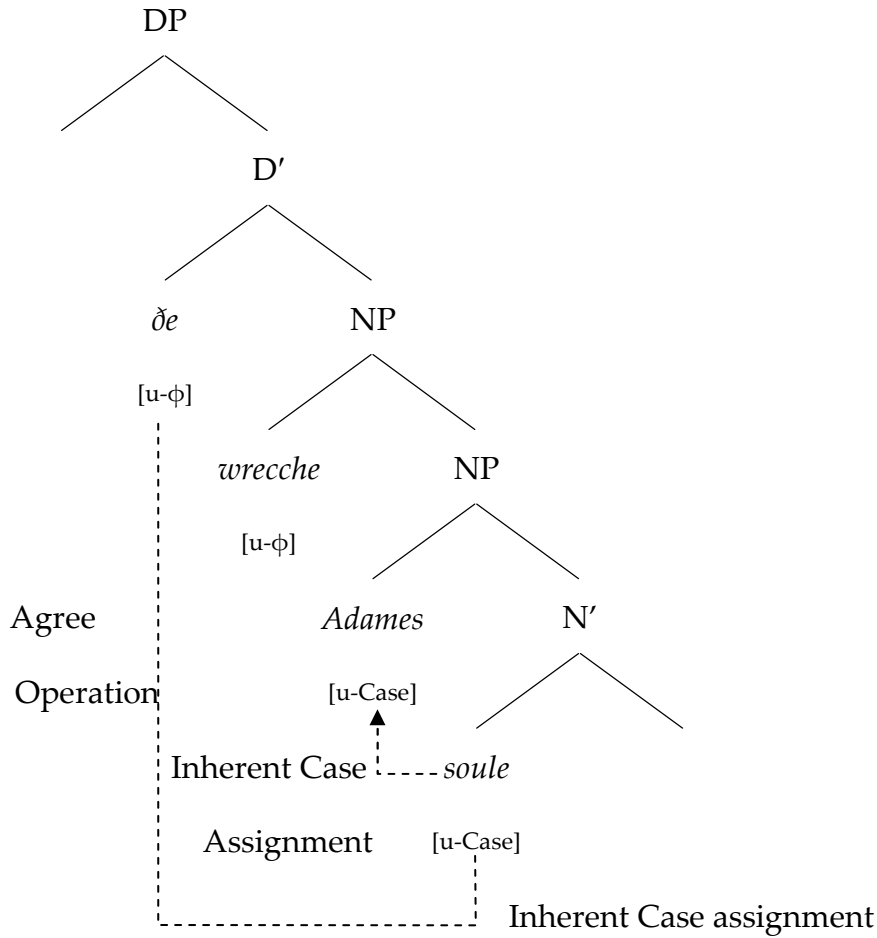
#### 4.3.3.1. Prenominal Genitives: Det-(Adj)-Gen-N and Gen-(Adj)-N

Let us consider the derivation of prenominal genitives in two word order patterns which we discussed in chapter 3, Det-(Adj)-Gen-N and Gen-(Adj)-N, as shown in (32).

- (32) a. *ðe wrecche Adames soule*  
           the wretch Adam's soul (CMVICES1, 115.1401: m1)
- b. *Moises longe trauaile*  
           Moise's long travel (CMCLOUD, 127.739: m3)

The noun phrase (32a), which exhibits the word order pattern Det-(Adj)-Gen-N, would have the structure shown in (33).

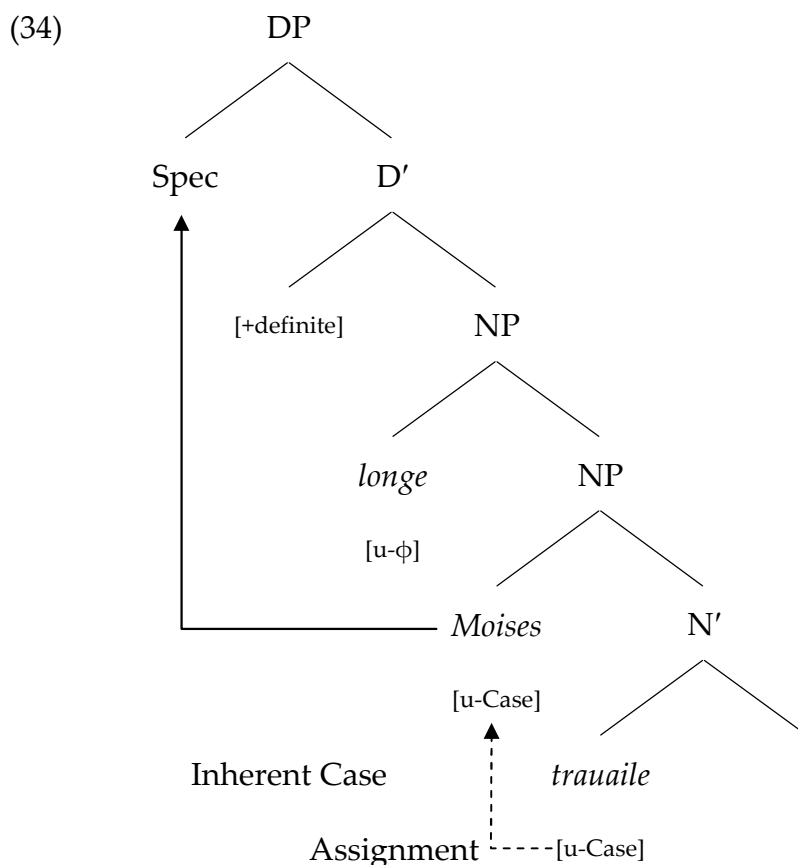
(33)



In this structure, the genitive noun phrase *Adames* is base-generated in the Spec-NP, and the demonstrative *ðe* and the noun *soule* are base-generated in the head of DP and NP, respectively. The adjective *wrecche* is attached to NP.<sup>5</sup> The demonstrative and the adjective have uninterpretable  $\phi$ -features since they inflect for person and number through the agreement with the head noun. The nouns *Adames* and *soule*, on the other hand, have interpretable  $\phi$ -features and an unvalued Case feature since they inflect for Case. These elements are activated by either uninterpretable  $\phi$ -features or an unvalued Case feature so that they all can enter into an Agree operation. The derivation of this structure goes as follows. First, the head noun *soule* gives the genitive Case inherently to the noun phrase *Adames* under  $\theta$ -role assignment in accordance with the uniformity condition (13). Once the unvalued

Case feature is valued as genitive and deleted, it becomes invisible in the syntax: the valued feature is inactive and cannot enter into further operations such as Agree. Then, the uninterpretable  $\phi$ -features on the demonstrative *ðe* serve as probe, which searches for a goal in its c-command domain, and finds out the noun *soule* as the matching goal. Since *Adames* is inactive for a further syntactic operation here, *ðe* can establish an Agree relation with *soule* across over *Adames*. As a consequence, the uninterpretable features on *ðe* are valued and deleted. The unvalued Case feature on the noun *soule* remains unvalued for further operation: it might be valued by other elements outside the noun phrase, e.g. by T, which gives the nominative Case to the entire noun phrases. Notice that the [+definite] feature on D is checked by the demonstrative *ðe* in a head-head relation.

Next, let's turn to the derivation of (32b), Gen-(Adj)-N, which has the structure illustrated in (34).



In the structure, the genitive noun phrase *Moises* is base-generated in the Spec-NP, the noun *trauaile* is base-generated in the head of and NP, and the adjective *longe* is attached to NP. The adjective has uninterpretable  $\phi$ -features, and the nouns *Moises* and *trauaile* have interpretable  $\phi$ -features and an unvalued Case feature. These elements are active by virtue of their uninterpretable features, and thus they all can enter into an Agree operation. The derivation here proceeds as follows. First, the head noun *trauaile* gives the genitive Case inherently to the noun phrase *Moises* under  $\theta$ -role assignment; consequently, the Case feature of *Moises* is deleted, which renders it inactive. The uninterpretable  $\phi$ -features on the adjective *longe* as a probe searches for an active goal which can value and delete its person/number feature in its c-command domain. Again, since *Moises* is already inactive for an Agree operation, the uninterpretable features of the adjective and the interpretable features on the noun *trauaile* can enter into an Agree relation. As a consequence, the uninterpretable features on *longe* are valued and deleted. The Case feature on the noun *trauaile* remains unvalued for further operation. In this case, however, the [+definite] feature on D is not checked yet by a matching element. Thus, the genitive noun phrase *Moises*, which is the only candidate here, must move to Spec-DP to license it by a Spec-head relation. Assuming the above Agree operation, Case marking, feature deletion and DP licensing, we obtain the resulting structure as illustrated in (35).

(35)

The diagram shows a syntax tree for the sentence "Moises a vu une longue traucaille". The root node is DP, which branches into *Moises*<sub>i</sub> and D'. D' branches into the feature ~~[u-Case]~~ and NP. This NP branches into the feature  $\sqrt{[+definite]}$  and another NP. The second NP branches into the adjective *longe* and a third NP. This third NP branches into the feature ~~[u- $\phi$ ]~~ and N'. N' branches into the trace *t<sub>i</sub>* and the noun *traucaille*. The feature ~~[u-Case]~~ is shown at the bottom of the tree, associated with the noun *traucaille*.

#### 4.3.3.2. The Group Genitive

In chapter 3, we have also discussed the development of genitive noun phrases in light of the development of *-s* from an inflectional ending to a D element as a structural Case assigner, as illustrated in (31). Putting the focus on *-s*, let us consider the structural change of the group genitive in the history of English.

As we discussed in the previous chapter, when genitive noun phrases consist of more than one noun in OE, each noun has the genitive inflection as shown in (36).

[illegible]

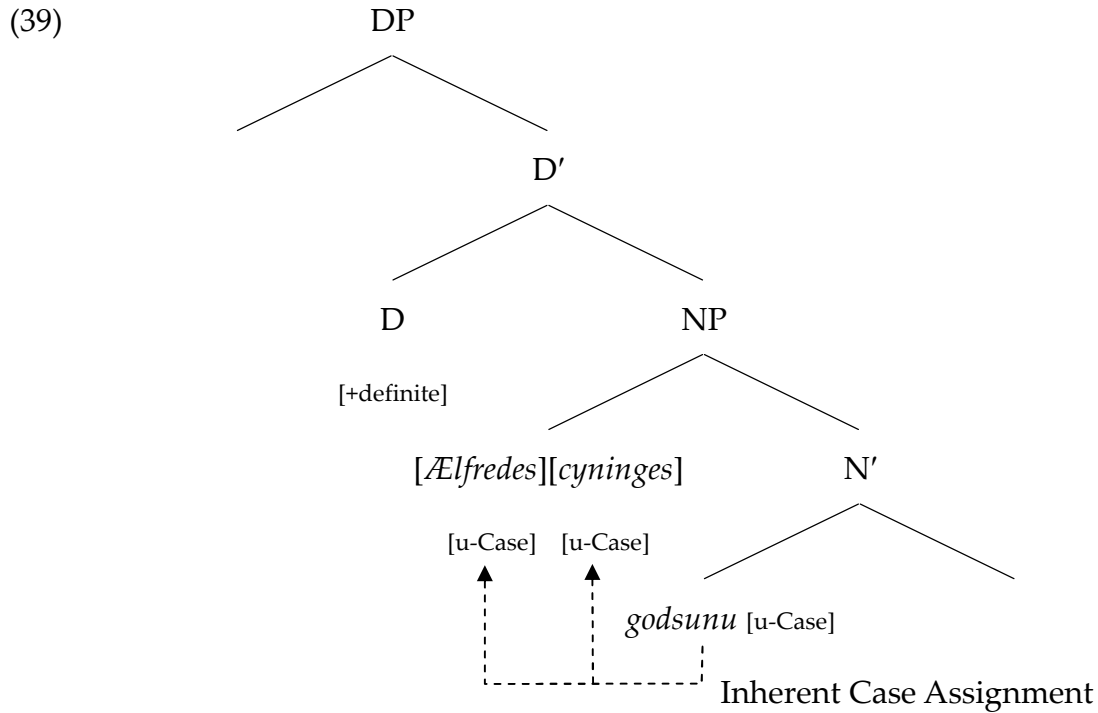
In late OE, when inflections started to be leveled, only the second noun came to have



(37)      Davið        kinges        kinn    (*Orm*)  
             ‘king David’s kin’    (Nakao (1972: 221))

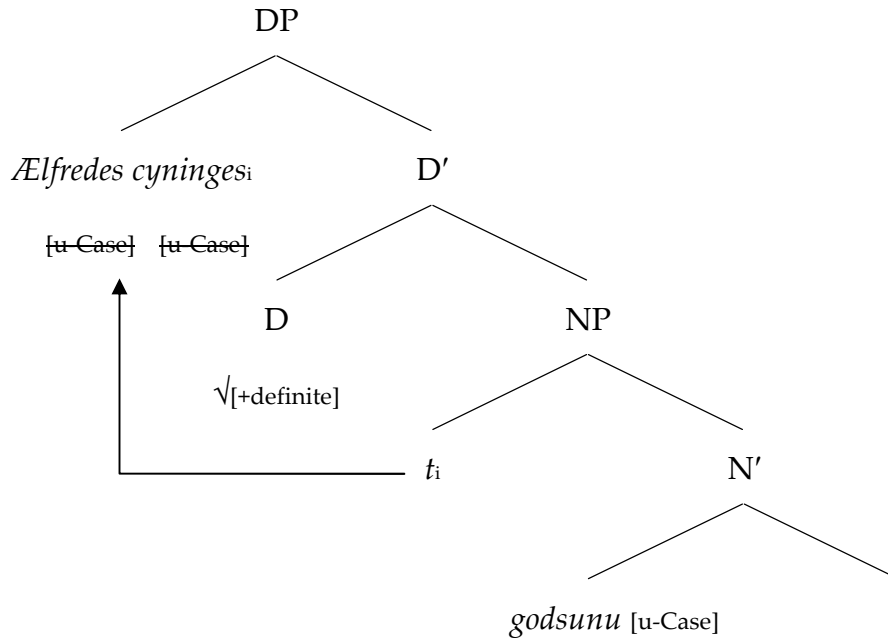
(38) a. my lorde of Bedfordes mynde therin (1553 Q. Elizabeth I)  
           ‘my lord of Bedford’s mind therein’  
       b. the King of Perseas crown (Marlowe, *Tamb.* 651)  
           ‘the king of Persia’s crown’ (Araki and Ukaji (1984: 284))

156



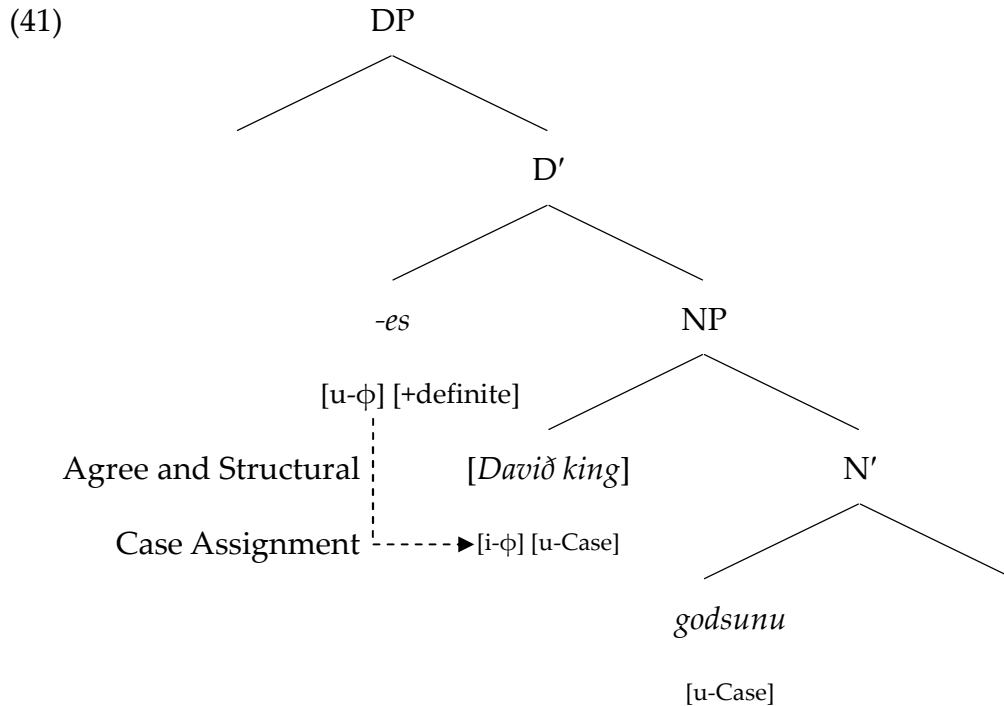
In (39), the genitive noun phrase *Ælfredes kinges* and the noun *godsunu* are base-generated in Spec-NP and the head N, respectively. It seems reasonable to suppose that *Ælfredes* and *kinges* have distinct unvalued Case features, because in OE, the genitive inflection appears in each noun in the group genitive, as observed in (36). Thus, the head noun *godsunu* assigns the inherent genitive Case to each noun in Spec-NP, and they independently show the genitive inflection, with the resultant deletion of the uninterpretable Case features. Since the [+definite] feature on D is yet to be checked by a matching element either by a Spec-head or a head-head configuration, the genitive noun *Ælfredes cyninges* must move to Spec-DP to license it. As a result, we obtain the following structure.

(40)



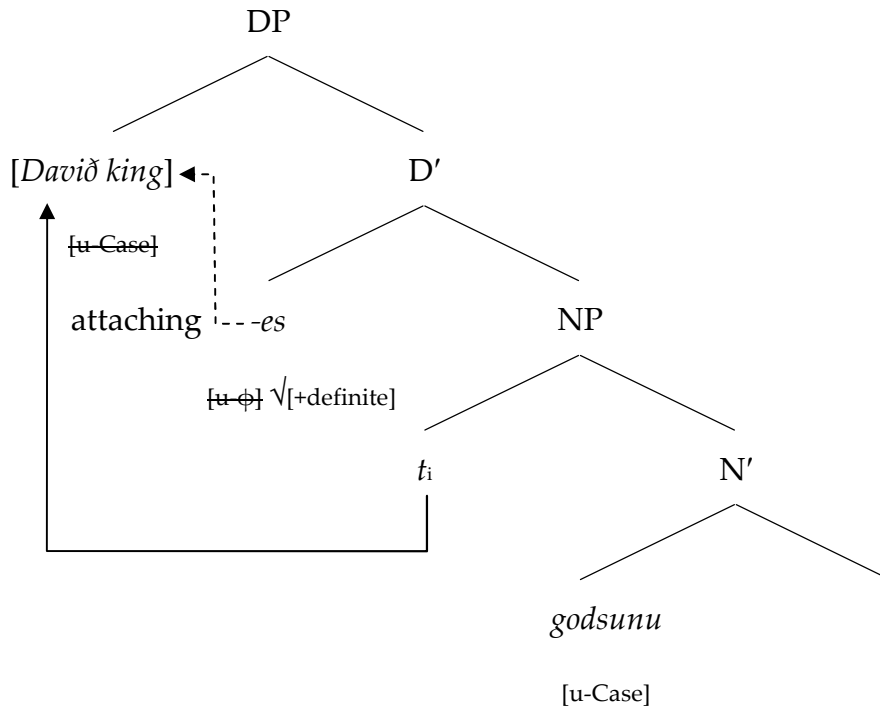
Again, the uninterpretable Case feature on *godsunu* remains for further operations.

As we concluded in chapter 3, the loss of the word order pattern Det-(Adj)-Gen-N, which we discussed in the previous section, is attributed to the development of *-(e)s/-'s* from the genitive inflection to a D element. It has also been argued that the origin of *-'s* is the genitive inflection *-(e)s* in OE and ME, which changed into a structural Case assigner in the head D, taking over the task of the head N as an inherent Case assigner. Therefore, determiners could no longer appear in the head D in noun phrases with genitives, because the position is already occupied by *-(e)s/-'s*. Based on these, group genitives in ME like (37) would have the structure in (41).



We assume that the genitive *-es*, which is base-generated in the head D, serves as a probe and looks for a goal to value its  $\phi$ -features. The closest goal in the structure is the noun phrase *Davið king* in Spec-NP, which has unvalued Case feature that activates it. What is different from the group genitive in OE is that *Davið* and *king* behave as a unit: in OE, prenominal nouns had unvalued Case features independently, but in ME, prenominal nouns has a single unvalued Case feature as a whole, as illustrated in (41).<sup>6</sup> Once a probe-goal relation is established in the structure, the uninterpretable  $\phi$ -features on *-es* are valued by the interpretable  $\phi$ -features on *Davið king*. At the same time, the Case feature on *Davið king* is also valued and deleted via the Agree relation with the probe. Although the D element *-es* checks the [+definite] feature on the head D in a head-head configuration, the genitive *Davið king* must still move to Spec-DP, since *-es* is a clitic like element as discussed in chapter 3, which requires a host in its specifier position. Given all this, the structure in (42) is obtained.

(42)



Having presented the structural change of genitive noun phrases, we are now ready to discuss how the development of *-(e)s/-'s* was concerned with the loss of postnominal genitives in the following section.

#### 4.3.4. Postnominal Genitives: Their Structure, Derivation and Loss

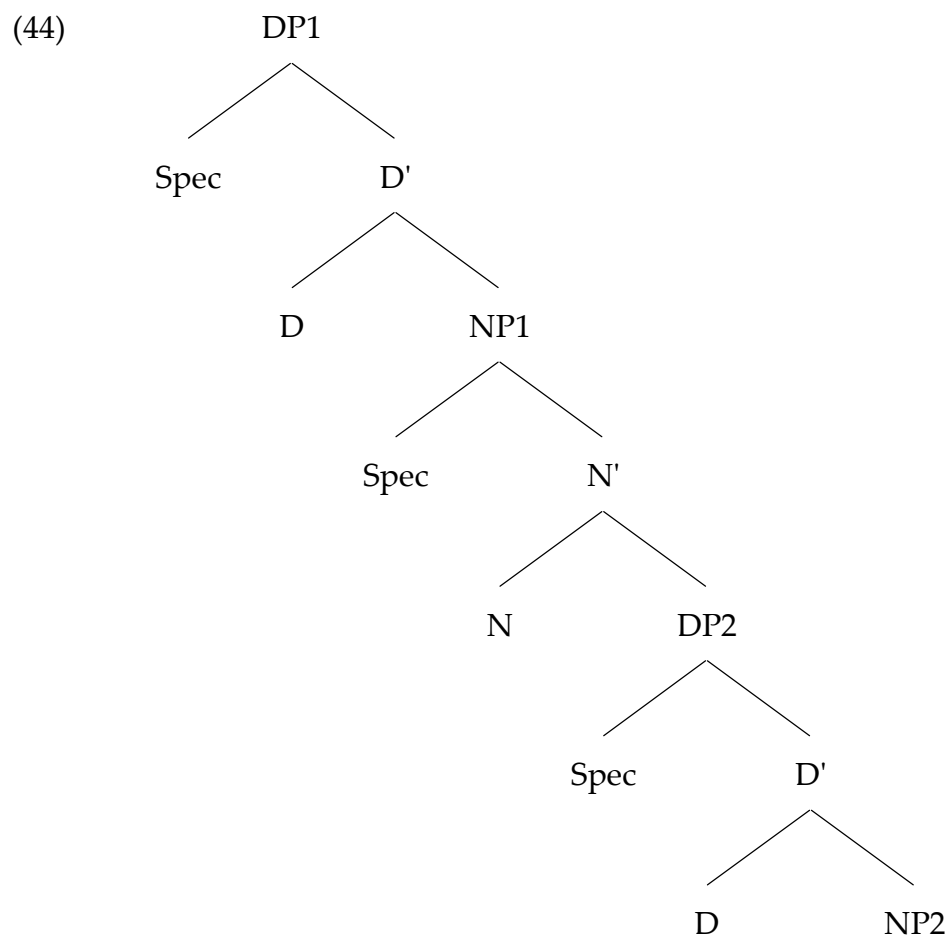
With the assumptions above in mind, let us consider the structure and derivation of postnominal genitives exemplified in (43).

- (43) Heo understod ealle þa word þære ænglen ...  
She understood all the words the:GEN.PL angel:GEN.PL  
'She understood all the words of the angels...'

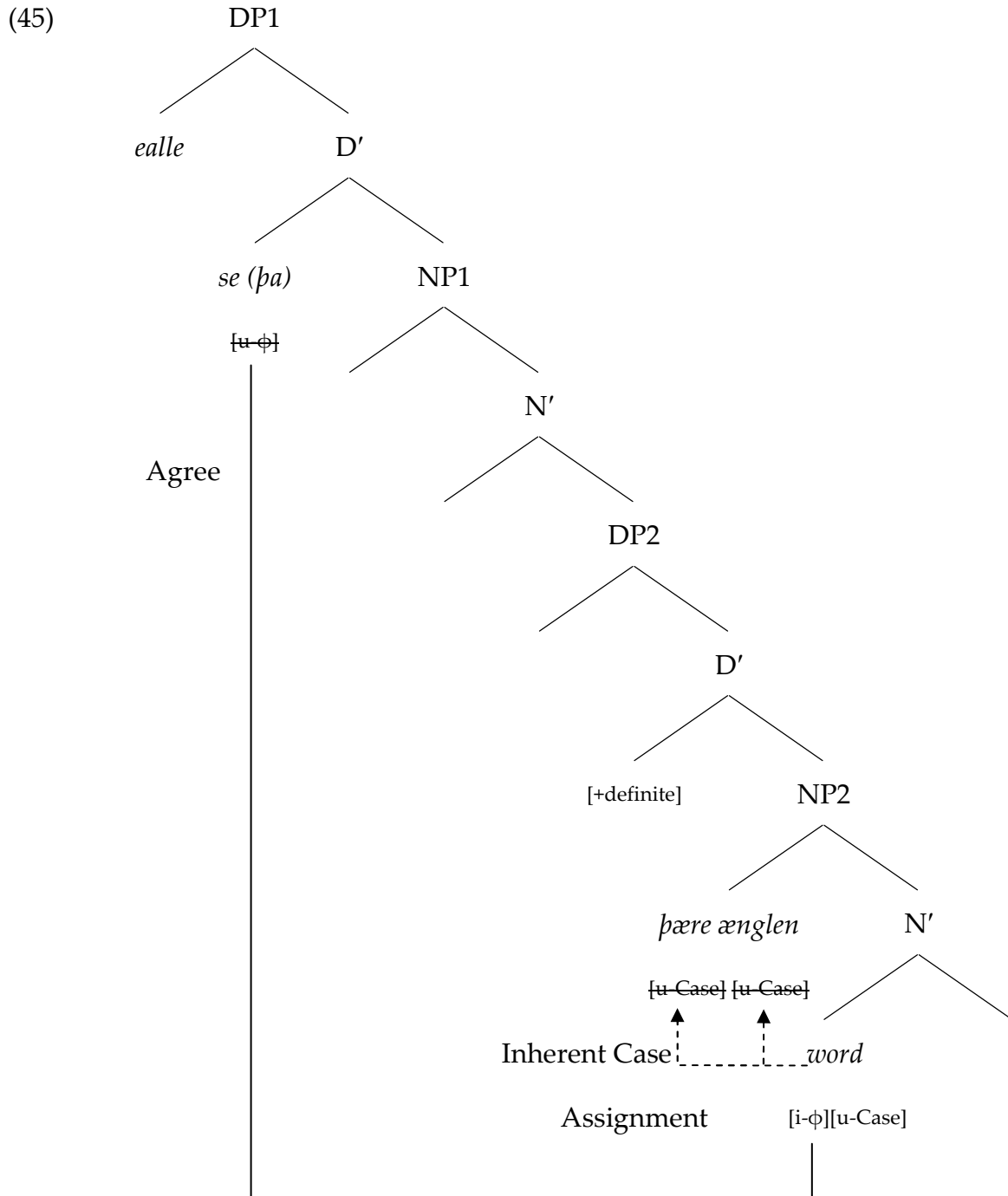
(CMKENTHO,138.107)(Festis189)

(Allen (2008: 160))

I assume that the structure of postnominal genitives has a double DP structure where the head D is taking NP as its complement, whose head N in turn takes another DP, as illustrated in (44).<sup>7</sup>



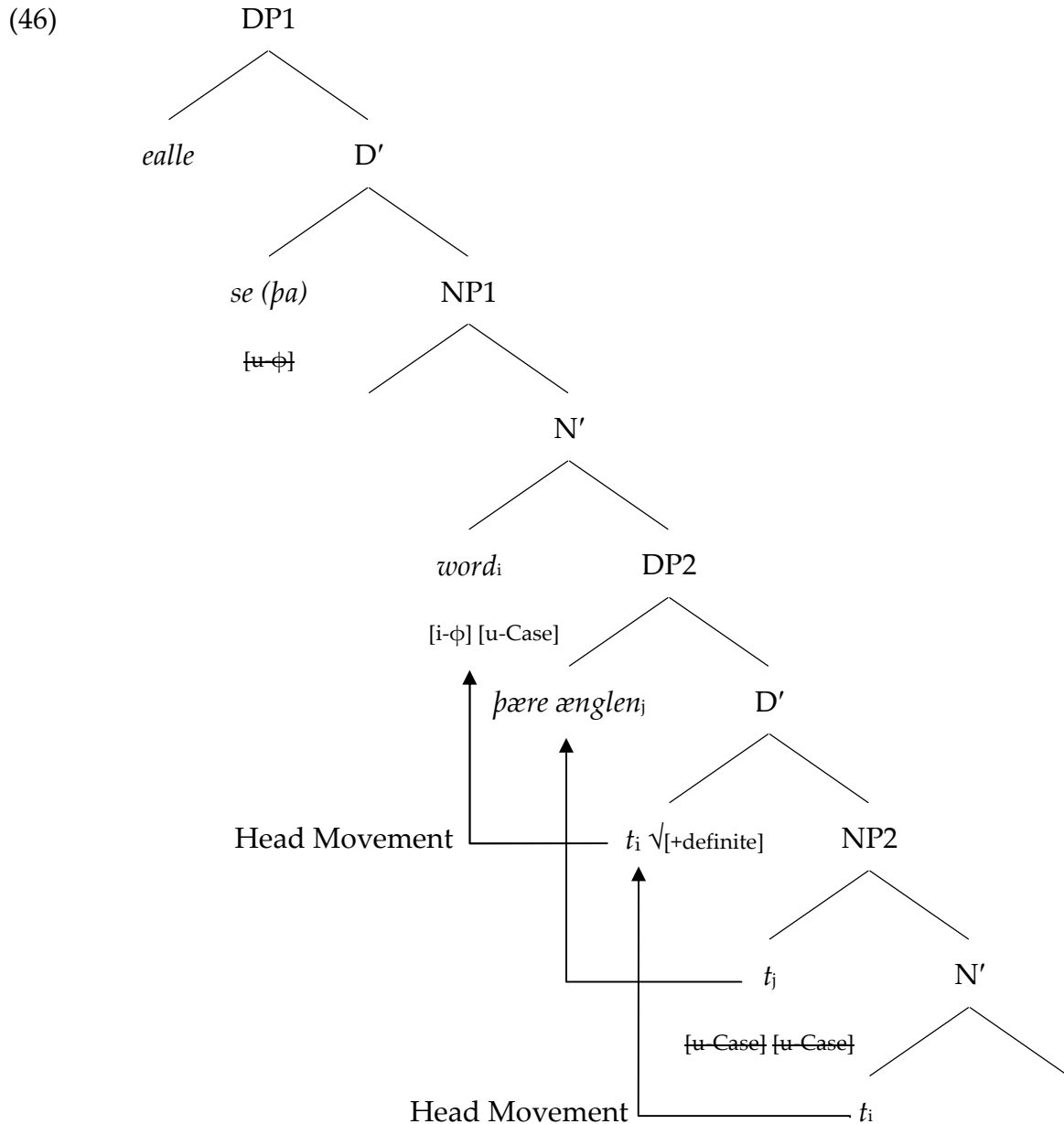
Adopting this structure, the derivation of postnominal genitives will be as follows.



The demonstrative *se* is base-generated in the head of DP1, and the genitive noun phrase *þære ænglen* occupies the specifier position of NP2.<sup>8</sup> Again, there exist uninterpretable Case features on each noun, as illustrated in (45). Given the uniformity condition in (13), the head noun *word* assigns the inherent genitive Case to *þære ænglen* under  $\theta$ -role assignment, and the Case features on the nouns are

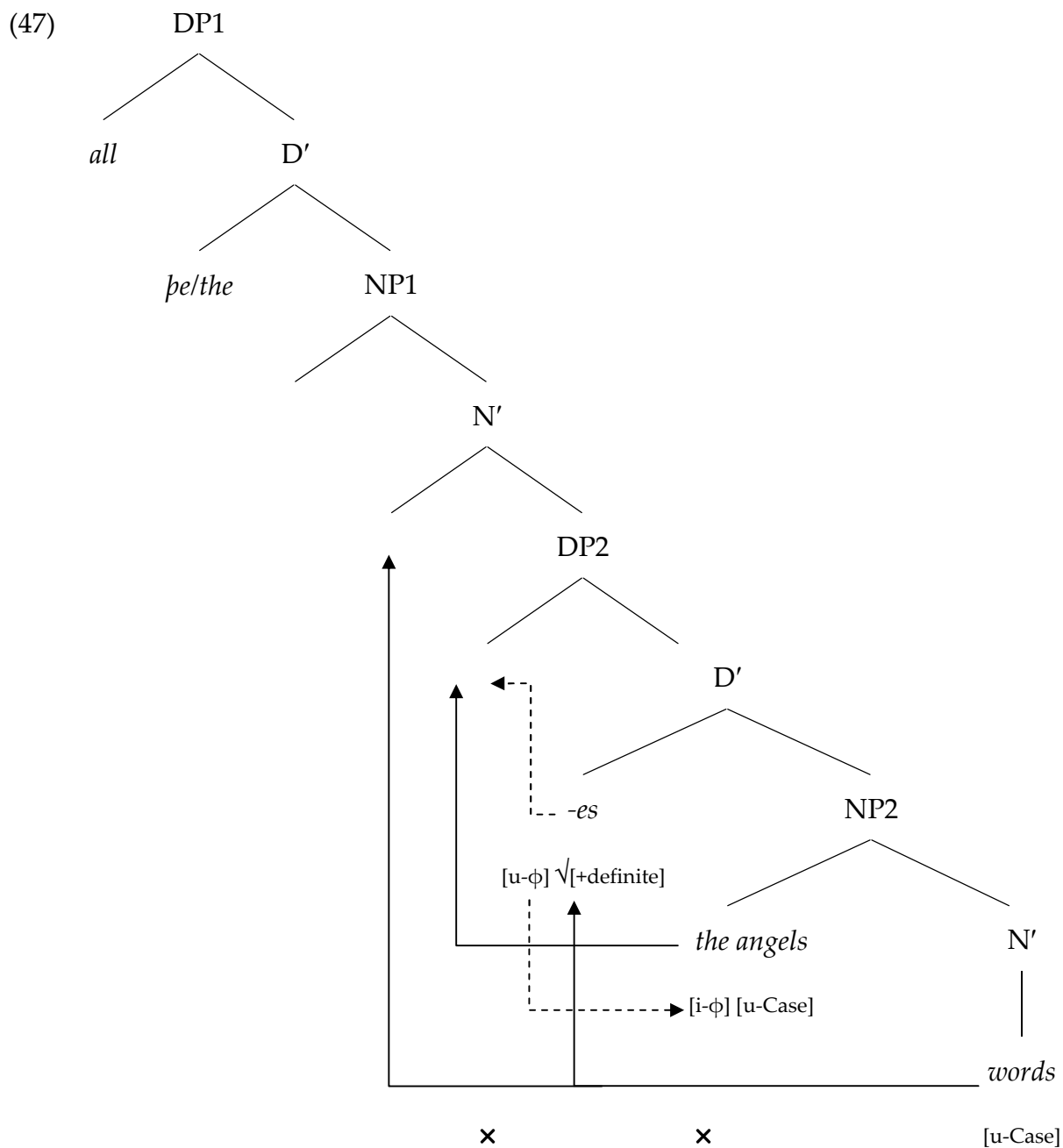
valued and deleted, which renders the noun phrase inactive. The uninterpretable  $\phi$ -features on the demonstrative *se* in the head of DP1 searches its c-commanding area for a matching goal, and enters into an Agree relation with the noun *word*, whose interpretable  $\phi$ -features determines the values of corresponding  $\phi$ -features on *se*. On that occasion, since the genitive noun phrase is inactive, it does not disturb the Agree relation.<sup>9</sup> DP2 has to be licensed by the matching definite element. In this case, there is no definite element in the domain of DP2, so that the genitive *þære ænglen* in Spec-NP2 moves to Spec-DP2 to license it via a Spec-head configuration. The [+definite] feature on the head of DP1, on the other hand, is already checked by the demonstrative *se* via a head-head configuration. Because the demonstrative *se* behaves as an article here, it needs a host in much the same way that the (in)definite article does. Thus, the noun *word* takes the head movement to the head position of NP1, where it can be a host for the demonstrative. The resulting structure is as follows.<sup>10</sup>





The head movement here is subject to the Head Movement Constraint (henceforth, HMC) proposed by Travis (1984); movement between one head position and another is only possible between the head of a given structure and the head of its complement. Thus, the head noun *word* has to go through the intervening head position of DP2.

Finally, let us consider the loss of postnominal genitives in early ME. The structure and derivation of postnominal genitives would be as follows.



In (47), the demonstrative (the definite article) *þe/the*<sup>11</sup> is base-generated in the head position of DP1, and the genitive noun phrase *the angels* and the head noun *words* occupy the specifier and the head positions of NP2, respectively. In early ME, the genitive inflection *-(e)s* changed into a D element, which gives the structural genitive Case to the noun *the angels*. The noun phrase *the angels* moves to the specifier of

DP2 to license it via a Spec-head configuration. The [+definite] feature on the head of DP1, on the other hand, is already checked by *he/the* via a head-head configuration.

The uninterpretable  $\phi$ -features on *-es* serve as a probe and enter into a probe-goal relation with the interpretable  $\phi$ -features on the *angels*. In order to license DP2, the noun phrase *the angels* moves to Spec-NP2, to which *-es* is attached as a clitic. The demonstrative/definite article in the head of DP1 is also a clitic-like element that requires its hosts by virtue of its phonologically independent property. A proper host in (47) is the noun *words* placed in the head of NP2. Thus, it needs to move to the head position of NP1 by head movement. However, the head position of DP2 is already occupied by the genitive inflection *-(e)s*. Thus, the noun *words* is unable to go through this position, which causes the failure of derivation for the violation of HMC. If *words* directly moves to the head of NP1, it is also the violation of the HMC. Neither option will lead successful convergence of the derivation.

#### 4.4. Concluding Remarks

This section discusses the loss of postnominal genitives in the history of English in light of the development of the genitive inflection *-(e)s/-'s*. In OE, the head noun in the double DP structure of postnominal genitives, which is base-generated in the head of NP2, has to move to the head position of NP1 in order to be the host of demonstratives as the definite article. In ME, the requirement for the movement of the head noun ceased to be satisfied because the genitive inflection *-(e)s* came to occupy the head of DP and block head movement. Therefore, the derivation of the double DP structure no longer converged, leading to the loss of postnominal genitives.

## Notes to Chapter 4

1 Allen (2008) uses the term 'Nom(inal)P' instead of NP and DP; she argues that NomP is used when the distinction between DPs and NPs is not at issue.

2 Allen notes that processing complications arise in genitives like (i).

- (i) the son of Pharaoh's daughter

In (i), the possessive marker *'s* is placed at the end of entire NP, leading to the structurally ambiguous, either *Pharaoh* or *the son of Pharaoh*.

3 Allen (2008) suggests that with the increased frequency of *of*-genitives and prenominal genitives, language learners of the late twelfth century failed to learn postnominal genitives. At this point, postnominal genitives became structurally impossible.

4 Hiraiwa (2005) argues that in configurations like (21),  $\alpha$  can enter into an Agree relation with  $\beta$  via Multiple Agree only if it also establishes an Agree relation with  $\gamma$  at the same time. It is noted in this case that the Agree relation between  $\alpha$  and  $\gamma$  does not violate locality, because locality is relativized to derivational simultaneity. See Hiraiwa (2005) for further details.

5 I assume that as well as the other functional elements in (33), the adjective *wrecche* also has an uninterpretable feature, which makes it active, and must enter into an

Agree relation with the head of NP. Note that adjectives enter into an Agree relation earlier than demonstratives and become inactive, the blocking effect would not appear. See discussion in 4.3.2.

6 Alternatively, it might be said that each noun in the group genitive still has an unvalued Case feature at this period; I suspect that this may very well have been the case. However, I argue that sooner or later, a single unvalued Case feature came to be held by a set of nouns in the group genitive, if we take into consideration the examples in (38) and (ii).

- (ii) a. Fred's taste in wallpaper is appalling.  
b. The man in the hall's taste in wallpaper is appalling.  
c. Every man I know's taste in wallpaper is appalling.  
d. That brother-in-law of mine that I was telling you about's taste in wallpaper is appalling.  
e. Even that attractive young man who is trying to flirt with you's taste in wallpaper is appalling. (Anderson (2008: 2))

The elements included in the group genitives in (38) and (ii) are hardly regarded as having unvalued Case features separately. Rather, the genitive noun phrase as a whole has a single feature.

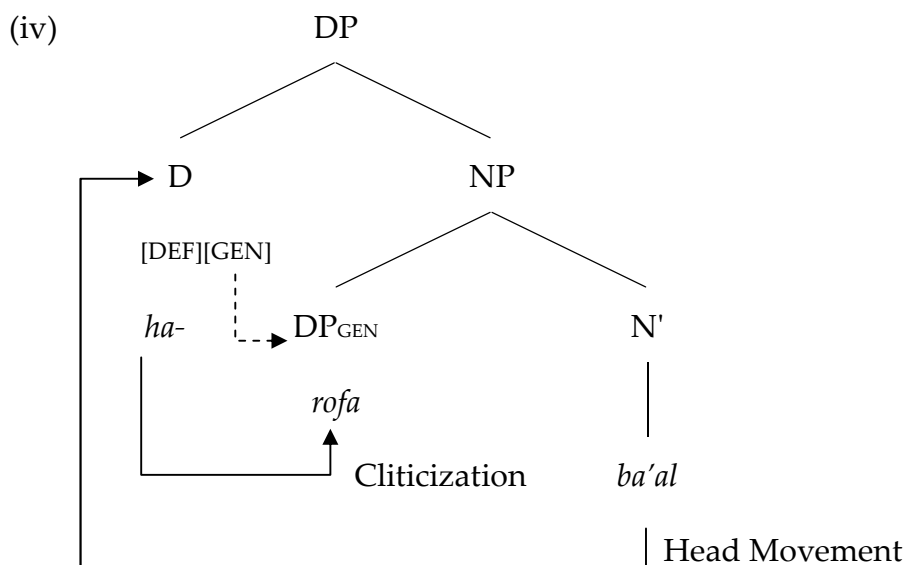
7 This structure would be supported by Ritter's (1988) analysis of two subtypes of construct state noun phrases in Modern Hebrew, *picture* class nouns and nominal derived from transitive verbs. According to her, the term construct state refers to a

type of noun phrase in which the head noun is immediately followed by a genitive noun phrase and it bears some relation to the noun, as illustrated in (iii).

- (iii) a. beyt     ha-    mora  
           house   the-   teacher  
           'the teacher's house'
- b. maxazot   šekspir  
           plays     Shakespear  
           'Shakespeare's plays'
- c. ba'al         ha-    rofa  
           husband   the   doctor  
           'the doctor's husband'

(Ritter (1988: 915))

Ritter assumes that the structure of construct state noun phrases and its derivation is as follows.



(cf. Ritter (1988: 919))

The head D has two morphemes: definiteness [DEF] and an abstract case assigner called [GEN]. The former is realized as the clitic *ha-*, which lowers to attach to the genitive noun phrase *rofa*. It is also assumed that when D has a morpheme [GEN] which assigns the genitive Case to DP in Spec-NP, a head noun, e.g. *ba'al* in example (iv), must move to the head of DP to morphologically support the functional head.

However, the structure and its derivation of construct state genitives are rather different in the case of *picture* type, which is ambiguous about its relation to the head noun in contrast to the construct state genitives in (iii).

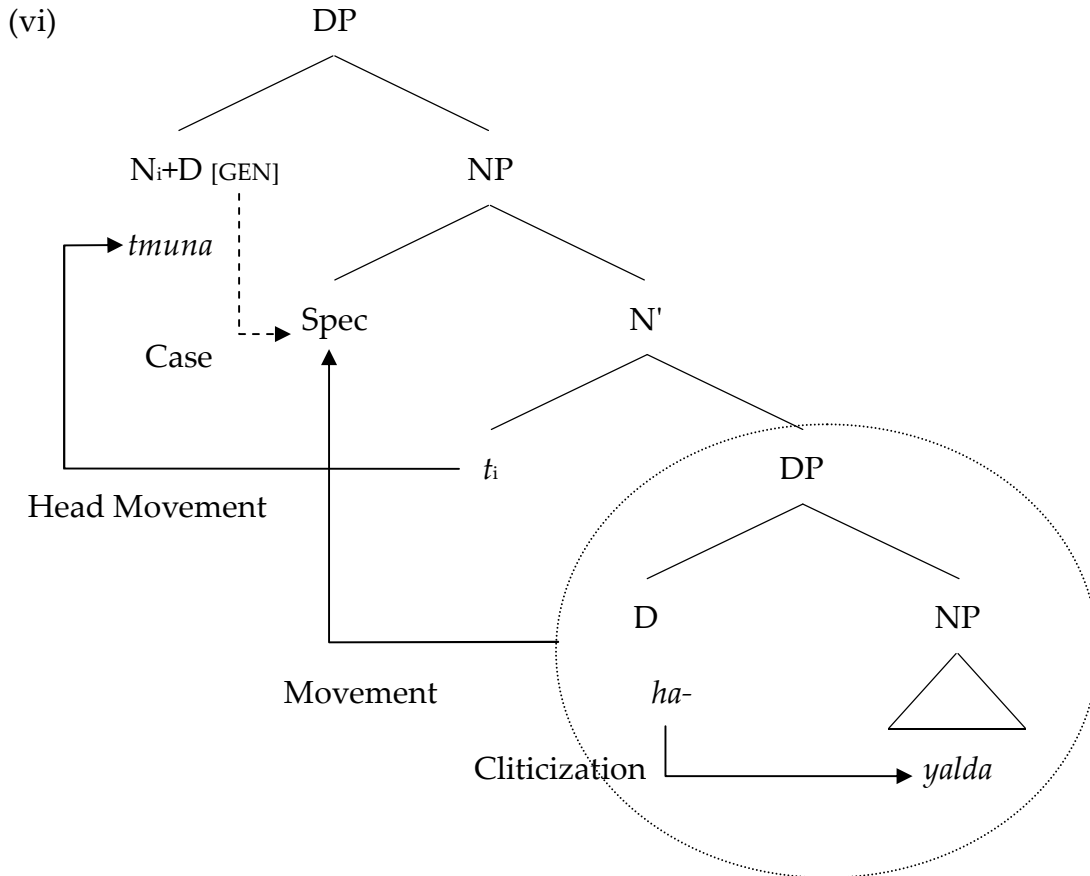
(v)     *tmunat*    *ha-*    *yalda*

         picture    the-    girl

         ‘the girl’s picture’

(Ritter (1988: 923))

It is argued that the genitive *ha-yalda* in (v) may be the possessor, the agent, or crucially the theme of *tmunat*. Assuming that the  $\theta$ -role of theme is assigned to *ha-yalda*, she proposes the structure (vi) for the construct state genitive in (v).



According to Ritter, since *ha-yalda* is the theme of *tmuna*, it is base-generated in the complement of *tmuna*. In that position, *ha-yalda* cannot receive Case, and it moves to Spec-NP where it can be assigned the genitive Case by [GEN]. Then, motivated by this Case assigner which needs to be morphologically supported, the head noun *tmuna* moves to D to derive the surface word order.

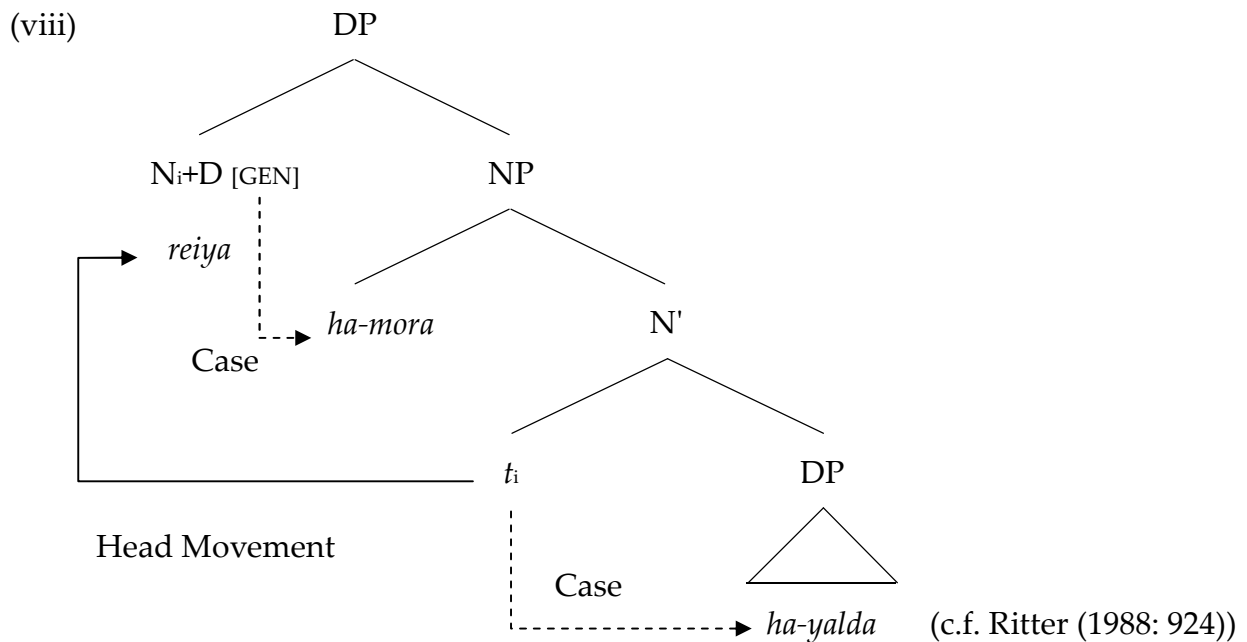
Ritter also discusses the case of nominal derived from transitive verbs, as shown in (vii), which assigns Case to their object while *picture* type nouns do not.



- (vii) a. reiyat ha- mora et ha- yalda  
 view the teacher ACC the- girl  
 'the teacher's view of the girl'
- b. kabalat ha- lakoax et ha- mexir  
 acceptance the- customer ACC the- price  
 'the customer's acceptance of the price'

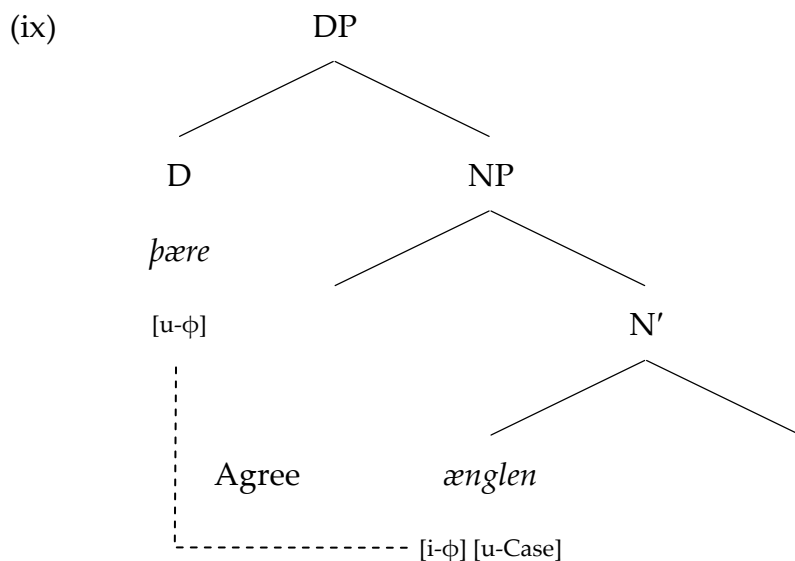
(Ritter (1988: 924))

Unlike *picture* type nouns, these derived nominals can have both a subject in Spec-NP and a complement in side N', as illustrated in (viii).



In (viii), the head noun *reiya* and the morpheme [GEN] give the genitive Case to *ha-yalda* and *ha-mora*, respectively. Again, since [GEN] has to be morphologically supported, it requires movement of the head noun to D.

8 Notice that there is an Agree relation between *pære* and *ænglen* as illustrated in (ix).



The uninterpretable  $\phi$ -features on the head of DP searches its c-command domain for a matching goal, and enters into an Agree relation with the interpretable  $\phi$ -features on *ænglen*.

9 In the framework of the minimalist program, the syntactic structure is formed in a phase-by-phase derivation. Chomsky (2004) argues that the relevant structure is transferred cyclically to the semantic and phonological components by the operation Transfer. Thus, assuming that DP is a phase as suggested by Chomsky (2008), we could argue that the head noun N assigns the genitive Case to the noun phrase *pære ænglen* and delete the Case feature as soon as DP<sub>2</sub> is formed. Likewise, Radford (2009) stipulates the Earliness Principle as stated in (x):

- (x) Operations apply as early in a derivation as possible (Radford (2009: 120))

One might point out that in the later operation, head movement of *word* from the

head of NP2 to the head of DP1 violates the Phase Impenetrability Condition (PIC); the domain of the relevant phase, i.e. NP2, is impenetrable to an external probe because once a complete phase has been formed, the domain of the phase undergoes Transfer. However, it is not clear that PIC is valid for head movement, or we might assume that DP is a weak phase (Chomsky (2001)) and its domain is visible from an outer probe. I would like to leave this problem for further research.

10 The quantifier *ealle* also has some uninterpretable features and enter into an Agree relation with the head *word*, since it inflects for person/number and Case.

11 Watanabe (2009) argues that the uninterpretable  $\phi$ -features on demonstratives changed from formal to semantic when the definite articles emerged, as illustrated in (38). Watanabe's argument seems plausible, since the definite article does not change its morphological form in accordance with its hosts, contrary to the demonstratives.

- (xi) a. the student/students  
that students/ those students

We return to the development of the definite article in chapter 5.

## Chapter 5

---

### *The Emergence of the Definite Article in the History of English*

#### 5.1. Outline

This section discusses the development of the definite article in the history of English. Let us first consider the OE forms of the demonstratives *se* and *þes*; their declensions are shown in Table 1.

**Table 1.** Demonstrative *Se* and *þes*

	<i>se</i>			<i>þes</i>		
	masc.	neut.	fem.	masc.	neut.	fem.
nom. sg.	se	þæt	seo	þes	þis	þeos
acc. sg.	þone	þæt	þa	þisne	þis	þas
gen. sg.	þæs	þæs	þære	þisses	þisses	þisse
dat. sg.	þæm	þæm	þære	þissum	þissum	þisse
Inst.	þy	þy, þon	(þære)	þys	þys	(þisse)
nom. pl.	þa	þa	þa	þas	þas	þas
acc. pl.	þa	þa	þa	þas	þas	þas
gen. pl.	þara	þara	þara	þissa	þissa	þissa
dat. pl.	þæm	þæm	þæm	þissum	þissum	þissum

The demonstratives *se* and *þes* corresponds to *the/that* and *this* in PE. A number of linguistic studies have argued that the definite article in PE, *the*, has developed from distal demonstratives, especially the masculine singular nominative form *se*, which were often used where PE would use the definite article (Mustanoja (1960), Nakao (1972), Traugott (1972), Ono and Nakao (1980) and Watanabe (2009) among others). The distal demonstrative *se* is said to have two functions, i.e. deictic and anaphoric, from which *the* and *that* developed, respectively.

It is often argued that the development from the distal demonstrative to the definite article is one instance of grammaticalization (Osawa (2003), Roberts and Roussou (2003), Wood (2003), Gelderen (2004) and Watanabe (2009) among others). However, there seems to be no consensus in the literature as to the syntactic status of demonstratives in OE; more specifically, it is not clear whether they were a head or a specifier.<sup>1</sup> As observed in chapter 2, I assume that the syntactic position of demonstratives has been the head of DP since the OE period, arguing that the development of the definite article is a case of divergence and semantic bleaching in the sense of Hopper and Traugott (2003).

We also discuss when the definite article was established by considering two criteria suggested by Wood (2003): (i) when plural nouns start to be introduced by the definite article, and (ii) when demonstratives are no longer able to appear independently. I argue that the change from the demonstrative to the definite article started during the twelfth century and completed by the end of the fourteenth century on the basis of Wood's criteria through the investigation of the historical corpora YCOE, PPEME2 and PPCEME. The organization of this chapter is as

follows. Section 5.2 reviews previous studies. Section 5.3 discusses the establishment of the definite article. It is argued in section 5.4 that the developmental process of the definite article may be regarded as one instance of grammaticalization in terms of divergence and semantic bleaching. Section 5.5 is concluding remarks.

## 5.2. Previous Studies

This section reviews previous studies on the development of the definite article *the* in the history of English.

### 5.2.1. Ono and Nakao (1980)

Ono and Nakao (1980) observe that the OE demonstrative *se*, which served as both the demonstrative and the definite article, had the defining and specifying functions while *þes* has the deictic function and refers to a series of specific things, as shown in (1).

- (1) *se* (pæt) ‘the, that’ (specifying function)  
*þes* ‘this’ (deictic function)

The distal demonstratives *se* and *þæs* were the masculine and neuter forms. Later, these variants were specialized and became the definite article *the* and the demonstrative *that*, respectively.<sup>2</sup>

### 5.2.2. Traugott (1972)

Traugott (1972) suggests that *se* may be used either as a pointer (or “deictic”) or

more often as an element that singles out a specific noun from the general class, hence its frequent use in the head of relative clauses, as in (2).<sup>3</sup>

- (2) eall sio giogup þe nu ...  
 all that youth which now ...  
 'all the specific youth that now ...' (Traugott (1972: 86))

Because of its singling out function, *se* could occur in the *se* + *Proper Noun* constructions:

- (3) ... se Hloþwig was þæs aldan Carles sunu ...  
 ... the Hlothwig was the old Charles' son ...  
 'Hlothwig was Charles' elder son' (Traugott (1972: 86))

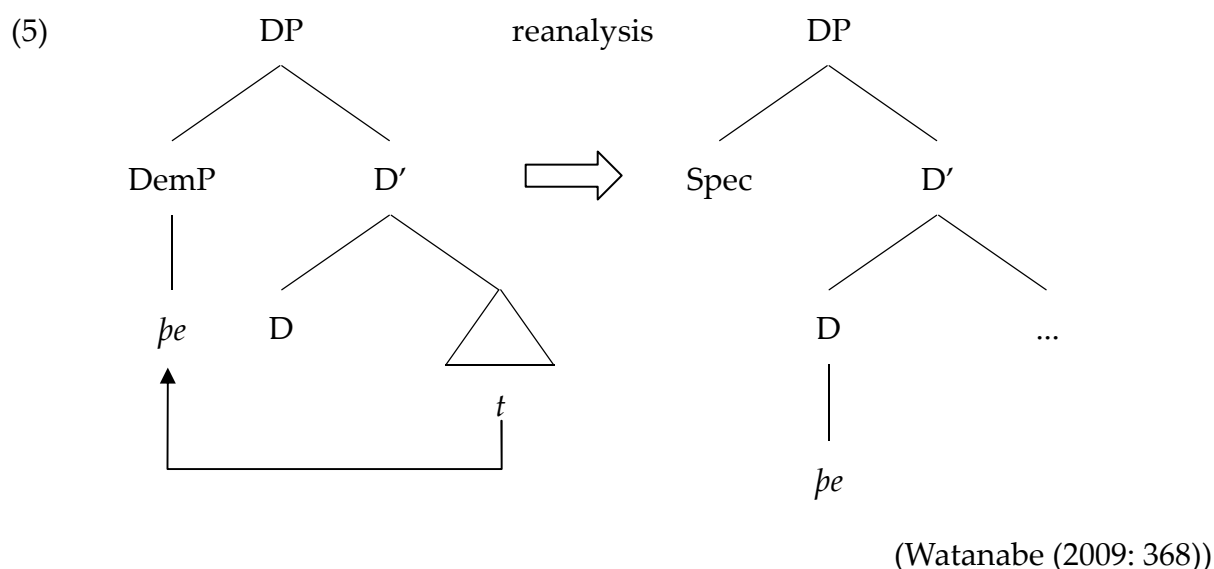
In (3), *se* specifies the particular *Hlothwig* and *Charles*, separating them from others of the same name. Adding to the specifying function, *se* also seems to refer to an "aforementioned (anaphoric)" element in this sentence. While *the* did not exist in OE, there are instances of *se* where the specifying and anaphoric functions of the demonstrative weakened, as illustrated in (4).

- (4) a. þa Beormas 'those Permians'  
 b. þara Terfinna land  
 'of-those White-Sea-Finns land = the land of the White-Sea-Finns'  
 c. seo sunne 'that/the sun'  
 d. seo heofon 'that/the heaven' (Traugott (1972: 87))

In the examples in (4a, b), the demonstratives indicate a known member of a set and do not point to specific members. The demonstrative is also used to express entities culturally evident, as shown in (4c, d). Traugott argues that the definite article grew directly out of such use of *se*, *seo*, and *þæt*.

### 5.2.3. Watanabe (2009)

Watanabe (2009) treats the development of the definite article as due to reanalysis of the distal demonstrative illustrated in (5).<sup>4</sup>



The demonstrative *þe* is base-generated in a position lower than DP, and later raised to Spec-DP in the course of derivation as a result of agreement with respect to its formal definiteness feature. However, the agreement relation was lost in the ME period, because the definiteness feature on D changed from a formal feature into a semantic feature that was unable to enter into agreement. Then, it began to be base-generated in the D head as the definite article. At the same time, the new



180

investigation at all; this means that *þe* could not be used independently. Watanabe claims that a reasonable interpretation of Miller's data is that the emergence of the new form *þe* is a sign of the establishment of the definite article.

However, it seems that Watanabe's analysis is not sufficient to decide when the definite article emerged. As suggested in 5.1, Wood actually gives two criteria for determining when the demonstrative becomes an article. Watanabe utilizes only one of them. In the following section, I discuss the change from demonstratives into the definite article in the light of Wood's two criteria. In addition, the reanalysis illustrated in (5) is problematic: following Watanabe's analysis, we will expect instances which seem to be prohibited.

### 5.3. The Time of the Emergence of the Definite Article

This section explores the time when the definite article *the* emerged in the history of English by using Wood's (2003) criteria: (i) when plural nouns started to be introduced by the definite article, and (ii) when demonstratives were no longer able to appear independently. As for the latter criterion, it is possible to determine syntactically when a form ceased to function as a demonstrative by looking at when it was no longer used independently, i.e. demonstratives may be used as a pronoun but the definite article cannot be separated from its head noun. Focusing on the masculine nominative demonstrative *se* and its change in form to *þe*, Wood investigates how many instances of *se* and *þe* are followed by nouns and verbs in OE by making use of *The Brooklyn-Geneva-Amsterdam-Helsinki Parsed Corpus of Old English Texts* (hence, the Brooklyn Corpus). While the demonstrative followed by nouns is used dependently like an article, the demonstrative followed by verbs is used independently as a pronoun. Since the definite article was not established in the

Wood first gives us examples of *se* with and without a following noun from the Brooklyn Corpus.

- On the other hand, her search for *þe* followed by a verb produced no examples, which might mean that *þe* was not used independently (as a pronoun). For *þe* used dependently, the following examples are found.<sup>7</sup>

- 182

- b. *ðā soðlice geendode þe gebeorscipe*  
 then truly ended that feast (APOLLO28.17.15)
- c. *þa þe æfterfylgendan dæge sona on dægred com*  
 then that after-following day soon at down came  
*ærendraca to Iuliane*  
 messenger to I (GREGD4.38.27)
- d. *& þa þe teoðan gære he wæs his rices bereafod*  
 and then that tenth year he was his rule bereaved  
 (GREGD4.133.7)  
 (Wood (2003: 69))

With no example of pronominal *þe*, the results of the investigation would suggest that the form changed before the demonstrative changed into an article in light of Wood's second criterion. However, the examples in (9) show only the singular nouns following the *þe*, which does not satisfy the first criterion. Thus, Wood concludes that there is no dedicated form in OE for the definite article.

Following Wood's criteria, I have independently investigated the demonstrative *þe* followed by plural nouns by using YCOE, and found examples like (10).

- (10) a. ... mid his biscopes & mid *þe lerede folc*  
 ... with his bishops and with the learned people  
 '... with his bishops and the learned people'  
 (cochronE-INTERPOLATION,ChornE\_[Plummer]:656.128.480: o3)

b. ... *ealle þe bisceopas* ...

... all the bishops ...

‘... all the bishops ...’

(cochronE-INTERPOLATION,ChronE\_[Plummer]:675.40.545:o3)

In (10), the demonstrative *þe* is followed by the plural nouns, *folc* and *bisceopas*.

These nouns follow the plural demonstrative in other contexts as illustrated in (11).

(11) a. ... wið eal þa folc

... with all these people

‘... with all these people’

(Coorosiu,Or\_5:10.123.28.2593:o2)

b. Ond ealle þa biscopas him ondsworodon

and all these bishops him answered

‘... and all these bishops answered him’

(cobede,BedeHead:2.12.6.44: o2)

The demonstrative *þa* is the form of nominative/accusative, plural and masculine/neuter/feminine. Judging from the investigation here and Wood’s analysis, it can be said that *þe* could not be used independently as a pronoun, and could be followed by either a singular or plural noun. Since the results from the investigation satisfy Wood’s criteria (i) and (ii), I argue that the change from *s-* to *þ-* in form is the mark of the establishment of the definite article.

Given the sign of the birth of the definite article, I have also investigated the distributions of the variants of *se* by using YCOE, PPCME2 and PPCME to determine exactly when the definite article was established in the history of English. Consider Tables 2 and 3.

Table 2 The Distribution of the Variants of *Se*: Number of Instances

	se	pone	pæs	pæm	py	pæt	pon	seo	pa	pære	para	pe	the	pat	that	those	Total
OE1	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	7
OE2	3997	1657	2514	1538	436	1978	47	967	4148	2470	8	14	0	0	0	0	19774
OE3	5836	2008	1915	64	71	2182	2	1273	3596	1788	34	24	0	0	0	0	18793
OE4	14	4	7	0	0	18	1	15	22	10	0	0	0	0	0	0	91
ME1	135	51	6	0	0	1	15	5	115	16	12	2742	8	135	0	0	3241
ME2	6	0	0	0	0	0	0	0	5	0	0	3422	99	99	4	0	3635
ME3	0	0	0	0	1	0	0	0	3	0	1	8053	7239	1340	136	0	16773
ME4	0	0	0	0	0	0	0	0	0	0	0	4577	5480	358	604	0	11019
ModE1	0	0	0	0	0	0	0	0	0	0	0	0	19735	0	913	9	20657
ModE2	0	0	0	0	0	0	0	0	0	0	0	0	21684	0	1030	6	22720
ModE3	0	0	0	0	0	0	0	0	0	0	0	0	16244	0	1196	3	17443

OE1 -850, OE2 950, OE3 -1050, OE4 -1150, ME1 -1250, ME2 -1350, ME3 -1420, ME4 -1500, ModE1 -1570, ModE2 -1640, ModE3 -1710

**Table 3 The Distribution of the Variants of *Se*: Percentage of Instances**

	se	pone	pæs	pæm	py	pæt	pon	seo	pa	pære	para	pe	the	pat	that	those	Total
OE1	85.7	0	0	0	0	14.3	0	0	0	0	0	0	0	0	0	0	100
OE2	20.1	8.4	12.7	7.8	2.2	10.0	0.2	4.9	21.0	12.5	0.1	0.1	0	0	0	0	100
OE3	31.0	10.7	10.2	0.3	0.4	11.6	0.1	6.8	19.1	9.5	0.2	0.1	0	0	0	0	100
OE4	15.4	4.4	7.7	0	0	19.8	1.1	16.5	24.2	10.9	0	0	0	0	0	0	100
ME1	4.1	1.6	0.2	0	0	0.1	0.5	0.2	3.5	0.5	0.4	84.6	0.2	4.1	0	0	100
ME2	0.2	0	0	0	0	0	0	0	0.1	0	0	94.2	2.7	2.7	0.1	0	100
ME3	0	0	0	0	0.1	0	0	0	0.1	0	0.1	47.9	43.1	7.9	0.8	0	100
ME4	0	0	0	0	0	0	0	0	0	0	0	41.5	49.7	3.3	5.5	0	100
ModE1	0	0	0	0	0	0	0	0	0	0	0	0	95.5	0	4.4	0.1	100
ModE2	0	0	0	0	0	0	0	0	0	0	0	0	95.4	0	4.5	0.1	100
ModE3	0	0	0	0	0	0	0	0	0	0	0	0	93.1	0	6.8	0.1	100

OE1 -850, OE2 950, OE3 -1050, OE4 -1150, ME1 -1250, ME2 -1350, ME3 -1420, ME4 -1500, ModE1 -1570, ModE2 -1640, ModE3 -1710

Until the period of OE4, the ratios of variants of *se* were well-balanced.<sup>8</sup> However, there seems to be important changes in ME1: the ratio of *þe* sharply rose up to almost eighty-five percent while those of the others drastically decreased. Furthermore, in ME2, most of the variants of *se* died away. Instead, the new forms, i.e. *þe*, *þat*, *the* and *that*, started to appear. It seems that there were significant relations between the ratio of *þe* and that of *the*; the ratio of *þe* reached its peak during ME2, 94.2% and it suddenly fell down to 47.9% during ME3 and ME4, whereas the ratio of *the* was very low until ME2 and it suddenly rose up to 43.1% during ME3. Finally, *þe* died out and *the* keeps increasing up to 95.5% during ModE1. Therefore, I conclude that the replacement of *þ-* with *th-* took place during ME 3 and ME4. The same replacement phenomenon can be observed between *þat* and *that* in the same period.

On the basis of the discussion made in this section, I argue that the establishment of the definite article started during the twelfth century and completed by the fourteenth century.

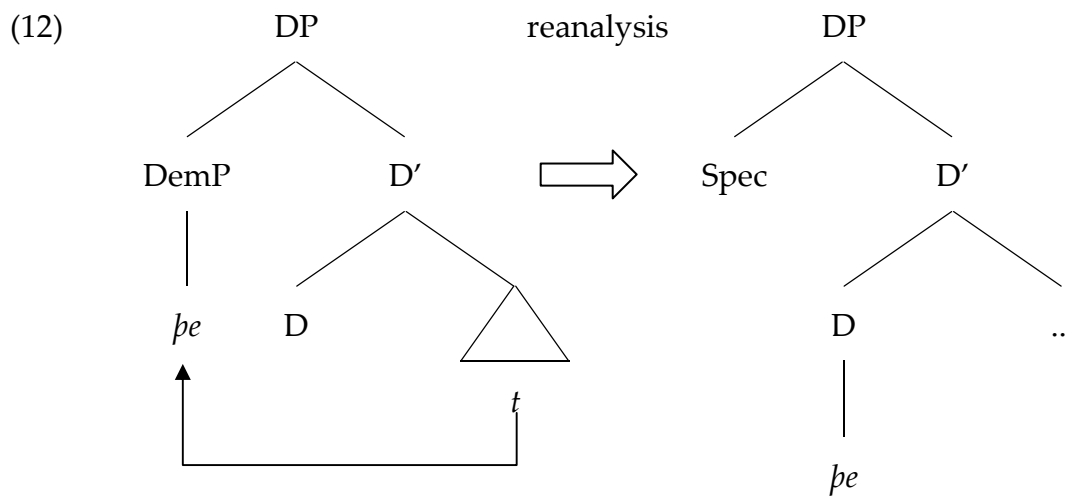
#### **5.4. The Development of the Definite Article as Grammaticalization**

This section discusses the developmental process of the definite article. A number of linguists argue that the development of the definite article is one instance of grammaticalization. However, there seems to be no consensus in the literature as to the syntactic status of demonstratives in OE, i.e., whether they were located in a head or a specifier position. Following the conclusion in chapter 2, I argue that the syntactic position of demonstratives has been the head of DP since the OE period, and that the development of the definite article is one instance of grammaticalization in terms of divergence and semantic bleaching.



#### 5.4.1. Problems with Previous Studies

In a similar way as Watanabe's (2009) analysis, a number of linguists argue that demonstratives were placed in or moved to Spec-DP in OE, and were reanalyzed as the head of DP in later periods (Lyons (1999), Guisti (2001), Roberts and Roussou (2003) among others). Their idea is, roughly, as follows.



However, this analysis seems to contain some problems. The reanalysis illustrated in (12) can be considered as a case of the change from Spec to head, to which Gelderen (2004) gives an account based on the principle as in (13).

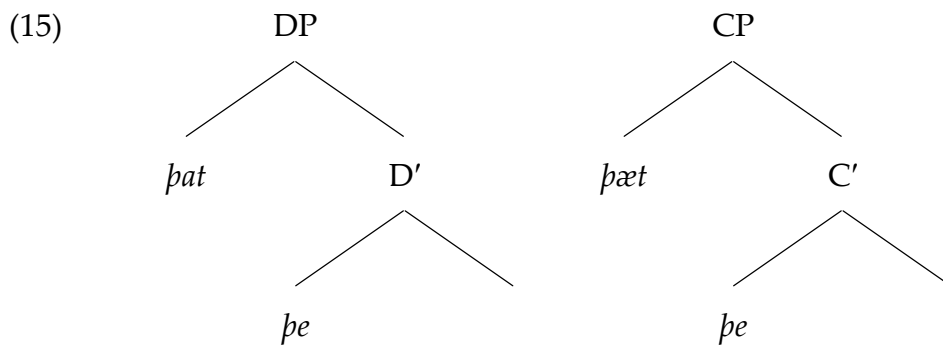
- (13) Head Preference or Spec to Head Principle:  
Be a head, rather than a phrase. (Gelderen (2004: 11))

In order to support the principle in (13), Gelderen gives examples like (14) where one *that* is in Spec and another is in the head within the same CP.

- (14) forðam wearð ylða bearnum undyrne cuð gyddum  
therefore became to-elders to-children not-hidden known through-tales  
geomore þæt þe Grendel wan hwile wið Hroþgar  
sadly that that Grendel fought while against Hrothgar  
‘Therefore, all mankind found out in sad tidings that Grendel fought against  
Hrothgar.’ (Beowulf 149-151)

(Gelderen (2004: 90))

The process of grammaticalization generally includes an intermediate stage in which an old form and a new form coexist. Thus, if the analysis in (12) were on the right track, it would be expected that there is a transitional structure where both Spec and head of the same DP are occupied by a demonstrative and the definite article, respectively, in much the same way as the complementizers shown in (15).<sup>9</sup>



By using YCOE and PPCME2, I have investigated how many examples corresponding to the structure in (15) are found to see if this expectation is correct. From the result of the investigation, no such examples are found except for the one shown in (16).

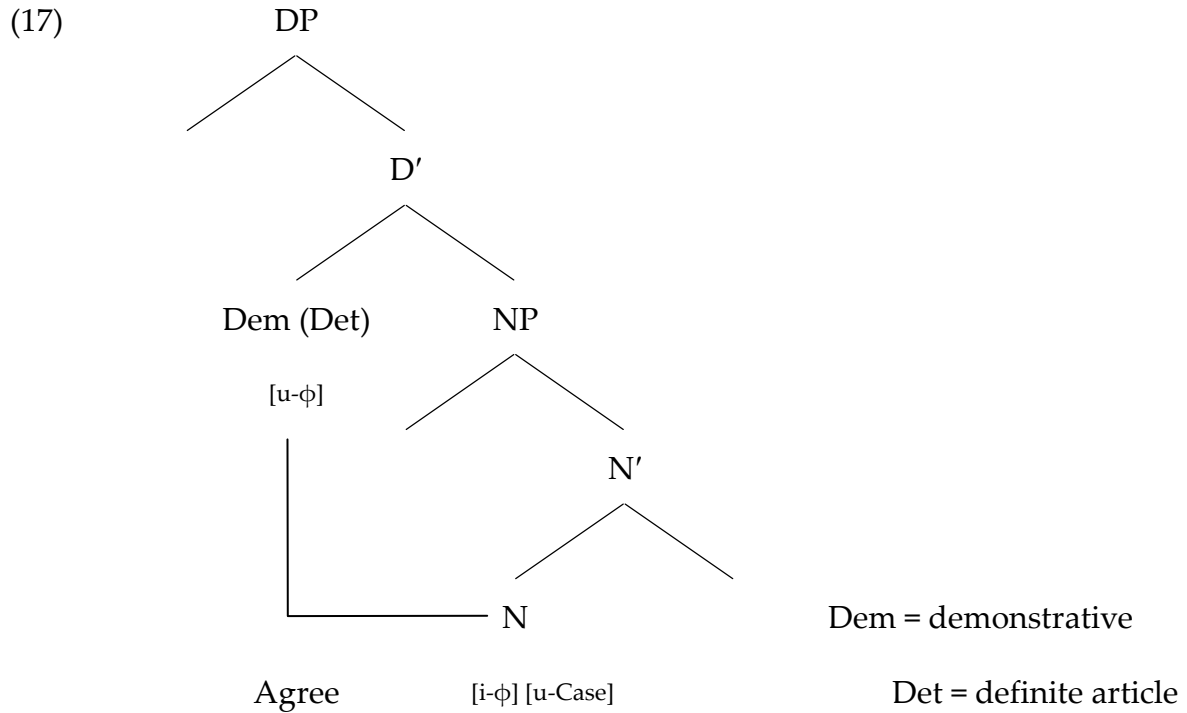
(16)      thys the worscheppe

(CMGREGOR,223.2202:m4)

However, the example (16) is quite exceptional because it is from the fifteenth century, which does not match with the time when the definite article emerged; we have concluded in the previous section that the establishment of the definite article had been completed by the fourteenth century. Also, it is the only instance that is attested in the corpora. Thus, the existence of the example in (16) does not support the analysis in (12). On the contrary, such analysis is very dubious, since no example is attested to prove the change from Spec to head. In the following section, I argue that demonstratives in OE were placed in the head of DP.

#### **5.4.2. Grammaticalization: Divergence and Semantic Bleaching**

As discussed in chapters 2 and 3, I continuously assume that the noun phrase structure is DP headed by the functional D taking NP as its complement, and that demonstratives in OE occupy the head of DP and so are the definite article, as illustrated in (17).

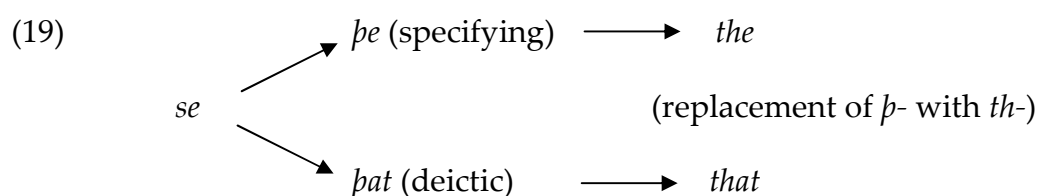


The position of demonstratives is not Spec-DP, but the head of DP; thus, there is no chance for the demonstrative and the definite article to cooccur within the structure in (17).<sup>10</sup> It has been also assumed that the internal syntax of DP with demonstratives is analyzed under an Agree operation proposed within the recent Minimalist framework since Chomsky (2000) as we have discussed in chapter 4. In (17), demonstratives have the uninterpretable  $\phi$ -features, which function as a probe and search for a goal in the same way as other functional categories such as T and  $v^*$ . Here, the interpretable  $\phi$ -features on the head noun are a proper goal for the probe on D to enter into agreement. As a result of the Agree relation, the uninterpretable  $\phi$ -features are valued and deleted, and are realized as an inflectional morphology in PF. When the definite article came to emerge in early ME, these uninterpretable  $\phi$ -features were lost, which is evidenced by the fact that the definite article does not show agreement with its head noun. Demonstratives, at the same time, lost gender and Case features, but preserved its number feature since demonstratives still show

agreement with their head nouns in number in PE, as illustrated in (18).

- (18) a. the student(s)  
 b. that student/those students

Therefore, the development of the definite article can be summarized as in (20).



The masculine singular nominative form *se*, one of the distal demonstratives, changed into the definite article, which has specifying function. The new type of demonstrative simultaneously developed from *se*, which has deictic function. I argue that this change is an instance of grammaticalization in terms of divergence and semantic bleaching proposed by Hopper and Traugott (2003).

According to Hopper and Traugott, the characteristic of divergence is that “when a lexical form undergoes grammaticalization to a clitic or affix, the original lexical form may remain as an autonomous element and undergo the same changes as ordinary lexical item (118).” They present the development of the English indefinite article *a(n)* as an instance of divergence. In OE, this word was *an*, which means ‘one, a certain.’ It was not used in the general non-specific sense which we might use it in PE, but was chiefly used to introduce a new item, as shown in (20a) and (20b), respectively.

(20) a. I caught *a* fish

b. There was once *a* prince of Tuscany. (Hopper and Traugott (2003: 119))

The indefinite article *a(n)* diverged from the OE word *an*, which remains as an autonomous element *one* in PE, and acquired its non-specific function as a result of the change.

As observed in (19), demonstratives and the definite article were historically a single form *se* over centuries, and *þe* diverged from the original word to become the definite article. Also, the original lexical item *se* remained as an autonomous element and changed into the new demonstrative *þat*. Each of the items underwent their own changes and has continued to exist. In this sense, their development is an instance of divergence.<sup>11</sup>

As for semantic bleaching, demonstratives are different from the definite article in that the former have the deictic function whereas the latter has the anaphoric reference function. In other words, the definite article is semantically less restricted in comparison with demonstratives which have the specifying function within a certain space. The deictic function of demonstratives was not taken over by the definite article when it emerged. This means that the development of the definite article involved the loss of its semantic content.<sup>12</sup>

#### 5.4.3. Grammaticalization: from Grammatical Word to Clitic

In addition to divergence and semantic bleaching, I argue that the development of the definite article is one instance of grammaticalization along with the cline in (21) proposed by Hopper and Traugott (2003).

(21) content item > grammatical word > clitic > inflectional affix

(Hopper and Traugott (2003: 7))

The PE demonstrative is a grammatical word in light of the criterion suggested by Hopper and Traugott: grammatical words are phonetically independent as exemplified in (22).

(22) a. This is where we're *at*.

b. This bed has been slept *in*.

(Hopper and Traugott (2003: 4))

In (22), the prepositions *at* and *in*, which are widely regarded as grammatical words, can be found at the end of a clause without a noun phrase. On the contrary, the definite article cannot be at the end of a clause like the prepositions in (22). This is because it is a clitic-like element which requires its host; otherwise it cannot appear independently as shown in (23).

(23) a. \**The* is purely academic. (cf. √*That* is purely academic.)

b. \*Any body with average mental ability can see *the*.

(cf. √Any body with average mental ability can see *that*.)

Notice that demonstratives can appear in the circumstances where the definite article cannot appear. In addition, as observed in (18), demonstratives show inflection in accordance with its complement while the definite article does not:

(18) a. the student(s)

- b. that student/those students

From these facts, it is concluded that the definite article is an element remarkably similar to clitic, thus, its development as grammaticalization instantiates the change from a grammatical word to a clitic along the cline in (21).

### 5.5. Concluding Remarks

Having discussed the development of the definite article *the*, I have argued the following three points: (i) the development of the definite article started at the end of the twelfth century and completed during the fourteenth century, (ii) the position of demonstratives has been the head of DP since the OE period and (iii) its development is one instance of grammaticalization in terms of divergence and semantic bleaching, and it also instantiates the change from a grammatical word to a clitic along the cline proposed by Hopper and Traugott (2003).



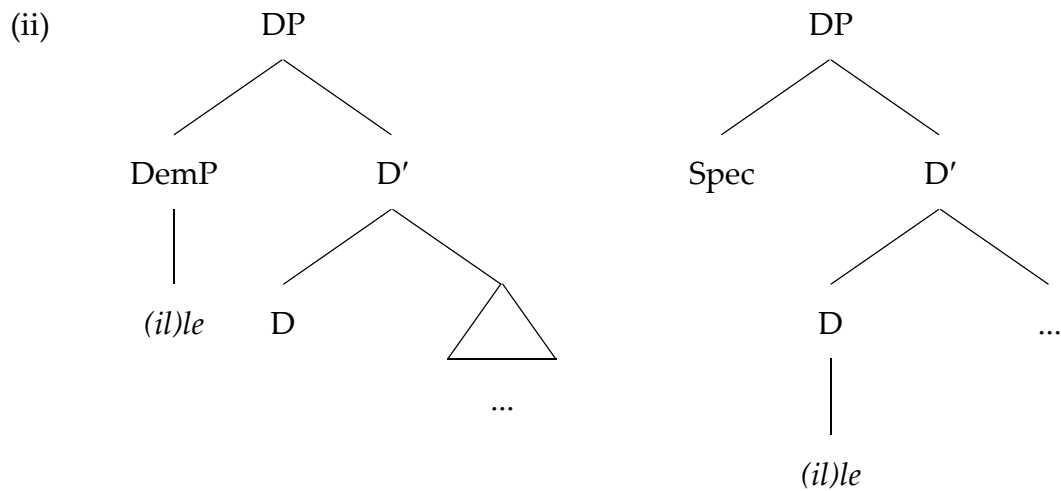
## Notes to Chapter 5

1. Some studies claim that there was no DP in OE, but they emerged in the history of English; demonstratives had the status of NP because they inflect for gender, person, number and Case in accordance with nouns they modify (Osawa (2003)). However, this paper assumes that when a noun phrase is definite, DP must be projected. Since the appearance of demonstratives means that the noun phrase is definite, it must project DP, the head of which has the [+definite] feature to be checked by a matching element, e.g. demonstratives (see chapter 3 and 4).

2 Ono and Nakao connect the origin of the definite article with weak adjectives, arguing that weak adjectives in Germanic languages were made by adding the demonstrative *\*en/on* as a sign of definiteness and substantivation. When the referring force of the affix, which functioned as a kind of the definite article, weakened, demonstratives started to be put before adjectives to support their deictic function.

3 Traugott argues that the demonstrative *þes* 'this' does not have the specifying function but the deictic function, and that *þes* differs from *se* in that it could not be used anaphorically ("aforementioned" in her term).

4 Although Watanabe claims that the change illustrated in (5) is exactly the analysis proposed by Giusti (2001) for the development of the definite article in Romance, Giusti's analysis is somewhat different from Watanabe's. Giusti discusses the change from the Latine demonstrative *ille* to the Romance definite article *le*, arguing



5 Watanabe's claim here is based on Bernstein (1997) and Brugè (2002), in which the surface position of demonstratives in Romance is argued to be derived by movement, but he does not present any example which supports his claim. A possible example would be as follows.

- |     |              |     |       |                        |
|-----|--------------|-----|-------|------------------------|
| (i) | ez           | a   | haz   | (Hungarian)            |
|     | this         | the | house |                        |
|     | 'this house' |     |       | (Bernstein (1997: 93)) |

Given that the definite article *a* ‘the’ is base-generated in the head of DP, we are led to conclude that as a prerequisite for movement, the demonstrative *ez* ‘this’ must enter into agreement with respect to a formal feature other than definiteness.

6 Crisma (1999) claims that *se* functioned as the definite article already in OE, on the

basis of the alternation *se Ælmihtiga God* and *Ælmihtiga God*. The latter is argued to be derived by N-to-D movement of *God*. Philippi (1997) suggests that the definite article appeared in the late ME period, judging from the contexts where the definite article would be expected in PE.

7 Notice that the example (9a) shows that *s-* is retained in the nominative feminine pronouns *seo* whereas the nominative masculine in *þe uplican* has changed from *s-* to *þ-*. Wood suggests that this example is from the first stage of adjustment in the paradigm.

8 I found only seven instances of distal demonstratives in the OE1 period. Thus, the ratio of *se* in OE1 overwhelms the others, but this is because of the rareness of the instances.

9 In languages where demonstratives are considered as placed in Spec-DP, a demonstrative and the definite article can cooccur as observed in note 5.

10 Note that the example in (16) is quite exceptional; it is the only instance attested in the corpora, and it is from the period later than that when the definite article emerged.

11 One might claim that the development of the definite article is not a case of divergence since the remaining demonstrative also underwent changes to be the new demonstrative, with the original form *se* lost. Hopper and Traugott (2003) do not mention as to whether or not the remaining element undergo further changes after

an element diverges. It seems that there is no theoretical problem in further changes of original forms. Even if the change here is not an exact case of divergence in its strict sense, I argue that it is still a case of divergence, or else the definite article underwent some other kind of grammaticalization process similar to divergence.

12 Wood (2003: 72) also argue that “when the demonstrative changes to the article in English it loses its deictic features, the ability to be used pronominally, and it no longer has to check number agreement.”

## *Chapter 6*

---

### *Conclusion*

In this thesis, I have shed light on the issues concerning the development of the structure of English noun phrases, which are still controversial or unclear. In the study of diachronic change in English, little attention has been paid to the syntax of noun phrases and their development. In this chapter, we summarize the findings of this thesis and discuss their significance for historical linguistics.

In chapter 2, we have discussed the distribution of quantifiers, articles/demonstratives, possessive pronouns and adjectives within noun phrases in the history of English. Investigating the distribution of the elements within noun phrases by the historical corpora, I have found that the word order of elements within noun phrases in early English is basically the same as that in PE except for possessive pronouns; in other words, the distributional difference between PE and early English is accounted for in terms of the unique behavior of possessive pronouns in early English. As for the optional movement of possessive pronouns, I have proposed the licensing condition on definiteness of DP. It has also been argued that possessive pronouns were grammaticalized into a central determiner occupying the head of DP during LModE. The position of possessive pronouns first changed from Spec-NumP to the head of NumP in ME, in accordance with the Spec to Head Principle; then, they came to appear in the head of DP during LModE period. The existence of double determiners, one of the most remarkable

phenomena in early English, has been accounted for in terms of the syntactic status of possessive pronouns in early English. Double determiners disappeared when possessive pronouns began to occupy the head of DP in competition with determiners.

In chapter 3, I have argued that the genitive *-’s* has developed from the OE genitive inflection *-(e)s*, and that it is now a genitive Case assigner occupying the head D. It is also proposed that a series of changes of *-(e)s/-’s* is one instance of degrammaticalization, especially deinflectionalization in terms of Nord (2009): the development of *-(e)s*, from a genitive inflectional affix to a clitic, is one of counterexamples to the unidirectionality of grammaticalization. We have observed a number of cases of degrammaticalization reported in the literature. As a consequence of the analysis proposed in this chapter, it has been demonstrated that the distribution of genitives in the history of English can be naturally accounted for in terms of the development of *-’s* and the licensing condition on definiteness.

In chapter 4, we have discussed the loss of postnominal genitives in the history of English in terms of the development of the genitive inflection *-(e)s/-’s*. There are not many previous studies on postnominal genitives and their loss, and, as far as I know, no study provides a syntactic analysis of postnominal genitives in OE and their final loss. Assuming the double DP structure, I have argued that the head noun of NP2 has to move to the head position of NP1 in order to be its host in OE, and that the requirement for the head movement ceased to be satisfied because the genitive inflection *-(e)s* came to block its movement. Thus, the derivation of the double DP structure no longer converged, leading to the loss of postnominal genitives.

In chapter 5, the emergence of the definite article *the* has been discussed. As for this issue, there are three questions; (i) exactly when the definite article was

introduced into English; (ii) the position of demonstratives in OE; (iii) the developmental process of the definite article. For these, I have argued that (i) the development of the definite article started at the end of the twelfth century and completed during the fourteenth century, (ii) the position of demonstratives has been the head of DP since the OE period and (iii) its development is one instance of grammaticalization in terms of divergence and semantic bleaching, and it also instantiates the change from a grammatical word to a clitic along the cline proposed by Hopper and Traugott (2003).

This thesis makes two significant contributions to historical linguistics through studying the development of the structure of noun phrases. First, I have carried out a comprehensive and statistical research for the issues concerning the development of noun phrases by using the historical corpora, which cover all the stages of the history of English, and discovered a number of new linguistic facts, e.g., the word order of elements within noun phrases, the distributional change of genitives in the history of English, the period when the definite article *the* emerged and so on. Second, on the basis of the results of the investigations on the data collected from the corpora, I gave them an account within the framework of a theory of (de)grammaticalization. In other words, by discussing and analyzing the issues which have great influence on the development of the structure of noun phrases, this study theoretically contributes to the whole study of grammaticalization. However, there are a lot of phenomena I could not discuss in this thesis. For example, there remains a distributional change of adjectives in the history of English; rather various kinds of adjectives could postmodify the head noun in earlier stages in English than in PE. The comparison of the development of the structure of noun phrases and that of clauses will give us another perspective in the analyses of the former.

Furthermore, even the phenomena discussed in this thesis are still open for further research, because new findings will inflect various aspects of the issues which we have discussed. From these perspectives, I must admit that this thesis is not comprehensive enough. However, it is also fair to point out that this study presents some progress in the syntax of noun phrases and its development.



## ***Bibliography***

---

- Abney, Steven P. (1987) *The English Noun Phrase in Its Sentential Aspect*, Doctoral dissertation, MIT.
- Akimoto, Minoji (2002) *Bunpoka to Idiomuka* (Grammaticalization and Idiomatization), Hituzi Syobo, Tokyo.
- Alexiadou, Artemis (2004) "On the Development of Possessive Determiners," *Diachronic Clues to Synchronic Grammar*, ed. by Eric Fuß and Carola Trips, 31-58, John Benjamins, Amsterdam.
- Allen, Cynthia L. (1997) "The Origins of the 'Group Genitive' in English," *Transactions of the Philological Society* 95, 111-113.
- Allen, Cynthia L. (2003) "Deflexion and the Development of the Genitive in English," *English Language and Linguistics* 7, 1-28.
- Allen, Cynthia L. (2006) "Case Syncretism and Word Order Change," *The Handbook of the History of English*, ed. by Ans van Kemenade and Bettelou Los, 201-223, Blackwell, Oxford.
- Allen, Cynthia L. (2008) *Genitives in Early English: Typology and Evidence*, Oxford University Press, Oxford.
- Altenberg, Bengt (1982) *The Genitive v. the Of-Construction: A Study of Syntactic Variation in 17th Century English*, CWK Gleerup, Malmö.
- Amano, Masachiyo (2003) "On the Historical Role of the *His*-Genitive in the Development of 'S,'" *Studies in Modern English: The Twentieth Anniversary Publication of the Modern English Association*, 95-108, Eichosha, Tokyo.

- Amano, Masachiyo (2007) "On the Grammatical Reorganization of *Both*, *All* and *Half*," *Exploring the Universe of Language: A Festschrift for Dr. Hirozo Nakano on the Occasion of His Seventieth Birthday*, ed. by Masachiyo Amano, Kozo Kato, Makiyo Niwa, Ko-ichiro Hamasaki, Tomoyuki Tanaka, Yusaku Oteki, Kay Nakago and Eiko Mizuno, 21-33, Department of English Linguistics, Nagoya University, Nagoya.
- Anderson, Mona (1983-4) "Prenominal Genitive NPs," *The Linguistic Review* 3, 1-24.
- Anderson, Stephen R. (2008) "The English "Group Genitive" is a Special Clitic," *English Linguistics* 25, 1-20.
- Araki, Kazuo and Masatomo Ukaji (1984) *Eigoshi III A* (History of English III A), Taishukan, Tokyo.
- Baker, Mark, Kyle Johnson and Ian Roberts (1989) "Passive Arguments Raised," *Linguistic Inquiry* 20, 219-251.
- Bernstein, Judy B. (2001) "The DP Hypothesis: Identifying Clausal Properties in the Nominal Domain," *The Handbook of Contemporary Syntactic Theory*, ed. by Mark Baltin and Chris Collins, 536-561, Blackwell Publishers, Oxford.
- Broekhuis, Hans (2005) "Locative Inversion in English," *Linguistics in Netherlands* 2005, ed. by Jenny Doetjes and Jeroen Van der Weijer, 49-60, John Benjamins, Amsterdam.
- Broekhuis, Hans (2008) *Derivations and Evaluations: Object Shift in the Germanic Languages*, Mouton de Gruyter, Berlin.
- Brugé, Laura (2002) "The Position of Demonstratives in the Extended Nominal Projection," *Functional Structure in DP and IP: The Cartography of Syntactic Structures* Vol. 1, ed. by Guglielmo Cinque, 15-53, Oxford University Press, Oxford.

- Bybee, Joan, Revere Perkins and William Pagliuca (1994) *The Evolution of Grammar: Tense, Aspect, and Modality in the Languages of the World*, University of Chicago Press, Chicago and London.
- Cardinaletti, Anna (1998) "On the Deficient/Strong Opposition in Possessive System," *Possessors, Predicates and Movement in the Determiner Phrase*, ed. by Artemis Alexiadou and Chris Wilder, 17-54, John Benjamins, Amsterdam.
- Carey, Gordon V. (1953) *American English: A Handbook for Translators*, Heinemann, London.
- Carlson, Anita M. (1978) "A Diachronic Treatment of English Quantifiers," *Lingua* 46, 295-328.
- Carstens, Vicki (2000) "Concord in Minimalist Theory," *Linguistic Inquiry* 31, 319-355.
- Chomsky, Noam (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, Noam (1986) *Knowledge of Language: Its Nature, Origin, and Use*, Praeger, New York.
- Chomsky, Noam (1995) *The Minimalist Program*, MIT Press, Cambridge, MA.
- Chomsky, Noam (2000) "Minimalist Inquiries: The Framework," *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels and Juan Uriagereka, 89-155, MIT Press, Cambridge, MA.
- Chomsky, Noam (2001) "Derivation by Phase," *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 1-51, MIT Press, Cambridge, MA.
- Chomsky, Noam (2004) "Beyond Explanatory Adequacy," *Structures and Beyond: The Cartography of Syntactic Structures Vol. 3*, ed. by Adriana Belletti, 104-131, Oxford University Press, Oxford.
- Chomsky, Noam (2007) "Approaching UG from Below," *Interfaces + Recursion = Language?: Chomsky's Minimalism and the View from Syntax-Semantics*, ed. by Uli

- Sauerland and Hans-Martin Gärtner, 1-29, Mouton de Gruyter, Berlin.
- Chomsky, Noam (2008) "On Phases," *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, ed. by Robert Freidin, Carlos P. Otero and Maria Luisa Zubizarreta, 133-166, MIT Press, Cambridge, MA.
- Cinque, Guglielmo (1990) *Types of A'-Dependencies*, MIT Press, Cambridge.
- Cinque, Guglielmo (1994) "On the Evidence for Partial N-Movement in the Romance DP," *Paths Towards Universal Grammar: Studies in Honor of Richard S. Kayne*, ed. by Guglielmo Cinque, Jan Koster, Jean-Yves Pollock, Luigi Rizzi and Raffaella Zanuttini, 85-110, Georgetown University Press, Washington.
- Cinque, Guglielmo (1999) *Adverbs and Functional Heads: A Cross-Linguistic Perspective*, Oxford University Press, Oxford.
- Citko, Barbara (2005) "On the nature of Merge: External Merge, Internal Merge, and Parallel Merge," *Linguistic Inquiry* 36, 475-496.
- Crisma, Paola (2000) "sintassi formale e lingue medievali: l'articolo in inglese antico," *Archivio Glottologico Italiano* LXXXV(1), 38-84.
- Curme, George O. (1931) *Syntax*, D. C. Heath and Company, Boston.
- Declerck, Renaat (1998) *A Comprehensive Descriptive Grammar of English*, Kaitakusha, Tokyo.
- Fischer, Olga (1992) "Syntax," *The Cambridge History of English Language*, Vol. II, 1066-1476, ed. by Norman Blake, 207-408, Cambridge University Press, Cambridge.
- Fishcer, Olga (2000) "The Position of the Adjective in Old English," *Generative Theory and Corpus Studies*, ed. by Richardo Bermúdez-Otero, David Denison, Richard M. Hogg and C.B. McCully, 153-181, Mouton de Gruyter, Berlin.
- Fischer, Olga (2006) "On the Position of Adjectives in Middle English," *English*

*Language and Linguistics* 10. 2, 253-288.

Fischer, Olga, Ans van Kemenade, Willem Koopman, and Wim van der Wurff (2000)

*The Syntax of Early English*, Cambridge University Press, Cambridge.

Fischer, Olga and Wim van der Wurff (2006) "Syntax," *A History of the English*

*Language*, ed. by Richard Hogg and David Denison, 109-198, Cambridge University Press, Cambridge.

Fiva, Toril (1985) "NP-Internal Chains in Norwegian," *Nordic Journal of Linguistics* 8,

25-47, Cambridge University Press, Cambridge.

Fries, Charles C. (1986) "On the Development of the Structural Use of Word-Order,"

*Readings for the History of the English Language*, ed. by Charles Scott and Joe Erickson, 268-276, Allyn and Bacon, Boston.

Frisch, Stefan (1997) "The Change in Negation in Middle English: A NEGP Licensing

Account," *Lingua* 101, 21-64.

Fukui, Naoki (1986) *A Theory of Category Projection and Its Applications*, Doctoral

dissertation, MIT.

Fukui, Naoki (1988) "Deriving the Differences Between English and Japanese: A Case

Study in Parametric Syntax," *English Linguistics* 5, 249-270.

Gelderen, Elly van (2004) *Grammaticalization as Economy*, John Benjamins,

Amsterdam.

Guisti, Giuliana (2002) "The Functional Structure of Noun Phrases: A Bare Phrase

Structure Approach," *Functional Structure in DP and IP: The Cartography of Syntactic Structures* vol. 1, ed. by Guglielmo Cinque, 54-90, Oxford University Press, Oxford.

Hamasaki, Ryuichiro (1987) "Naze Zokukaku dakega Nokottanoka?" (Why Has

Only the "Genitive Case" Survived?" *Kindai Eigo Kenkyu* 11 (Studies in Modern

- English 4), 1-19.
- Haumann, Dagmar (2003) "The Postnominal 'and Adjective' Construction in Old English," *English Language and Linguistics* 7.1, 57-83.
- Higginbotham, James (1985) "On Semantics," *Linguistic Inquiry* 16, 547-593.
- Hopper, Paul J. and Elizabeth Closs Traugott (2003) *Grammaticalization*, 2nd ed., Cambridge University Press, Cambridge.
- Hornstein, Norbert (2008) *A Theory of Syntax: Minimal Operations and Universal Grammar*, Cambridge University Press, Cambridge.
- Huddleston, Rodney and Geoffrey K. Pullum (2002) *The Cambridge Grammar of the English Language*, Cambridge University Press, Cambridge.
- Ibaraki, Seishirou (2008) "On Predeterminers," *Linguistics and Philology* 27, 71-88.
- Ibaraki, Seishirou (2009a) "The Distribution of Articles/Demonstratives, Possessive Pronouns and Adjectives within Noun Phrases in the History of English," *Linguistics and Philology* 28, 33-56.
- Ibaraki, Seishirou (2009b) "The Development of the Determiner System in the History of English," *English Linguistics* 26, 67-95.
- Ibaraki, Seishirou (2010a) "A Corpus-Based Study of the Development of the Determiner System in the History of English," *Linguistics and Philology* 29, 1-18.
- Ibaraki, Seishirou (2010b) "Eigoshiniokeru Zokukaku no Hattatsunituite (On the Development of Genitives in the History of English)," *JELS* 27, 61-70.
- Ibaraki, Seishirou (2010c) "The Emergence of the Definite Article," *Synchronic and Diachronic Approaches to the Study of Language; A Collection of Papers Dedicated to the Memory of Professor Masachiyo Amano*, ed. by Hirozo Nakano, Masayuki Ohkado, Tomoyuki Tanaka, Tomohiro Yanagi and Azusa Yokogoshi, 45-56, Eichosha Phoenix, Tokyo.

- Ibaraki, Seishirou (2010d) "On the Distribution of Genitives in the History of English: With Special Reference to the Development of -'S," *English Linguistics* 27, 329-344.
- Ishikawa, Kazuhisa (1995) "A History of *Not*: The Change from a Phase to a Head," *English Linguistics* 12, 197-221.
- Kemenade, Ans van (1987) *Syntactic Case and Morphological Case in the History of English*, Foris, Dordrecht.
- Koike, Takeshi (2006) "The History of the Genitive Case from the Old English Period Onwards," *English Language and Linguistics* 10, 49-75.
- Kroch, Anthony (1944) "Morphosyntactic Variation," *CLS* 30 vol. 2, 180-201.
- Kroch, Anthony (1989) "Reflexes of Grammar in Patterns of Language Change," *Language Variation and Change* 1, 199-244.
- Kume, Yusuke (2009) "On Double Verb Construction in English: With Special Reference to Grammaticalization," *English Linguistics* 26, 132-149.
- Lightfoot, David W. (1979) *Principles of Diachronic Syntax*, Cambridge University Press, Cambridge.
- Longobardi, Giuseppe (1994) "Reference and Proper Names," *Linguistic Inquiry* 25, 609-665.
- Lyons, Christopher (1999) *Demonstratives in Interaction: the Emergence of a Definite Article in Finnish*, John Benjamins, Amsterdam.
- Matushansky, Ora (2002) *Movement of Degree/Degree of Movement*, Doctoral dissertation, MIT.
- Mitchell, Bruce (1985) *Old English Syntax*, Vol. 1, Clarendon Press, Oxford.
- Mustanoja, Tauno F. (1960) *A Middle English Syntax*, Société Néophilologique, Helsinki.

- Nakao, Toshio (1972) *Eigoshi II* (History of English II), Taishukan, Tokyo.
- Newmeyer, Frederick J. (1998) *Language Form and Language Function*, MIT Press, Cambridge, MA.
- Norde, Muriel (1997) "Grammaticalization versus Reanalysis: the Case of Possessive Constructions in Germanic," *Papers from the 12th International Conference on Historical Linguistics*, ed. by Linda van Bergen and Richard M Hogg, 211-222, John Benjamins, Amsterdam.
- Norde, Muriel (2006) "Demarcating Degrammaticalization: the Swedish S-Genitive Revisited," *Nordic Journal of Linguistics* 29, 201-238.
- Norde, Muriel (2009) *Degrammaticalization*, Oxford University Press, Oxford.
- Ohmura, Mitsuhiro (1995) "Eigoshiniokeru Zokukakufuyosi no Hensennitsuite (On the Change of Genitive Case Assigner in the History of English)," *Kindai Eigo Kenkyu* 11 (Studies in Modern English 11), 47-62.
- Ono, Shigeru and Toshio Nakao (1980) *Eigoshi I* (History of English I), Taishukan, Tokyo.
- Osawa, Fuyo (2000) "The Historical Emergence of DP in English," *English Linguistics* 17.1, 51-79.
- Osawa, Fuyo (2003) "Syntactic Parallels between ontogeny and phylogeny," *Lingua* 113, 3-47.
- Osawa, Fuyo (2007) "The Emergence of DP from a Perspective of Ontogeny and Phylogeny: Correlation between DP, TP and aspect in Old English and First Language Acquisition," *Nominal Determination; Typology, context constraints, and historical emergence*, John Benjamin, Amsterdam.
- Panagiotidis, Phevos (2000) "Demonstrative Determiners and Operators: the Case of Greek," *Lingua* 110, 717-742.



- Pintzuk, Susan (1999) *Phrase Structures in Competition: Variation and Change in Old English Word Order*, Garland Publishing, New York.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London and New York.
- Rissanen, Matti (1999) "Syntax," *The Cambridge History of English Language*, Vol. III, 1476-1776, ed. by Roger Lass, 187-331, Cambridge University Press, Cambridge.
- Ritter, Elizabeth (1988) "A Head-Movement Approach to Construct-State Noun Phrases," *Linguistics* 26, 909-929.
- Rizzi, Luigi (1990) *Relativized Minimality*, MIT Press, Cambridge.
- Roberts, Ian (1993) *Verbs and Diachronic Syntax: A Comparative History of English and French*, Kluwer Academic Publishers, Dordrecht.
- Roberts, Ian (2007) *Diachronic Syntax*, Oxford University Press, Oxford.
- Roberts, Ian and Anna Roussou (2003) *Syntactic Change: A Minimalist Approach to Grammaticalization*, Cambridge University Press, Cambridge.
- Rosenbach, Anette (2002) *Genitive Variation in English: Conceptual Factors in Synchronic and Diachronic Studies*, Mouton de Gruyter, Berlin.
- Rosenbach, Anette (2007) "Emerging Variation: Determiner Genitives and noun Modifiers in English," *English Language and Linguistics* 11, 143-189.
- Rosenbach, Anette and Letizia Vezzosi (2000) "Genitive Construction in Early Modern English: New Evidence from a Corpus Analysis," *Stability, Variation and Change of Word-Order Patterns over Time*, ed. by Rosanna Sornicola, Erich Poppe and Ariel Shisha-Halevy, 285-307, John Benjamins, Amsterdam.
- Rowlett, Paul (2007) *The Syntax of French*, Cambridge University Press, Cambridge.
- Schibsbye, Knud (1965) *A Modern English Grammar*, Oxford University Press, London.

- Sobin, Nicholas (2002) "Determiners in Genitive Constructions," *Lingua* 112, 597-618.
- Scott, Sary-John (2002) "Stacked Adjectival Modification and the Structure of Nominal Phrases," *Functional Structure in DP and IP*, ed. by Guglielmo Cinque, 91-120, Oxford University Press, Oxford.
- Speas, Margaret (1994) "Null Argument in a Theory of Economy of Projection," *University of Massachusetts Occasional Papers in Linguistics* 17, 179-208.
- Strang, Barbara M.H. (1970) *A History of English*, Methuen, London.
- Sweets, Henry (1953) *Sweet's Anglo-Saxon Primer*, 9th edition, revised throughout by Norman Davis, annotated by Yoshio Higashiura, Senjo, Tokyo.
- Taylor, John R. (1996) *Possessive in English: an Explanation in Cognitive Grammar*, Clarendon Press, Oxford.
- Thomas, Russel (1931) *Syntactic Process Involved in the Development of the Adnominal Periphrastic Genitive in the English Language*, Doctoral dissertation, University of Michigan.
- Travis, Lisa (1984) *Parameter and Effects of Word Order Variation*, Doctoral dissertation, MIT.
- Traugott, Elizabeth Closs (1972) *A History of English Syntax: A Transformational Approach to the History of English Sentence Structure*, Holt, Rinehart and Winston, New York.
- Watanabe, Akira (2004) "Indeterminates and Determiners," *Proceedings of WAFL1 : Workshop in Altaic Formal Linguistics*, ed. by Aniko Csirmaz, Youngjoo Lee and Mary Ann Walter, 390-405, MIT Press, MA.
- Watanabe, Akira (2009) "A Parametric shift in the D-system in Early Middle English: Relativization, Article, Adjectival inflection and Indeterminates," *Historical Syntax and Linguistic Theory*, ed. by Paola Crisma and Giuseppe Longobardi,

- 358-374, Oxford University Press, Oxford.
- Wood, Johanna L. (2003) *Definiteness and Number: Determiner Phrase and Number Phrase in the History English*, Doctoral dissertation, Arizona State University.
- Wood, Johanna L. (2007) "Demonstratives and Possessives: From Old English to Present-Day English," *Nominal Determination: Typology, Context Constraints, and Historical Emergence*, ed. by Elisabeth Stark, Elisabeth Leiss and Werner Abraham, 339-361, John Benjamins, Amsterdam.
- Yamamoto, Keiko (1989) "The Historical Development of Determiners: A Parametric Approach," *English Linguistics* 6, 1-17.
- Yamamura, Shuto (2010) "The Derivation of Adjectives Used as Nouns in the History of English," *English Linguistics* 27, 344-363.
- Zribi-hertz, Anne (1997) "On the Dual Nature of the 'Possessive' Marker in Modern English," *Linguistics* 33, 511-537.

## ***Corpora***

- Kroch, Anthony, Beatrice Santorini and Lauren Delfs (2004) *The Penn-Helsinki Parsed Corpus of Early Modern English* (PPCEME), University of Pennsylvania, Philadelphia.
- Kroch, Anthony and Ann Taylor (2000) *The Penn-Helsinki Parsed Corpus of Middle English, Second edition* (PPCME2), University of Pennsylvania, Pennsylvania.
- Smet, Hendrik De (2005) *The Corpus of Late Modern English Texts* (CLMET), University of Leuven, Belgium.
- Taylor, Ann, Anthony Warner, Susan Pintzuk and Frank Beths (2003) *The*

*York-Toronto-Helsinki Parsed Corpus of Old English Prose* (YCOE), University of York, York.

*The Collins Wordbanks Online* (Collins)

## ***Dictionary***

*The Oxford Dictionary of the English Language* (OED) (2nd ed.).