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Carola Trips

Lexical Semantics and Diachronic Morphology

The Development of -hood, -dom and -ship in the History of English

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List of Abbreviations and Acronyms

A	Adjective
achiev.	achievement
B	Base
BNC	British National Corpus
BT	Bosworth & Toller
DCE	Dictionary of Contemporary English
demonstr.	demonstrative
DM	Distributed Morphology
DOE	Dictionary of Old English
dyn.	dynamic
ENE	Early Modern English
ENHG	Early New High German
F	French
GG	Genitive + Genitive
GD	Genitive + Dative
GA	Genitive + Accusative
GVS	Great Vowel Shift
IDE	Indo-European
LEME	Lexicons of Early Modern English
LF	Logical Form
l	listed
M	Meaning
+/- mat.	+/- material
ME	Middle English
MED	Middle English Dictionary
MHG	Middle High German
ML	Middle Latin
ModE	Modern English
ModG	Modern German
N	Noun
nl	not listed
NN	Noun + Noun
nonvol.	nonvolitional
ODEE	Oxford Dictionary of English Etymology
OE	Old English
OHG	Old High German
OS	Old Saxon
OTeut.	Old Teutonic
PPCEME	Penn-Helsinki Parsed Corpus of Early Modern English
PPCME2	Penn-Helsinki Parsed Corpus of Middle English 2
PG	Proto Germanic
Pl.	Plural
Sg.	Singular
T	Token
YCOE	The York-Toronto-Helsinki Parsed Corpus of Old English Prose
YCP	The York-Helsinki Parsed Corpus of Old English Poetry

1 Introduction

> Ye knowe eek that in forme of speche is chaunge
> With-inne a thousand yeer and wordes tho
> That hadden prys now wonder nyce and straunge
> Us thinketh hem: and yet they spake hem so
> And spedde as wel in love as men now do.
>
> *Chaucer, Troilus and Criseyde, Prologue to Book II*

It is a standard assumption of historical change that many of the morphological elements we find today are derived from originally independent words. For example, the Modern English (ModE) suffix *-hood* used to be the free morpheme *hād* 'office, rank, status, person' in Old English (OE) which functioned as nominal head in a syntactic phrase and could be modified by a preceding nominal genitive or an adjective:

(1) þæt hē þǣr onfenge **ærcebiscopes hāde**.
that he there received archbishop's office

(Bede_3:21.248.11.2540)

(2) … Þætte Cynred Mercna cyning & Offa Eastseaxna cyning on [[$_{\text{Dat}}$
that Cynred Mercians' king and Offa Eastsaxon king in
[**munuclicum**] **hādum**] to Rome becom, …
monastic rank to Rome came

(BedeHead:5.24.12.137)

On its way to becoming a bound element *hād* was used as the second element of compounds. Thus, a syntactic collocation developed into certain types of compounds (Noun + Noun and Adjective + Noun), and due to the frequent occurrence of this pattern the second element *hād* was gradually reanalysed as a derivational suffix building abstract nouns (see also Anderson 1992). This development is an instance of morphologisation, where a syntactic structure loses its syntactic properties and develops into a morphological structure. The word formation rules for derivations with the suffix *-hood* in ModE are a reflex of that syntactic structure (see Trips 2006). With his quite radical statement "Yesterday's syntax is today's morphology" Givón (1971) was one of the first linguists working within the framework of generative grammar to point out that the internal structure of morphological complexes derives from syntactic structure, thus clearly placing great importance to the historical development of language. The insight that the synchronic state of a language is the result of a complex interplay between universal principles and historical developments of language has only recently been established in modern linguistics. If language is surveyed from this point of view, phenomena of language change can provide cues to the internal structure of language systems and contribute to develop an adequate theory of linguistic structure.

Surprisingly, in the field of generative morphology this insight has been neglected for a long time (much longer than in the fields of phonology, syntax and semantics). The questions and problems that have received the most attention in generative morphology in the

last years are what formal realisations must be assumed for morphological categories (morphemes, words), which constructs have to be assumed in a morphological module and if and to what extent these constructs interact with each other (Borer 1988, Roeper 1988, Toman 1988, Anderson 1992, Lieber 1992, Borer 1998, Plag 1999, Bauer 2001, Ackema & Neeleman 2001). As noted above, these questions and problems were predominantly explored from a purely synchronic perspective. From a diachronic perspective, the focus lies on the following questions: what happens to morphology through time, or more explicitly, what can change in the morphological component, where does morphology come from, which are the factors triggering change in the morphology? Although diachronic word-formation has a long tradition in the study of English and a number of traditional studies exist (see Martin 1906, Koziol 1972, Carr 1939, Jespersen 1942, Kastovsky 1976, Kastovsky 1982, Bammesberger 1984, Kastovsky 1992, Sauer 1992, Faiß 1992), not much attention has been paid to the diachronic study of word-formation so far. The studies cited here predominantly survey some aspects or some isolated phenomena of word-formation or merely list types of word-formation without giving a detailed description and analysis of the development of these types (Sauer is the exception here). What does not exist is a current, comprehensive study of English word-formation from a diachronic and synchronic perspective within the generative framework. The only comprehensive, synchronic study of word-formation that considers the diachronic perspective in some respects is Marchand's (1969) excellent work *Categories and types of present-day English word-formation*. Since it surveys compounding and derivation under both the synchronic and the diachronic perspective, it also considers the development of suffixes discussed above. Marchand is one of the few authors who explicitly deals with this development, albeit only briefly.

According to Marchand there are two ways in which a suffix may come into existence: 1) the suffix was once an independent word but no longer is one; 2) the suffix has originated as such, which usually is a result of secretion. In English, most of the native suffixes building abstract nouns developed from free morphemes into derivational suffixes via a stage where these elements acted as heads in compounds. The process of this development is illustrated here with OE *hād* (Proto-Germanic (henceforth PG) **haidu-z*), Middle English (ME) *hōd* and ModE *-hood*:

(3)	free morpheme	→	compound	→	derivative
	OE *hād*		ME *child hōd*		ModE *childhood*

This process presents a situation where an autonomous word gradually develops into a bound word with the function of deriving words. It has been assumed (e.g. Ramat 2001) that these elements gain grammatical character, and thus fall under Meillet's (1912: 131) definition of grammaticalisation: "[...] l'attribution du caractère grammatical à un mot jadis autonome". The question then is how the grammatical character of a derivational suffix can be defined and whether this development falls under the same kind of grammaticalisation process that results in grammatical forms like, e.g., clitics. In more general terms, the question is whether this process is a case of grammaticalisation in Meillet's terms or whether it has to be defined differently. In the wealth of literature on grammaticalisation (see e.g. Hopper 1991, Traugott & Heine 1991, Pagliuca 1994, Lehmann 1995 Hopper & Traugott 2003) it has also been claimed that derivational affixes are different from grammatical affixes because they have a function on the word-level only. Hopper & Traugott (2003: 58) suggest that the development of suffixes is an instance of lexicalisation because "the effect seems to be primarily on the lex-

icon, not the grammar, [...]". Before we can decide whether the development of suffixes is a process of grammaticalisation, lexicalisation, or other, we need to understand the difference between grammatical and lexical categories. According to Lehmann (2002: 14), "lexical" (category) refers to having a specific, concrete meaning. In contrast, "grammatical" (category) refers to having an abstract, functional meaning. According to these definitions *green*, *ball* and *house* are lexical items because they have lexical content and describe things, actions, and qualities. This term refers to word classes such as the main lexical categories noun, verb, adjective and adverb, which are also an open class because new words can be added. In contrast, *the of* and *it* are grammatical items because they have the function to indicate relationships between words, to link sentences, and to indicate whether entities in a discourse have already been identified. This term refers to word classes like auxiliaries, prepositions, conjunctions, determiners and pronouns. They are also called closed-class items because they consist of finite sets of words which can be exhaustively listed, and they do not admit new members. Although this distinction appears to be clear-cut at first sight, it is sometimes not so clear where to draw a boundary, or whether there is a boundary at all. In Government & Binding theory for example, prepositions are lexical, in theories of grammaticalisation they are grammatical. Moreover, the class of prepositions does not seem to be homogeneous, some prepositions appear to be more lexical/grammatical than others (*of* is grammatical: *The painting of the artist*, *with* is more lexical: *I am writing with a pen*). Although sometimes it is not clear whether an element belongs to the class of grammatical or lexical items, a distinction with respect to meaning and function makes sense nevertheless, because it cannot be denied that some elements are (more) grammatical and others (more) lexical. Therefore, it seems to be justified to draw a distinction between processes of grammaticalisation and lexicalisation. If we try to assign the development of derivational suffixes to either one of these processes, we find, as noted above, that in the literature there is no agreement. According to Ramat (1992: 558f) the development of Old High German (OHG) *haidus* into Middle High German (MHG) *-heit* is a "fine example of grammaticalisation" just like the development of OE *dōm* into ModE *-dom*. In line with Ramat, Hopper & Traugott (1993: 130f) cite ModE *-hood*, *-dom*, *-ly* as examples of reanalysis which lead to the creation of new, productive affixes and claim that French *-ment* is a "straightforward instance of grammaticalisation" because a new grammatical formative develops from a formerly autonomous word. The assumption that derivational affixes are grammatical formatives is problematic, and the problem arises from the formal distinction made between category-changing and non category-changing suffixes that leaves aside the semantic properties of these elements. It will be shown in chapters 4 and 6 that it is exactly the semantics that has to be taken into account to gain an adequate analysis of this development. There are also a number of authors who assume this development to be an instance of lexicalisation. Lehmann (1989: 12) for example notes that the development of OHG *haidus* into MHG *-heit* is the development of "ein ehemaliges Lexem zum Derivationsaffix" and therefore a case of lexicalisation. Blank (2001a: 1602) sees OE *hād* 'state of N' into ME *-hood* 'collectivity of individuals in state of N', and late Latin *mente* 'in that manner (ablative)' into French (F) *-ment* as instances of lexicalisation because new affixes develop that may become productive in derivational processes. According to Brinton & Traugott (2005: 32), the development of derivational suffixes includes the processes of compounding and the process of derivation. Since both processes are ordinary processes of word-formation they can be subsumed under lexicalisation because new lexical items come into being. At this point, we are confronted with another problem, namely the definition of lexicalisation. In the

literature, the definitions of this process are far from clear and often incompatible because the process is seen both from a synchronic and diachronic perspective. What is more, even within the diachronic perspective incompatible definitions can be found, depending on the field of linguistics (word-formation or grammaticalisation) that has dealt with this phenomenon (see also Brinton & Traugott 2005: 20f). Synchronically, lexicalisation refers to the coding of conceptual categories (Talmy 2000, Jackendoff 2002). Diachronically, we find intuitive definitions where the term refers to adoption into the lexicon: "[...] a process by which new linguistic entities, be it simple or complex words or just new senses, become conventionalized on the level of the lexicon" (Blank 2001b: 1603) or "In a simple way of speaking, we may say that grammaticalisation pushes a sign into the grammar, while lexicalisation pushes it into the lexicon." (Lehmann 2004: 13). Another type of definition stresses the result of this process, namely that a lexicalised form can no longer be accounted for by regular grammatical rules: "[...] a lexeme takes on a form which it could not have if it had arisen by the application of productive rules" (Bauer 2002: 48). What these definitions nevertheless have in common are the following aspects: 1. they define a process by which elements become permanently incorporated into the mental lexicon of speakers, 2. the process they define affects elements which have the properties of lexical items (see above), 3. the process they define may result in idiosyncrasies at least on the phonological, morphological and semantic level. In the following, I will use the term lexicalisation defined on the basis of exactly these three aspects, i.e., whenever I claim that an element is lexicalised it has the property that it is part of the mental lexicon, that it is a lexical item and that it is prone to idiosyncrasy. Coming back to the definitions given above, and to their assignment to the development of suffixes, we need to consider two processes: the process of compounding and the process of derivation. It was noted above, that Brinton & Traugott (2005: 32) both processes are ordinary processes of word-formation which can be subsumed under lexicalisation because new lexical items come into being. This definition comes closest to Blank's and Lehmann's definitions the latter of which clearly states where the outcome of the process is located. Since derivational suffixes, at least those investigated here, develop from lexemes and hence reach the status of a new lexeme used to form new words, they are part of the lexicon and result from lexicalisation. What has also been shown in the literature on grammaticalisation and lexicalisation is that they have a number of factors in common like e.g. morphologisation/fusion, reanalysis, coalescence, and metonymisation (Lehmann 2004, Brinton & Traugott 2005). The development illustrated with the examples in (1) and (2) and described in (3) shows a stage of fusion or morphologisation. The outcome of the development is an element that can be used to build new word-formations. A prerequisite for this process is the repeated use of syntactic constructions that gradually turn into morphological complexes losing lexical autonomy. In our case it is the frequent use of a modifying noun or an adjective with a head noun that leads to morphologisation. Although it has been noted that suffixes come into being via this process, there is no empirical study investigating this process in the history of English. Moreover, processes of grammaticalisation and lexicalisation have so far predominantly been explored by looking at structural changes, often completely ignoring the semantic aspects of these developments. Since lexical units bear meaning, and since meaning is a substantial part of words and of the speaker's use of words, it is plausible to assume that the semantic change of word meaning will shed light on the pathways of grammaticalisation and lexicalisation. Hence, the investigation of the development of suffixes presents a field of study where a number of crucial questions for morphological theory arise: 1. What is the structural and semantic dif-

ference between compounds and derivations? 2. What is the trigger for the development from free morpheme to bound morpheme? 3. Is the lexical-semantics of these elements responsible for this development? 4. How can lexical units (simplexes and complexes) be adequately described in a lexical-semantic framework by taking into account the diachronic perspective? 5. Is this development an instance of grammaticalisation or lexicalisation, or does it show that this distinction is not needed? The aim of this book is to describe and analyse the development of suffixes building abstract nouns in Modern English to gain new insights into these questions. We will explore the nature of morphological complexes, especially the difference between compounds and derivations and we will see that frequency and productivity play an important role in defining and demarcating both types of word-formations. It will also be shown that it is the semantics that allows elements to develop into suffixes, i.e., it is the trigger for this change. A lexical-semantic approach accounting for this change is needed and will be introduced in this book.

The organisation of the book is as follows: Chapter 2 presents a discussion of criteria found in the literature to define compounds and derivatives (suffixes). This discussion will serve to obtain a number of formal and semantic criteria (those criteria that have been discussed most prominently in the literature) that will be used to determine the status of *-hood*, *-dom* and *-ship* during their development from free to bound morpheme. Since frequency and productivity are phenomena also playing a role in word-formation and hence also in the development of elements of word-formation, in chapter 3 both phenomena will be discussed from a synchronic and diachronic perspective, and a criterion (relating to productivity) to demarcate compounding from derivation will be proposed. In chapter 4 the criteria obtained in chapter 2 and 3 will be applied to the data. More precisely, the development of *-hood*, *-dom* and *-ship* will be traced through the several stages of English by conducting an empirical investigation with the largest annotated diachronic corpora available at present, for Old English, Middle English, Early Modern English and Modern English. The process of morphologisation will reveal that syntactic phrases have properties different from morphological phrases, that word-formation is not a part of syntax and hence a lexical account is needed to adequately analyse this process (see also Trips 2006). Chapter 5 deals with the so-called rivalry of suffixes. A semantic analysis will be presented for the nominal and adjectival bases occurring with the three suffixes and it will be shown that the alleged rivalry of these formations in ModE can be explained with the diachrony of the once free elements. Based on the findings from chapter 4 and 5, chapter 6 presents a lexical-semantic analysis (based on Lieber, 2004) of the suffixes and formations with these suffixes by taking into account the diachronic perspective. Hence, my analysis presents a new account of the lexical semantics of morphological complexes. Chapter 8 summarises my findings and draws a final conclusion.

2 The development of suffixes

2.1 Introduction

In this chapter I will give an overview of the literature dealing with the development of suffixes. Although there is a wealth of literature on the classification of morphological elements like words, morphemes, compounds, suffixes and the like there is not much to be found that describes the development of these elements from a diachronic perspective. Thus, the linguist trying to investigate this matter is almost completely left alone. Whereas nineteenth-century linguistics with its mainly historical orientation paid quite a lot of attention to morphological issues, they are almost absent in the literature on current morphology. This matter reflects the status morphology has as a field of research in modern linguistics. The question of why morphology is neglected will not be discussed here, but the reader should keep this in mind in the following, because this fact bears on the organisation of this chapter. First, traditional nineteenth-century works on morphology will be discussed before these observations will be compared with those found in the current literature. In this way, I hope to attain a formal and semantic description of the development of suffixes and of the several stages of this development, that will serve as a tool to describe the diachronic data in chapter 4.

2.1.1 From free to bound morpheme

One of the few linguists who dealt with the development of suffixes explicitly is Hermann Paul (1995). In his famous *Prinzipien der Sprachgeschichte* he devotes a whole chapter to the development of word formation and inflection (chapter 19). Although his work dates from 1880 and reflects the traditional nineteenth century framework, many of his observations are still valid and the reader is sometimes surprised by his modern (structuralist) assumptions. This also applies to his insights into the development of suffixes and that is why his observations will be discussed here.

First, Paul notes when investigating the development of new word-formations and inflections that there are three ways in which "etymologische Wortgruppen" (etymological word groups), as he calls them, can develop from single words that stand in no relation with each other. One is, according to Paul, the "normal" development of all form, compounding. He notes that this type of word formation is very common in the Indo-European languages and claims that compounds develop "durchgängig aus der syntaktischen Aneinanderreihung ursprünglich selbständiger Elemente" (1995: 326) (from syntactic concatenation of originally independent elements). There are many patterns of compounding, e.g., the combination of the genitive with the governing noun as in German *Hungersnot* 'famine', or the combination of the attributive adjective with the noun as in German *Edelmann* 'noble man'. Paul further assumes that the transition from a syntactic entity to a compound is gradual and that therefore no strict, clear-cut demarcations can be observed. In the following Paul tries to define some factors to distinguish between a syntactic entity and a compound. He claims that a prerequisite for this development is the interpretation of the underlying syntactic entity of a com-

pound as a uniform concept meaning that the determinant has only a non-referential, generic, interpretation and not a referential one as is the case with syntactic phrases. Here, Paul mentions a semantic criterion that is also used in modern classifications (see Meyer 1993, Demske 2001). He illustrates this criterion with the comparison of the compound *Mannesmut* ('man's-courage') and the syntactic entity *des Mannes Mut*. In the former case *Mannes* can only have a non-referential interpretation whereas in the latter case it has a referential interpretation, emphasised by the definite article *des*. Another criterion more crucial for the development (he actually calls it "das eigentlich Entscheidende für die Entstehung eines Kompositums") is isolation. Paul claims that the development depends on the fact that the element as a whole has to be isolated in some way compared to the elements it is composed of. The level of isolation needed for compounds to develop cannot be defined in general terms. However, it seems to be clear that isolation of meaning as well as isolation of form are relevant here. In the following Paul deals with the process of isolation during which compounds are built. The first step is that the syntactic entity gains a meaning that is different from the meaning of the single elements it is composed of. We could say that the Principle of Semantic Compositionality (or Frege's Principle[1]) is violated. The result is that the single elements as such are not recognised any more which also affects the form of the entity. In this way the entity becomes isolated semantically and formally (the latter includes phonological and syntactic aspects). As concerns syntactic isolation, Paul observes that as soon as the syntactic entity is isolated to a certain degree it does not allow inflection "in the middle of the entity" any more (what he means here is that the first element of the compound must not be inflected any more). Further, he observes that at this stage new words can be built in analogy to the pattern the compound shows (one example would be German *Hausfrau* ('house-wife') built in analogy to *Hausmann* ('house-man'); see also below). With respect to semantic isolation Paul discusses syntactic phrases where the head noun is preceded by an adjectival, genitival or other attribute. He notes that the conjunction of attribute and noun gains a richer and more specific meaning than the elements in isolation, i.e., in a syntactic phrase. Here, one salient meaning of the attribute semantically defines the whole element and thus does not show all the meanings it has in a syntactic phrase. Paul gives a plethora of examples, one being French *man age* which denotes a certain period of time (era) but this specific meaning is not contained in the attribute as such (compare German *Mittelalter* or English *Middle Ages*). If we further trace the development of compounds evoked by syntactic isolation we observe that with respect to the pattern $\text{Noun}_{\text{genitive}}$ + Noun this development only takes place when the genitive precedes the head noun. Paul claims that isolation does not occur with post-nominal genitives since in this case inflection would occur word-internally. Moreover, he notes that this pattern exhibits the same stress pattern as real compounds[2] (to illustrate this point he gives the Old High German (OHG) *táges stèrro* = *tágostèrro*, as opposed to *stérro des táges* "day star"). This would be another formal criterion on the prosodic level. Another observation of Paul that might serve as a further structural criterion is the use of the article in these constructions. He mentions that in older stages like OHG we frequently find the $\text{Noun}_{\text{genitive}}$ + Noun construction without an article, and he claims that this construction served as a pattern for new constructions of the same type. As concerns the construction Adjective + Noun Paul claims that at least for German the uninflected use of the adjective paved the way for the fusion of adjective

[1] In the literature, it has been noted that it is not so clear that the principle can be attributed to him. For a thorough discussion see Pelletier (2001) and (2004).

[2] Paul refers to the IDE. type of Noun + Noun compound.

and noun. He illustrates this with examples like Middle High German (MHG) *(ein) edel man* "(a) noble man" (if this applies also to the corresponding forms in OE will be investigated in chapter 4) and suggests that a number of Adjective + Noun compounds developed in this way and served then as pattern for analogical formations. This pattern became so productive that Adjective + Noun compounds were even built in those constructions where the adjective still showed an inflectional ending (e.g., *Langeweile* "boredom", *Blindekuh* "blind man's bluff").

In § 238 Paul discusses phonological changes resulting in isolation. He observes that those changes separating the compound from the simplex word also separate different compounds with the same simplex (as first or second element) as part of the compound which results in the fact that the simplexes the compound is composed of lose their autonomy. Unfortunately, he does not give examples here. Another aspect that is crucial for this development is according to Paul the fact that one of the elements disappears as simplex (e.g., the OHG noun *gumo* occurring in *Bräutigam* ('groom') has disappeared). As noted above, the operation of analogy can also be assumed in the development of suffixes. At the stage where the syntactic entity has become isolated due to the semantic and formal criteria discussed above we can speak of compounds. And it is at this stage that compounds may serve to build analogical forms under the condition that the compound pattern is productive. Paul (1995: 346) expresses this point as follows: "Die Lebendigkeit des Gefühls für die Komposition zeigt sich besonders in der Fähigkeit eines Kompositums, als Muster für Analogiebildungen zu dienen." He claims that many of the nominal compounds are built in analogy, evidence of this assumption would be the genitive *-s* inserted in compounds like *Regierungsrat* ('government-councillor') that originally do not have it (the grammatical genitive form is *der Regierung Rat*). Paul describes the last stage of the development as follows:

> Wird die Grenze überschritten, bis zu welcher das Kompositum dem Sprachgefühl noch als solches erscheint, so macht das Gebilde, von den eventuellen Flexionsendungen abgesehen, entweder den Eindruck vollkommener Einfachheit oder den einer mit einem Suffix oder Präfix gebildeten Ableitung. (Paul 1995: 346, §239)

Here, words that once were compounds like *Wimper* (OHG *wint-brawa*, 'eyelash') are analysed as simplexes by the speaker[3], and the final syllable in words like *Nachbar* (MHG *nachgebur*, 'neighbour') is analysed as a derivational ending as *-ung* in *Rechnung* ('bill'). Paul states

> Hier sind wir beim Ursprunge der Ableitungssuffixe und Präfixe angelangt. Dieselben entstehen anfänglich stets so, dass ein Kompositionsglied die Fühlung mit dem ursprünglich identischen einfachen Worte verliert. (Paul 1995: 347, §240)

What this means is that in our case the head of the compound cannot be identified as the original simplex word it once was (e.g., ME *-hōd* in *kinghōd* is no longer identified as the free morpheme *hād*). According to Paul, this is a necessary condition for suffixes to develop. Another condition is that the other element, the determinant, can still be etymologically associated with other related words. Further, the "suffix" has to occur in many words and always with the same meaning. If these two conditions hold then new words can be formed according to this pattern.

Paul (1995: 347) suggests another crucial condition affecting the meaning of the "suffix":

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[3] In the literature, former morphological complexes that are analysed as simplexes due to their semantic and phonological opaqueness are also called obscured compounds ("verdunkelte Komposita" in German), see e.g. Faiß 1978.

> Es muss dann aber drittens noch die Bedeutung des betreffenden Kompositionsgliedes entweder schon im Simplex eine gewisse abstrakte Allgemeinheit haben (wie Wesen, Eigenschaft, Tun) oder sich innerhalb der Komposition aus der individuelleren, sinnlicheren des Simplex entwickeln.

Thus, the abstract meaning of the head noun is an important aspect in this development. Paul cites the PG **skauniz haiduz* schöne Eigenschaft' ('beautiful property') that developed into OHG *sconheit* 'Schönheit' ('beauty'). The head noun *haiduz* disappeared as simplex and could in virtue of its abstract meaning develop into a suffix.

Paul further notes that as soon as words are formed in analogy that could not exist as compounds there is evidence that the second element has turned into a suffix. Thus, words like *fruchtbar* ('fertile') or *wunderbar* ('splendid') still show the original meaning of *-bar* ('tragend, bringend' ('bearing'); the same is true of the OE cognate). But in *magetbāre* "jungfräulich" ('maiden') or *meienbāre* "zum Mai gehörig" ('belonging to May') the connection to this original meaning has been lost. Paul (1995: 348) notes

> Vollends entschieden ist der Suffixcharakter, wenn die Analogie zum Hinübergreifen in ganz andere Sphären führt wie in *vereinbar* [...], die nur als Ableitungen aus *vereinen* [...] gefasst werden können.

What he means by "ganz andere Sphären" (completely different spheres) is that at this stage the suffix can take bases of categories other than nominal ones. In the case of the suffix *-bar* we originally find only nominal bases, or better, a nominal determinant. As soon as the second element *bar* has developed into a suffix verbal bases appear. In general, Paul claims that the "nominal derivation" is the starting point in the development of suffixes and that derivations with verbal bases of the same suffix are a diagnostics for its status as a suffix.

Concluding, Paul observes that there is a correlation between the rise of new suffixes and the demise of old ones. He defines the latter ones as those that no longer build new formations. The explanation for this correlation is determined by the need to substitute the old suffix (weakened in form and meaning) for the new one that is characterised by a full form and clear meaning. Schema 2.1 (p. 10) presents a summary of Paul's semantic and formal criteria:

Messing (1917a and b) also discusses some interesting aspects of the development of suffixes. In his study on the German suffix *-schaft* (cognate of ModE *-ship*) he presents some interesting observations pertaining to the development of this suffix. In line with Paul's assumptions he postulates the following prerequisite for the development of a suffix:

> Die ältesten *scaf*-Zusammensetzungen müssen, wenn in ihnen *-scaf* nomen actionis sein soll, zurückgehen auf syntaktische Verbindungen mit "schaffen", die als Einheit empfunden, daher substantiviert werden können. (Messing 1917a: 189)

This implies that the occurrence of syntactic constructions with *schaffen* ('create') as verb and a preceding noun is a prerequisite for the occurrence of compounds of the type Noun + *-scaf*. He further stresses this point by noting

> Läßt sich zu mehreren -scaf. Zuss. noch die entsprechende syntaktische Verbindung nachweisen, so ist auch da, wo nur das Kompositum belegt ist, das *Ansetzen* einer entsprechenden Verbindung berechtigt, ja notwendig, um das Auftreten der Analogie zu klären. (Messing 1917a: 189)

Thus, even if only the compound is proven to exist for some combinations, the occurrence of the syntactic constructions in the other combinations suffices to assume that this is the

Underlying syntactic entity Prerequisite: underlying syntactic entity of compound has a uniform concept (determining element has a non-referential interpretation) ⇓ **Compound**		
Semantic criteria	**Formal criteria**	
	Phonological	**Syntactic**
Isolation • Violation of Principle of Semantic Compositionality • Salient meaning of attribute	Isolation • Syntactic phrase and Noun + Noun compound • Same stress pattern	Isolation • Loss of inflection • Omission of article • Analogical formations • Simplex disappears
⇓ **Suffix**		
• Abstract meaning	• Loss of relation to free element	• Simplex cannot be identified as such • Determinant is still etymologically associated with other related words • Occurrence of "suffix" in many words • Other categories as bases

Table 2.1: *Formal and semantic criteria in the development of suffixes (Paul: 1880)*

first stage of the development of the suffix *-schaft*. He illustrates this assumption with the OHG compound *wini-scaf* (OE *wine-scipe*) with the meaning 'Freundschaffung' (literally 'friend making') and the coexisting syntactic construction *sich einen (zum) Freund machen* ('to make friends') evidence of which is the existence of OHG *wini-scaffender*. The same applies to compounds like OHG *vriuntscaf* (OE *frēond-scipe*) 'friendship' or *bruoderscaf* (OE *brōðorscipe*) 'brothership'. Messing's observation describes the beginning of the development of suffixes like *-schaft*, OE *-scip* and others, and therefore seems to serve as a further formal criterion. In chapter 4.4 we will come back to his study.

In her paper "Zur Typologie der Suffixentstehung" Stein (1981) presents a typological classification of French, English and German on the basis of the development of suffixes. She uses Coseriu's theory of word-formation the terminology of which unfortunately is more than confusing and not very helpful. She also notes that although the development of suffixes is mentioned in several works on word-formation it is hardly ever discussed comprehensively. For English she notes that there are three different types of the development of suffixes: 1. formations like *dolldom* developed from a "spezifische Komposition" (specific composition) into a "generische Komposition" (generic composition). What is referred to here is the development whereby the composition of two bases develop into a composition of one true base as first element and one element that cannot be identified with an existing base in the language; 2. formations like *falsehood* developed from a "spezifische Komposition" into a "Entwicklung" (development). What is meant with the term "Entwicklung" is that during the process of formation the category of the input is changed (from adjective to noun in this case); 3. for-

mations like *beggardom* developed from a "spezifische Komposition" into a "Modifikation" (modification). The term "Modifikation" defines a homogeneous process since the category of the input is not changed (*beggar* is a noun and so in the whole formation *beggardom*). Apart from the aforementioned fact the terminology lacks clarity and is confusing, e.g., it is entirely unclear why *dolldom* exhibits a development different from *beggardom*: both have a noun as first element and *-dom* as second element, and both are non-category changing. Moreover, the typology is predominantly based on formal aspects like categories, lexemes, etc. However, as will be shown in this book, it is the semantics that predominantly determines the development of suffixes.

In his invaluable work Sauer (1992) discusses the rise of nominal compounds in Early Middle English (EME). He notes that two crucial questions have to be answered: 1. which criteria do we find to demarcate syntactic phrases from (nominal) compounds; 2. what is the relation between compounding and affixation. With respect to the latter point he notes that both processes show similarities and that is why it is so hard to demarcate them from each other. This applies to the development of those suffixes arising from elements that were used as second elements in (nominal) compounds (e.g., *-ful*, *-dom* etc.). As concerns the former point Sauer states that in ModE it is not easy to determine whether a complex form is a (nominal) compound or a syntactic phrase (showing the same elements), and this uncertainty is reflected in inconsistent stress patterns and spelling variants. This point is also reflected in the theoretical literature, because we find highly diverse assumptions on this aspect. The only property assumed consistently for compounds is the property of being isolated somehow as opposed to syntactic phrases. Criteria found in the literature to determine isolation are spelling, stress, morphological shape, morpho-syntactic and semantic structure (see also above) but it has turned out that none of these criteria alone serves to describe and determine (nominal) compounds adequately. In the next section on the nature of compounds Sauer's assumptions on these criteria will be discussed in detail.

Although Paul is the only one thoroughly describing the development of suffixes there is, as mentioned above, a plethora of literature on the nature of compounding and suffixation. In order to attain a list of criteria for the analysis of the diachronic data as extensive as possible, these works will be discussed in the following before a final list of these criteria is suggested.

2.1.2 The nature of compounds

Jespersen (1942: 134f) provisionally defines compounds as "a combination of two or more words to function as one word, as a unit". Citing Brugmann (1900) he notes that isolation, which could be defined as "a difference in sense from that held by a free combination of the same elements", has always been considered as being one crucial semantic factor. He claims, however, that it would be better to have a formal criterion too, a good candidate of which would be the occurrence/non-occurrence of inflection. Jespersen gives the following Old English examples:

(1) a. *heahfæder* 'high father'
b. *heahne fæder* 'high$_{\text{Acc}}$ father'

The a. example has the status of a compound because the element as a whole shows accusative case whereas the b. example has the status of a phrase since the adjectival modifier shows the

accusative case ending *-ne*. He further notes that this criterion can of course not be applied to ModE which is illustrated with (2):

(2) a. blackbird
b. black bird

Another criterion Jespersen considers is stress. According to Bloomfield (1935) stress can well define compounds because "wherever we hear lesser or least stress upon a word which would always show stress in a phrase, we describe it as a compound-member". Thus, *ice-cream* with primary stress on the first noun and secondary stress on the second noun (level-stress in Bloomfield's terms) is a compound whereas *ice cream* with primary stress on the first and second element is a phrase, although there is no difference in meaning (and therefore, meaning cannot be a criterion). Jespersen notes that this assumption is problematic, however, because many such combinations which have always been attributed to the class of compounds would have to be refused like *stone wall*. Moreover, sometimes two nouns can be combined with different stress patterns but then differences in meaning are observed:

(3) a. glass-case (level-stress; 'to keep a glass in')
b. glass case (primary stress on first and second element; 'made of glass')
(Bauer 2002: 103)

This implies that, on the one hand, stress is not a clear-cut criterion and that, on the other hand, meaning plays a role here. Jespersen concludes that formal criteria (like stress and inflection) fail to define compounds - at least in ModE – and that we have to take into consideration semantics. He suggests that we can speak of a compound "if the meaning of the whole cannot be logically deduced from the meaning of the elements separately" (1942: 137). The question then is why speakers prefer to use compounds instead of free syntactic combinations of the same elements. Jespersen claims that the merit of compounds lies in their conciseness (e.g., *a railway-company* as opposed to syntactic phrases , e.g., 'a company running a railway'). Further, compounds express a relation between two objects or notions but it is not at all clear what that relation is. It must be inferred from the context and thus leaves room for many different interpretations. If they become established in the vocabulary of a language they lose their polysemous status. These elements build a class of unproductive compounds as opposed to productive ones that still have the semantic capacity of being interpreted in different ways.

Another work that must be mentioned here is Marchand (1969). In his book *The categories and types of Present-Day English Word-Formation* he gives the following definition for a compound : "When two or more words are combined into a morphological unit on the basis of a determinant/determinatum relation we speak of a compound" (1969: 11). He assumes that the principle of compounding arises from "the natural human tendency to see a thing identical with another one already existing and at the same time different from it". He illustrates his assumption with the example *steamboat* where the identity is expressed by the determinatum *boat* and the difference by the determinant *steam*. For him, linguistic elements on the basis of a determinant/determinatum relationship are syntagmas and as such they should also be defined in grammatical terms. Thus, grammatically speaking, the determinatum is the element which is dominant because it can stand for the whole syntagma. This relation is the "morphologic structure" of a compound based on the syntagmatic pattern "determinatum determined by determinant" (Marchand 1969: 54). In line with the "sentential source hypothesis" of word-formation (Lees 1960) Marchand claims that composites,

being syntagmas, must be explainable from an underlying sentence whose syntactic relations they reflect. He calls this underlying grammatical relationship "grammatical deep structure". Thus, the word combination *dining room* is explainable from the sentence '(we) dine in the room'. The underlying grammatical relationship assumed here is closely tied up with its semantics, i.e., the syntactic relations between elements like predicate-object, subject-predicate are largely predicted by the semantic content of the constituent morphemes. Here, types of reference and selectional patterns of information come into play. In compounds with a verbal element like *apple eater* the underlying sentence ('(we) eat apples' with the grammatical parts of the sentence subject, object, verb) are known and therefore each type of reference indicates which part of the sentence functions as determinatum of the compound. Compounds lacking a verbal element can have two types of underlying sentences, the copulative sentence ("A is B" where A is the subject and B the predicative) and the rectional sentence (which contains a verb that governs the other element by the principle of rection). Although this classification seems to be clear-cut and seems to cover all possible cases, Marchand notes that

> [...] these descriptions are not complete. The semantic element of the compound [...] must also be stated, insofar as they are typical. The semantic additions clearly lie outside the syntactic structure expressed by the underlying verbal nexus and the information concerning the type of reference states only that one definite part of the sentence becomes the determinatum of the compound. The specific lexical meaning of the compound is embedded in neither and must therefore be explained from the compound at its surface level.[4]

Apart from the morphological structure, the grammatical deep structure and the reference type of compounds, Marchand also discusses the criterion of stress. He argues against Jespersen's assumptions and claims that stress should be maintained as a criterion, but only for certain types of compounds. Here, the condition that the compound be morphologically isolated from a parallel syntactic group has to be fulfilled. Thus, the morphophonemic stress pattern in *bláckbìrd* signals morphological isolation whereas the double stress in *bláck márket* signals phrasal status. In these cases stress is a criterion according to Marchand. However, he admits that there are exceptions, e.g., compounds with participles as second element like *mán-máde*. They must be considered compounds because their first elements could syntactically never act as modifiers. The same applies to the type *grass green*. In these cases, the grammatical conditions seem to overrule the prosodic conditions.

Marchand further assumes that the morphological status of all Noun + Noun compounds is established by the morphophonemic stress pattern (Marchand also calls it forestress), and this pattern is tied up with the semantic structure underlying a compound (the copulative and the rectional type). Examples like *stóne wáll*, on the other hand, show a syntactic phenomenon which Marchand calls transposition, because in these cases "any substantive may be used to determine another substantive, thereby being transposed from the position of head [...] to that of modifier [...]". With respect to this type he further notes that the grammatical relation between A and B, where B is the underlying subject and A is the underlying predicate, determines the nature of the composition as two-stressed syntactic group. This assumption also explains why Noun + Noun compounds with morphophonemic stress all have rival types in two-stressed syntactic combinations. Hence, special semantic relations between two elements A and B determine its permanent lexical relation whereas a mere syntactic relation is expressed in two-stressed syntactic groups. A *súmmer-hòuse* is not just a house inhabited in

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[4] This assumption is also discussed in, e.g., Fanselow (1981).

the summer time but also a house with special properties (style, construction) that make it suitable for inhabiting in summer. A *súmmer résidence* is just somebody's residence in the summer, nothing more. For Marchand, this implies that as soon as one substantive is determined by another denoting time or space the whole element has to be defined as syntactic group.

Finally, Marchand claims that another, external, factor that determines forestress in Noun + Noun compounds is frequency. He suggests that second elements occurring quite frequently give compound character to combinations with such words (*milkman, policeman, postman*). Forestress of these compounds is due to implicit contrast, so the examples with *-man* as second element given here show primary stress on the first element to distinguish the combination from others of the same series.

From Marchand's clear distinction between true Noun + Noun compounds and two-stressed syntactic phrases it could be concluded that stress is indeed criterial. Lutstorf (1960: 154) makes another distinction between compounds with different stress patterns. He calls those with main stress on the first element "fast compounds" and those with double stress "loose compounds". However, he comes to the conclusion that

> there is now a large, and probably growing, class of compounds that have no fixed stress pattern. In all such cases it depends entirely on the speaker's judgement whether he prefers to regard a compound as loose or fast.

Faiß (1978) agrees with Lustorf that stress is not criterial and lists three criteria to define compounds (where the head is a noun): First, in line with the sentential-source hypothesis he assumes that underlying determiners must be deleted at surface structure. This is illustrated with the following example:

(4) a. we draw the bridge
b. draw bridge vs. *drawthebridge (Faiß 1978: 24)

Second, independent of the stress pattern, modifications pertaining to the surface structure refer to the whole compound AB and not only to one part (A or B):

(5) a thick [blǻck bìrd] (Faiß 1978: 24)

So the adjectival modifier *thick* in (5) refers to the whole compound *blackbird* and not only to one of its parts *black* or *bird*. Therefore, modifying adverbs are not allowed:

(6) a. *an extremely blǻck bìrd (compound)
b. an extremely blǻck bírd (sentence) (Faiß 1978: 24)

The third criterion Faiß suggests is a semantic restriction that could be described as a higher level of specificity compounds have as opposed to syntactic phrases. Thus, the *White House* is not merely a white house in the general sense but a specific building in Washington, and the *black market* not a black market in the general, original sense. This higher grade of specificity does not allow adverbial modification as shown in (5). Moreover, syntactic consequences arise because it does not permit substitution of one modifier for the other: *black* in *black market* cannot be substituted for *common* etc. without changing the meaning of the whole complex (and also its status as compound). This, however, is clearly possible in syntactic phrases. This criterion could also be explained with semantic compositionality: in the cases

listed by Faiß it is not possible to define the meaning of the whole compound by defining the meaning of its parts. It also seems to be clear that processes typical of semantic change like metaphorisation and metonymisation play a crucial role. We will come back to this point in chapter 5. Faiß concludes that if these criteria are met then the complex is a nominal compound, if not, then it is a syntactic phrase.

Apart from defining criteria for compounds, Faiß (1978: 28) also tries to give a classification. He distinguishes several reference types:

1. subject type: example *shipowner* 's.o. owns a ship.'
2. predication type: example *sunrise* 'The sun rises.'
3. object type: example *drawbridge* 's.o. draws the bridge.'
4. adverbial complement type: example *whetstone* 'we whet with this stone.' (here instrumental)

It should be kept in mind that this classification is based on the assumption that compounds are derived transformationally from sentences. Although this assumption is outdated in several respects it may still give some insights into the nature of compounds. Therefore, we will come back to this classification in chapter 4.

In line with Faiß, Bauer (2002) notes that in the literature there has been much debate whether stress can really be seen as a criterion to define compounds. The assumption underlying Marchand's (and others') classification is that a given speaker will be consistent in assigning a stress pattern to a given compound. That is, it is assumed that a speaker who uses compounds like *tea cup* or *headmaster* with a certain stress pattern on one occasion will also do so on other occasions. Moreover, it is further assumed that this consistency is found not only in the individual speaker but in an entire speech community. Finally, the assumption that stress is criterial is based on another assumption, namely the pronunciation of the compound in isolation. If it is embedded in an utterance, it is likely to exhibit different stress patterns for a number of reasons. First, Bauer mentions contrast (as Marchand actually also does). So, in compounds like *únderwriter* and *úndertaker* we find primary stress on the first syllable. However, in a sentence like

(7) *Are we talking about the undertákers or underwríters now?*
(Bauer 2002: 103)

stress is likely to be on the second elements, *taker* and *writer* to emphasise the contrast. Moreover, it can be observed that there is a stress shift in compounds of the type Adjective + Noun depending on whether the adjective is used attributively or predicatively. Thus, the adjective in the examples below changes its stress pattern:

(8) a. *She was wearing a péacock blue dress.*
b. *Her dress was péacock blúe.* (Bauer 2002: 103)

Apart from these observations, it has been shown by a number of studies that speakers, either in actual use or in experiments, are not consistent in assigning stress to compounds. Speakers pronounce the same compound with different stress patterns on different occasions, and,

moreover, there is disagreement with respect to the "right" stress pattern of compounds between speakers of a speech community. What has been said so far considerably weakens the assumption that stress is a criterion. In the following, it will be shown that according to Bauer single and double stressed compounds cannot be distinguished from one another, nor is there a semantic difference between these types of compounds that could function as a criterion here. To illustrate this let us look at the following examples from Bauer:

(9) a. *bánkrate*.
b. *bánk hóliday*.

(10) a. *gárden party*.
b. *gárden cíty*.

(11) a. *stríp-show*.
b. *stríp póker*. (Bauer 2002: 104)

Contra Marchand, Bauer assumes that both the a. and the b. examples are compounds, because they behave alike with respect to the following criteria: a) positional mobility, b) interruptibility, c) internal stability[5]. This is shown with the following examples:

a) Positional mobility

(12) a. *The wíng commánder saw the stríp-show*.
b. *The stríp-show was seen by the wíng commánder*.

b) Uninterruptability

(13) a. *líbrary book vs. *líbrary boring book*.
b. *cíty óffice vs. *cíty big óffice*.

c) Internal stability

(14) a. *ármchair (order AB), cháir-arm (order BA)*.
b. *gárden cíty (order AB), cíty gárden (order BA)*.

Therefore, he concludes that stress is not a criterion for distinguishing between compounds and syntactic phrases, and that there are single stressed and double stressed compounds the latter of which present a subgroup of compounds and show a lexically conditioned stress pattern.

As mentioned above, Sauer (1992) is a comprehensive description, classification and analysis of compounds in EME. Since his work is also diachronic in nature he discusses differences between the classification of ModE compounds and OE and ME compounds. One of the criteria proposed to determine the status of compounds is stress as we have seen above. This is a criterion that can be dealt with (more or less satisfyingly) in ModE but it is sometimes quite hard to do so with diachronic data. How problematic this classification is can be seen in the Oxford English Dictionary (OED) and the Middle English Dictionary (MED):

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[5] These criteria are standardly assumed to judge the wordness of an item; according to Marchand the a. examples would have to behave more word-like than the b. examples.

compounds either occur as main entry (only few cases) or they occur subsumed under the entry of the first or second element (most cases). Apart from linguistic criteria the criterion of frequency of occurrence is taken to decide whether a compound appears with its own entry or not. According to Sauer, it is not always clear which criterion is decisive, and sometimes even different classifications are found for the same element in the OED and MED. Moreover, it is not clear when an element is classified as "compound" or as "compounds and combinations" or "compounds and phrases". Especially in the OED we find a general classification of the first elements as attributes implying that the complex elements are not compounds but syntactic phrases. Sauer notes that the criteria proposed in the literature have to be applied to the diachronic data to gain a more consistent picture of these elements in OE and ME. The first criterion he discusses is spelling. For ModE we find many inconsistencies, and that is why this criterion has the weakest force to determine compound status. This applies to OE and ME to an even higher degree: Although we find spelling in separate words, sometimes it is hard to decide whether a scribe wrote two elements as one or not since the spacing between words or letters was not very regular at that time. And although the hyphen is an element known by OE scribes it is not used very often. Moreover, the criteria to separate words from each other were different from today: in a number of studies it was found that writing was determined by prosodic criteria like stress. In his study, Sauer found different tendencies (not rigid rules) showing that spelling, more precise the separation of words from each other, was not regular in OE and ME times and that therefore spelling is not a criterion that can be applied to determine the status of compounds in OE and ME.

Apart from spelling, Sauer discusses stress as a further criterion. As concerns stress in OE and ME he notes that theoretically matters are more straightforward since it can be assumed that most types of nominal compounds showed compound stress (primary stress on the first element). He gives the following reasons for this assumption:

1. Clear evidence for phrasal stress in nominal compositions is available only as late as ENE

2. In OE and ME a number of completely lexicalised compounds started to arise; the second element lost secondary stress and was phonologically reduced

3. In his study on four ME alliterating poetic texts, Tamson (1898) has shown that almost all nominal compounds showed compound stress

Although a number of studies have also shown that compounds sometimes show primary stress on both elements (especially in alliterating poetry) they still have the status of compounds. In general the criterion of stress is hard to determine for diachronic data and is therefore one that is less important in defining compounds.

Apart from these criteria Sauer (1992: 75) discusses a morpho-syntactic criterion also mentioned above, the criterion of loss of inflection, or as he calls it "nicht flektiertes Erstelement" (non-inflected first element). He notes that this criterion is crucial for the type Adjective + Noun and Noun + Noun to distinguish between syntactic phrases like OE *mid wildum deorum* 'with wild animals' or *þære wiccan cræft* 'the witch craft' and compounds like OE *mid wilddeorum* or *se wiccecræft* (just as it is in Modern German (ModG) to distinguish between *Wildwasser* 'wild water' and *wildes Wasser* etc.). Due to the well-known loss of inflection in the history of English this criterion only holds for ME to a limited degree. This applies also

to the criterion of agreement, in Sauer's terms "Bezug von Artikel, Pronomina und Adjektiven". Thus, a case like *þine nesche childes limes* shows agreement between the modifiers *þine*, *nesche* and the complex *childes limes* and has to be analysed as compound with the meaning 'our limbs which are tender like a child's limbs' (and not 'the limbs of your tender children'). In some texts, like *Layamon's Brut* we find deviations between different hands that are reflexes of the OE article declination. Thus, in the C hand *bi þere sæ brimme* 'by the sea shore' would have to be a syntactic phrase since *þere* agrees with and refers to *sæ*, whereas in the O hand *bi þan see brimme* the article *þan* agrees with *brimme*. These deviations could also well show the transitional stage during which syntactic phrases develop into compounds (especially since they occur quite frequently).

Coming back to the example *þine nesche childes limes* we find a Noun + Noun complex that shows the genitival ending *-es* on the first noun. Since it is a morphological inflection marking genitive case we would have to assume that complexes like *childes limes* are syntactic phrases where *-es* still has a grammatical function. However, we have also seen above that the modifiers only agree with the second part of *childes limes* and that semantically they refer to *limes*. Thus, when interpreting these elements it is crucial to distinguish between syntactic phrase and compound. Sauer notes that for most cases in OE and ME the genitival relation between the first noun (with *-(e)s* ending) and the second noun holds, and therefore the *-(e)s* element has to be analysed as genitive morpheme[6]. Due to the breakdown of the inflectional system in EME complexes where the first element shows an *-e* ending occur that could be the original inflectional element, a gender marker or a kind of linking morpheme. Sauer notes that these cases are hard to determine. We will come back to this problem in chapter 4.

Finally, Sauer deals with semantic criteria to determine the status of compounds. In line with Paul (1995), Jespersen (1942) and Marchand (1969) he states that a compound is semantically isolated, it shows a lack of semantic compositionality. For him, semantic isolation is tantamount to lexicalisation or idiomatisation. One example would be the EME syntactic phrase *leof mon* dear man'[7] and the compound *leof-mon* with a lexicalised meaning 'lover'. As with the other criteria discussed above, Sauer states that this criterion cannot in general serve to distinguish syntactic phrases from compounds for the following reasons: 1. semantic isolation is gradual, and often it is not clear when semantic isolation starts; 2. there are compounds that are not semantically isolated (e.g., EME *chirche-song*); 3. there are also semantically isolated syntactic phrases (e.g., EME *witte-sunnedai* 'Whitsunday'). Sauer concludes that compounding is a complex phenomenon that can only adequately be described if a number of criteria from all levels of language are taken into consideration (see also Kastovsky 1982, Lipka 1983).

Plag (2003b) defines a compound as a modifier-head structure where the head is the most important unit modified by the other member of the compound. What we have so far defined as the relation between determinatum and determinant is defined here in more modern terms under Williams' (1981b) Right-hand head rule:

(15) In morphology we define the head of a morphologically complex word to be the right-hand member of that word. (Williams 1981b: 248)

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[6] There are some exceptions like *almes-mon* 'bedesman' where the *-s* is part of the base.

[7] Sauer notes that in OE sermons we often find *leofe men* 'dear folks' with a transparent semantic meaning.

As shown above, the compound as a whole inherits most of its semantic and syntactic information from its head implying that plural marking and other marking occurs on the head. Plag also discusses elements like

(16) *jack-in-the-box*

He notes that it behaves like a word because it can take an article, can be modified by adjectives and it can be pluralized. However, it has also characteristics of a syntactic phrase: first, it lacks the right-hand head (it is neither a kind of *box* nor a kind of *jack*), and it has a PP at the right and not at the left which is required for compounds including syntactic phrases as one member. Moreover, it resembles the structure of an English noun phrase with a post-nominal PP (cf. *(the) fool on the hill*). Thus, Plag concludes that *jack-in-the-box* is a lexicalised phrase stored as such in the mental lexicon.

With respect to the question of whether stress is criterial Plag makes the distinction between "nuclear stress" and "phrasal stress", both of which are defined as "stress is on the left-hand member of a compound" and "stress is on the last word of the phrase". This distinction was also made by the linguists mentioned above but they named the phenomenon differently (Marchand for example talks about elements with forestress vs. two stressed elements). Plag further notes that there are exceptions to the rule like

(17) a. *apple píe*
b. *Madison Ávenue* (Plag 2003b: 138)

that seem to be compounds but show the stress on the last element (see also discussion above). According to Plag these exceptions can be explained semantically because it is possible to define subclasses of compounds like copulative compounds or compounds with the meanings 'temporal' (summer night), 'locative' (Boston márathon), 'made of' (silk tíe) etc. This argument is weakened, however, because it is not clear how many such semantic classes have to be assumed. Plag further argues, however, that another aspect plays a role here: the rightward stress pattern is often triggered by analogy to other combinations with the rightward element. But this can only happen if these elements are stored in the lexicon as a whole unit which is expected of lexical elements but not of phrases. Therefore, Plag concludes that stress is a criterion to define compounds (see also Aronoff & Fudeman 2005) because those adhering to rightward stress rule present a systematic exception to the otherwise prevailing compound stress rule.

Booij (2005) notes that the demarcation of compounds from phrasal expressions is not an easy task. First, phrases can have the same function as words, to name a certain category. Second, they sometimes look similar because compound patterns often derive historically from phrases (he is the only one in the modern literature who refers to the diachronic aspect in this context). One criterion to distinguish between compounds and phrases is according to Booij the absence/presence of agreement. He illustrates this point with the following examples from German and Dutch:

(18) a. *Rótkohl* 'red cabbage'
b. *ròde kóol* 'red cabbage' (Booij 2005: 82)

The German example is of the type Adjective + Noun because the adjective *rot* is not inflected (compare with the phrase *ein ròter Kóhl*). The Dutch example shows an NP with an adjective as modifier because here *rode* agrees with the noun in gender, number and definiteness.

Thus, word-internal constituents cannot be affected by syntactically conditioned rules such as agreement, and therefore the absence of agreement can be regarded as a criterion to define compounds. For Booij, another criterion is stress. He notes that in (Modern) English this is the only criterion to distinguish compounds from phrases since there is no inflection of the kind demonstrated for the German and Dutch examples. Thus, *blackbòard* is considered a compound (with compound stress) whereas *blàck bóard* is considered a phrase (with phrasal stress). It should be stressed that this systematic contrast applies to compounds of the type Adjective + Noun but not to the type Noun + Noun (see also below).

A further observation Booij makes is that we find a potential functional equivalence of compounds and phrases of the type Adjective + Noun.

(19) a. *atom bomb*
b. *atomic bomb*
c. *city parks*
d. *urban parks* (Booij 2005: 82)

Here, the adjective *atomic* and *urban* in (19) b. and d. are (denominal) relational adjectives. They can only be used in attributive position (*urban parks* but not *parks that are urban*) to determine the noun, and as such they function like Noun + Noun compounds. However, formally, they are phrases because main stress is on the noun. Moreover, in languages like German, they show agreement inflection on the attributive adjective:

(20) a. *Die schulische Leistung von ihm ist gut.*
b. *Die schulische**n** Leistung**en** von ihm sind gut.*
c. **Die Leistungen sind schulisch.*
d. *Die Leistungen, die er in der Schule bringt, sind gut.*

The contrast between (20) a. and b., which could be literally translated as 'The schoolish performance(s) of him is/are good', shows that the adjective agrees with the noun in case, number and gender. *Schulisch* in (20) c. cannot be used predicatively, and d. shows that it can be paraphrased with the noun *Schule*. Thus, apart from stress, we also find agreement on the adjective as criteria for phrasehood. In chapter 4 we will come back to relational adjectives and the role they play during the development of suffixes like *-hood*, *-dom* and *-ship*.

Another phenomenon showing the problem of demarcating phrases from compounds are genitive compounds like ModE *women's magazine* or *Down's Syndrome*. Booij notes that these compounds must be considered phrases since they contain the internal inflectional suffix or clitic *-s*. However, they also behave like phrases in that many of them have compound stress (*Dówn's Syndrome*) and function as lexicalised syntactic pattern to create new labels. Therefore, Booij considers them to be idiomatic patterns or constructional idioms. He defines these idioms as "a fixed syntactic pattern in which some positions may be filled by all kinds of words of the right category, whereas other positions are filled by specific morphemes or words. In this case, there is only one morpheme lexically specified, the morpheme *-s*. The two N positions are variable, and can be filled by all sorts of noun" (2005: 83). This is an interesting assumption that will be resumed in chapter 4.

Two further diagnostics for wordhood and as such relevant to define compounds are according to Aronoff & Fudeman (2005: 37) non-separability and integrity. If we take a compound like *greenhouse* and try to break up the components as in (21) a., or try to modify

one part of the compound as in (21) b., the meaning 'warm glassed-in structure for growing plants' gets lost:

(21) a. *a green and blue house*
b. *a greener house*
c. *a very green house*
d. **a very greenhouse* (Aronoff & Fudeman 2005: 38)

The unpredictable meaning of the compound is no longer available because the element is analysed as a phrase by the speaker. Note again, that this property is predominantly found with compounds of the type Adjective + Noun. Orthography, as noted by many linguists dealing with compounding, is not a diagnostics, at least not in English. There are compounds like *deer tick* that are written in two words but they also show non-separability and integrity. Further, Aronoff & Fudeman note that stress is a diagnostics, and they illustrate this with the following examples:

(22) a. *We ate two hot dogs each.*
b. *The hot dogs ran for the lake.* (Aronoff & Fudeman 2005: 38)

In (22) a. stress is on *hót* whereas in (22) b. stress in on *dóg*. Note that stress could occur on *dogs* in the first sentence, and on *hot* in the second sentence, but then the meaning of the sentence would be completely different. As discussed above, Aronoff & Fudeman also mention that although stress could be taken as a criterion to define compounds, the stress patterns may differ from speaker to speaker (for one speaker *gínger ale* is pronounced with main stress on the first element and thus a compound, whereas for another speaker it has its main stress on the last element, in which case the whole complex is a phrase).

So far, we have discussed a number of criteria that were suggested to define compounds, or more precisely, to make a distinction between words and phrases. Most of these criteria were discussed in all of the works mentioned here implying that they are taken to be solid criteria. To summarise, the following criteria serve to define compounds (wordhood): From a diachronic perspective we can use the criteria from Paul (see the table again), from a synchronic perspective we can use the following formal criteria: no word-internal agreement marking, non-separability, integrity, compound stress; as concerns the semantics it has been noted that compounds of the type Adjective + Noun tend to have an unpredictable meaning that cannot be analysed compositionally. This, however, is not a general property of nominal compounds, semantically they can be fully transparent. What can be said is that compounds may lose their transparency and become semantically opaque but in most cases formal and phonological changes are a concomitant of semantic changes (e.g. *husband*, etc.). Next, we will discuss the nature of suffixes to obtain further criteria.

2.1.3 The nature of suffixes

According to Marchand (1969: 209) a suffix "[. . .] is a bound morpheme which in a syntagma AB occupies the position B. It thus is the determinatum of a syntagma whose determinant is a simple or composite free morpheme." An example for the former type of syntagma is *fatherhood*, an example for the latter type *colour-blindness*. He further notes that these types

of elements should be called derivations as opposed to those whose determinata are free morphemes, as in *steamboat* which he terms morphological extensions, or expansions, a subclass of compounds. For Marchand, the process of derivation is "the transposition of a word to the role of determinant in a syntagma where the determinatum is a dependent morpheme" (1969: 13). He further notes that, opposed to prefixes, suffixes are the grammatically and semantically dominant element in a suffixal derivation. Thus, in words such as *fatherhood* and *fatherly* the word *father* merely determines what is essentially a '*-hood*' or '*-ly*' respectively. This implies that for Marchand the semantics of a suffix is the most important aspect because it defines the whole word. Another aspect that seems to be important for Marchand is the distinction between suffixes and endings. He makes a difference between derivative and grammatical morphemes and illustrates this difference with the words *citizens* and *citizenry*. Morphologically, both words are created after the same principle 'root plus affix'. Conceptually, the two words also look very similar: the *-s* as well as the *-ry* both express plurality. However, the difference between the two elements lies in the difference between grammatical function and lexical meaning. The *-s* is the inflectional ending of *citizens* expressing the grammatical category plural, whereas the *-ry* is the suffix of words like *citizenry* which forms a class of words with the semantic basis 'group, collectivity of'. Moreover, he notes that there are differences with respect to the form of derivatives and inflected words. Whereas the former is a two-morpheme word which behaves like a one-morpheme word, the latter is not. He illustrates this aspect with the following examples:

(23) a. *This citizenry feels insulted.*
b. *This citizen feels insulted.*
c. *These citizens feel insulted.* (Marchand 1969: 208)

In (23) a. *citizenry* could be replaced by one-morpheme words like *crowd* without affecting the other members of the sentence. The examples in (23) b. and c. show, however, that replacement of *citizens* would involve changes of the other members in the sentence like *this* to *these* and *feel* to *feels*. Therefore, for Marchand suffixes and endings have to be treated differently and the latter ones "do not belong in a book on word-formation" (1969: 210). In the literature, there has been an ongoing (theoretical) debate as to whether such a distinction is justified. There are a number of differences that confirm this distinction. Moreover, intuitively, it also seems to be fairly clear that there are differences between these two processes (Bauer 2002: 2.10). Therefore, in this book it will be assumed that this distinction is indeed justified and that is why inflection will be excluded here from discussion.

As concerns the origin of suffixes, Marchand notes that there are mainly two ways in which suffixes can come into existence (see above). The process that is of interest here is the one whereby the suffix was once an independent word and changed into a dependent one. The other possibility is that the suffix has originated as such, usually resulting from secretion. A further way in which suffixes may arise is that part of a word is (re)analysed as suffix by the speaker. According to Marchand (1969: 210), this happened with the suffix *-burger* as in *hamburger*. He argues, *burger* first occurred as a clipping of *hamburger* which has been taken to represent the semantics of the whole word. Then it was used in analogy for *cheeseburger* etc. He notes that the same can be observed for the elements *-furter* and *-gram*. Although Marchand presents *burger* as a clear case of the rise of a suffix, in the literature the element is not unanimously analysed as such. The OED for example makes a distinction between the noun *burger* and the "comb.[ining] form" *-burger*. The former element is defined as a "a

terminal element, e.g. in *beefburger*, *porkburger*, etc., usu[ally] denoting a roll, sandwich, etc., containing the foodstuff specified in the first element. orig. U.S." The latter element is defined as "forming nouns denoting persons characterized by the initial element." The OED gives *mouseburger* as one example which was coined by H. G. Brown in *Having it All* (1982): "10 Mouseburgers – people who are not prepossessing, not pretty, don't have a particularly high I.Q., a decent education, good family background, or other noticeable assets – can come a long way in life if they apply themselves." This example serves very well to demonstrate that the demarcation of (second elements of) compounds from suffixes is not at all an easy task and that the examples discussed in the literature are highly debatable and controversial.

As concerns the morphological bases of derivation, Marchand distinguishes between derivation by native suffixes where no changes of stress, vowels or consonants are involved (in the whole derived elements as against the basis) and derivation by means of borrowed suffixes which may involve the changes named above. Here, he further distinguishes between derivatives which show a native or non-native base. Since in this study we want to exclude all external factors that could affect word-formation processes, the latter type will not be taken into consideration[8]. With respect to the semantic properties of suffixes, Marchand argues that unlike a free morpheme, a suffix has not meaning in itself. It acquires its meaning only in combination with the base word which it transposes. Moreover, unlike a free morpheme as in *steam**boat***, a suffix as in *steam**er*** does not name the semantic class but merely implies it. Some suffixes can attach to a wide range of bases like the *-er* suffix whereas others are restricted in this respect (e.g., *-hood*). This assumption implies that during the development of suffixes from free morphemes the semantics of those free morphemes is lost. The question is if this is really the case or if some semantic properties of the once-free morpheme are retained. Marchand seems to contradict himself in also proposing that "[...] a suffix is a categorizer whose function it is to transpose a word (or word group) into another word class and/or a different semantic class from that to which the word (or the nucleus of the group) belong." Thus, there are suffixes that have two functions, to transpose the category of a word into another word and semantic class like the *-er* suffix, and then there are those suffixes that are only semantic transposers like the suffixes *-hood*, *-dom* and *-ship*. The latter type combines so as to build words denoting natural conditions of human life (*fatherhood*), or conditions which involve legal rights and duties (*nationhood*, *statehood*). But if suffixes are taken to have the function of semantic transposers on the one hand, and have no meaning in themselves on the other hand, then the question is how they manage to transpose bases semantically. Rather, it seems that suffixes have in fact a meaning in themselves especially if we take into consideration those that have developed from free morphemes. This question refers to fundamental properties of suffixes and sheds light on the nature of these elements.

According to Plag (2003b) and others, the criterion of form helps us to distinguish between a free morpheme and a suffix. Thus, an element is bound if it cannot occur on its own and an element is free if it can occur on its own. As trivial as this criterion might seem there are morphemes like *-free* or *-like* where it does not help much to define these elements formally:

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[8] However, see Stein & Trips (2008) for an interesting account of *-able* in Anglo-Norman and Middle English.

(24) a. *an error-free text*
b. *a text free of errors*
c. *prison-like school gates*
d. *school gates like a prison* (Plag 2003b: 72)

The contrast between (24) a. and b., and c. and d. show that *-free* and *-like* seem to have both properties: they may occur on their own and as the head of word-formations. Hence, the formal criterion fails and we need another criterion, the criterion of meaning. If we have a look again at the examples above we see that there are no significant differences between the two usages of *-free* and *free* and *-like* and *like* with respect to their meaning. Therefore, the free form and the head of word-formations are the same lexical item. This implies that *error-free* and *prison-like* are compounds. But what about

(25) a. *The lanes were carless, lawless.*
b. *The lanes were without cars, laws.*
c. *My granny had more influence on me education-wise.*
d. *My granny had more influence of me in terms of education.* (Plag 2003b: 72)

According to Plag, semantically the elements *-less* and *-wise* behave differently from their free variants: the bound form *-less* has the meaning 'without N' and the free form denotes the opposite of *more*. As concerns the examples in (25) c. and d. the bound form has the meaning 'in terms of N' and the free form means 'wise, clever'. Furthermore, the bound form *-less* and the free form *less* differ in pronunciation (the bound form displays the schwa sound). Since we find a significant difference in meaning we must assume that the bound and the free form are two different elements. Plag claims that this analysis is also corroborated if we consider the syntactic categories of the items: while the free morpheme *less* is an adjective, the bound form creates adjectives, and while the free morpheme *wise* is an adjective, the bound form creates adverbs. These examples seem to show that not only do the formal properties of bound forms play a role to distinguish them from their free variants but their meaning differing from the free forms also is an important criterion.

From a synchronic point of view these criteria serve well to define the status of morphemes, from a diachronic point of view we look at the synchronic state as the result of a development and take into account all processes that are part of that development. Therefore, if we investigate the form and meaning(s) of morphemes we find that in the course of time semantic and phonological discrepancies between the free and bound form occur which can be nicely illustrated with the ModG suffix *-lich*. Paul (1995: 347) notes that

> Zwischen einem derartigen Kompositum [e.g., weiblich] und dem Simplex, mhd. *lich* nhd. *Leiche* ist eine derartige Diskrepanz anfänglich der Bedeutungen, später auch der Lautformen herausgebildet, dass jeder Zusammenhang aufgehoben ist[9].

This development can be observed for a number of elements[10] like the ModE equivalent of ModG *-lich* which is the bound form *-ly* (OE *līce* 'body, corpse') and shows why discrepancies on the levels of form and meaning occur today.

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[9] "Between such a compound (e.g. *weiblich* 'feminine' and the simplex Middle High German *lich* ModG *Leiche* 'body, corps' such a discrepancy at first affecting the meanings and later also affecting the phonology has been developed that every connection is lost" (my translation).

[10] Another example would be the Modern German suffix *-bar* and deriving from OHG *beran* 'bear' and and the verb *gebären* 'give birth'.

These discrepancies can also be found for *-less* and *-wise* discussed above: First, the free form *less* and the bound form *-less* do not originate from the same word: the free form is OE *lǣsse* which is the comparative form of *lȳtel* (ModE *little*) denoting 'of not so great size, extent, degree' (see OED). The bound form *-less* on the other hand derives from OE *lēas* denoting 'devoid of, free from'. Since these two elements do not show two stages of the same development (they are just homonyms), it is not surprising that they do not denote the same. The same applies to the free form *wise* and *-wise*: The former one is a noun denoting 'manner, mode, habit' (OE *wīse*), and the latter one derives from the same noun (and not from the adjective *wise*); this becomes clear if we recall the meaning of *education-wise* 'in terms of education'. According to the OED, in OE *wīse* was used in various kinds of adverbial expressions denoting 'in such-and-such a manner, way, or respect', in which it was modified by an adjective or a noun with or without a governing preposition (OE *on nāne wīsan* 'in no way'). The prepositional "flavour" of these phrases actually explains their use as adverbials.

Although the perspective is, of course, different in synchronic and diachronic approaches, both the formal and the semantic criterion are adequate criteria to define the status of morphemes. This can finally be illustrated with data from Booij (2005). He observes that sometimes the distinction between compounds and derivatives is not an easy task because words may develop into derivational morphemes. One such example is the Dutch noun *boer* 'farmer':

(26) a. *groente-boer* 'lit. greens farmer, green grocer'
b. *melk-boer* 'lit. milk farmer, dairy man'
c. *sigaren-boer* 'lit. cigars farmer, cigar seller'
d. *tijdschriften-boer* 'lit. magazines farmer, magazine seller' (Booij 2005: 85)

In the examples (26) a. and b. *boer* still has the original meaning of 'farmer' because farmers sell products like vegetables and dairy. Today, however, these words are also used to refer to persons who do not produce these goods themselves. Thus, in the c. and d. examples *boer* is also used with products which are originally not produced and sold by farmers. Here, the word *boer* rather has the meaning of 'seller' indicating that it has developed into a suffix. Booij assumes that elements like *boer* which still correspond to a free element should be classified as affixoids. It should also be noted that Booij uses the criterion of meaning to distinguish between the head of a compound and a suffix, in the same way as Plag does. So, if a change in meaning between the still existing free morpheme and the element which is part of a morphological complex can be observed, then we can assume that the respective element has developed into a bound form, a suffix.

Before we turn to the discussion of the phenomena frequency, productivity and creativity, a note on the terminology used in this book is in order. It is a well-known fact that in the morphological literature terms like "root", "stem", "base", "affix" and "semi-affix" are found and defined in various ways which leads to a lot of confusion. This is partly due to the different morphological structures of languages. Since this study deals with the English language with the goal to trace the development of elements from free to bound status via compound status the formal criterion is relevant. Therefore, I will use the terms "free morpheme" and "bound morpheme" as well as the term "base" for elements that are part of compounds and part of derived words (or derivatives) because in my opinion they are the least biased terms available. It will become evident that there are stages in the history of English where the status of morphological complexes is hard to determine, i.e., whether they have the status of

compounds or derivatives. In these cases I will use the term "formations". It has also become clear in this chapter that the demarcation of head of compound and head of derivation is not an easy task and that each stage of the development has to be defined on the basis of formal and semantic criteria. In the literature the term of semi-suffix has been suggested by Marchand (1969: 357) who defines this type of elements "[...] midway between full words and suffixes. Some of them are used only as second-words of compounds, though their word character is still clearly recognizable" (in German the terms "Affixoid" and "Suffixoid" are the equivalents). This definition is not very useful since it is restricted to "some of them" (what about the others then?) and since the differences between elements functioning as head of compounds, semi-suffixes and suffixes seem to be minimal and not properly definable. The adequacy of this category has also been questioned in the literature and a number of convincing arguments have been put forward to do without this term (see e.g. Höhle 1985, Olsen 1986, Schmidt 1987, Schippan 2002). It will be shown that in a diachronic study it is hard enough to determine the stage where elements function as head of compounds and the stage where they function as suffixes, a further category with undefinable properties is not helpful here at all, it will lead to confusion. Therefore, I will not use the term.

2.2 Conclusion

In this section we have dealt with a number of criteria for defining suffixes which are frequently discussed in the literature. In chapter 4 we will apply these criteria along with the criteria for compounds and for the development of suffixes from free morphemes to the diachronic data for *-hood*, *-dom* and *-ship* from the historical stages of English. Before discussing the data, we will deal with frequency and productivity in the next chapter because they are phenomena highly associated with compounding and derivation.

3 Frequency, productivity and creativity

3.1 Introduction

The development described here – from head of a syntactic phrase (status free morpheme) to suffixal head of derivation (status bound morpheme) – shows a process during which new word-formation elements arise. In chapter 1 we briefly discussed whether this process is an instance of grammaticalisation or lexicalisation and for the time being decided that it falls under the latter type of process. Since this process or development thus affects word-formation (be it an autonomous model or not) we would say that it is a diachronic phenomenon pertaining to word-formation. Whenever we talk about word-formation we almost always also talk about productivity (at least synchronically) that seems to play an important role; at least this assumption is found in the plethora of literature on this topic.

It has been noted that productivity is hard to define. Below I give some statements illustrating this:

> We see productivity as a morphological phenomenon as the possibility for language users to coin unintentionally an in principle unlimited number of new formations, by using the morphological procedure that lies behind the form-meaning correspondence of some known words.
> (Schultink 1961: 113)

> Produktivität zählt zu den unklarsten Begriffen der Linguistik.
> "Productivity is one of the most opaque concepts in linguistics." (Mayerthaler 1981: 124)

> Productivity is a feature of morphological innovation. It is a feature of morphological processes which allow for new coinages, but not all coining necessarily indicates productivity. To be shown to be productive, coining must be repetitive in the speech community [...] Various factors appear to aid productivity: type frequency of appropriate bases, phonological and semantic transparency, naturalness, etc., but these are aids to productivity, not productivity itself [...]. In sum, productivity of a morphological process is its potential for repetitive non-creative morphological coining. (Bauer 2002: 98)

> The property of an affix to be used to coin new complex words is referred to as the **productivity** of that affix. (Plag 2003b: 44)

> Andere diachrone Phänomene hingegen wie der Verlust inhaltlicher und/ oder formaler Transparenz [...] oder veränderte Anforderungen an mögliche Ableitungsbasen [...] sind auf Wortbildungsprodukte beschränkt. Beide Phänomene schlagen sich unmittelbar in der Produktivität des entsprechenden Wortbildungsmodells bzw. -submodells nieder.
> "Other diachronic phenomena like the loss of semantic and/or formal transparency [...] or requirements that have been changed for possible bases [...] are restricted to word-formation products. Both phenomena immediately result in the productivity of the word-formation model or submodel in question." (Scherer 2003: 2)

The most restrictive definition is the one put forward by Plag where productivity is a property of affixes. In the other definitions presented here (and found in the literature) it is a general property of morphological processes or word-formation products, although in the literature only derivational processes are investigated (see e.g. Aronoff 1976, Plag 1999, Bauer

2001, Scherer 2003). Thus, word-formation, morphological processes and word-formation products are implicitly taken to be tantamount to derivation. But what about compounding? Since it is also clearly a process of word-formation it should also show the phenomenon of productivity. Bauer (2001) notes that there are other non-affixal word-formation processes that could nevertheless show this phenomenon but unfortunately he illustrates this with what he calls "ablaut-motivated compounds in English" such as, e.g., *chitchat, dilly dally, snip snap* and the like that are not true compounds for a number of formal and semantic reasons (and should not be called compounds at all)[1]. In his section on the domain of productivity Bauer (2001: 22f) notes that in the literature some patterns are excluded like clippings, blends and acronyms (Aronoff 1976), or more generally all words that are coined intentionally (see Schultink 1961: 113). Others (e.g. Botha 1968) define productivity as being rule-governed. Since productivity is never discussed for compounding (at least not to my knowledge) it would be a word-formation process that builds words intentionally and is not rule-governed[2].

In this context we also find the difference between productivity and creativity. If compounding, for the reasons mentioned above, does not show productivity, does it show creativity then since the two terms are used complementarily? Creativity shows a lack of predictability that is present in productivity. Thus, it may be predictable that a compound will be formed, but the precise semantic relationship between the elements it includes will not be predictable (this property of compounds is also called vagueness to which we will come back below). This is different from derivational processes like suffixation. Bauer states

> The more such predictability there is, the more general the specific statements that can be made about the pattern of innovation as a whole, and the closer the innovation is to being productivity rather than creativity. (Bauer 2001: 66)

Botha (1968: 135) makes a distinction between rule-changing creativity and rule-governed productivity. Bauer (2001: 71) explains the difference with the German word *zweisam* formed on the basis of *einsam* 'lonely' (see also Bauer 2002). The former word was coined after the pattern of the latter word, a process that is traditionally called an analogical process (proportional analogy). However, the crucial point is that this process does not give rise to a productive series (compare also the coinage of *Hausmann* 'house-man' on the basis of *Hausfrau* 'house-wife'), as it consists only of two words based on one and the same pattern or rule. The distinction becomes clear if we compare it with a formation like *cuddlesome* that shows a series of at least twenty new coinages (Marchand 1969: 347), implying that we find a difference in type (two with *-sam* vs. twenty with *-some*). Since productivity requires many new coinages, the German formations *einsam* and *zweisam* have to be excluded. Coming back to Botha's terms, Bauer assumes

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[1] It is clear that these elements do not function as compounds like *laser printer* since they are not semantically compositional and formally do not have a head. They are clearly phonologically-driven, and therefore the term "compound" is a bit misleading here.

[2] It has also been noted in the literature that both terms, "intentionally" and "rule-governed", are problematic in this context: Cowie & Dalton-Puffer (2002) claim that it is extremely difficult to define (un)intentionality, or (un)awareness (see also Plag 1999: 14) and to operationalise it as a factor affecting productivity. Moreover, productivity and intentional coining do not exclude each other; Bauer (2001: 65) notes that in the generative literature there are different ways to define rule-governedness (distinction major and minor rules), and that rule-governedness is defined in terms of productivity, which leads to circularity in argumentation.

> The creation of *zweisam* might conceivably have started a new trend, which would have been the proof that a new rule had been created. It did not, so we have no evidence of a changed rule, and so no evidence of a movement to productivity. By this analysis a minimum of three forms – the original base, the form which reanalyses it to create a new rule, and a subsequent use of the new rule – are required to prove productivity, and larger numbers provide more convincing proof. *Zweisam* remains a matter of creativity. ((Bauer 2001: 71))

Thus, the changing of a rule and the exploitation of this rule are indicators for a productive rule. As long as a formation is modelled on an already existing lexeme it is an analogical formation based on an already existing pattern without a rule change. It seems to be plausible to assume that compounds are built in this way. But as soon as a new rule is created, which may also include semantic changes (e.g., a change from a general to a more abstract meaning), and exploited it is a matter of productivity and we talk about processes of derivation (and not compounding).

As mentioned above, the development investigated in this book includes the processes of compounding and suffixation, and more precisely, a transition from a stage where an element is the head of a compound to a stage where it functions as suffixal head of a derivation. If we apply Bauer's analysis to this development we would start out with a minimum of three forms: the formation that builds the basis (starting point) of the development, the form undergoing reanalysis (which would be a new type based on a new rule) and a further formation (which would be a further new type based on that same new rule) implying that type frequency is a decisive factor here if a new type also implies a change of rules (and subsequent exploitation of the new rule). Under this assumption increased type frequency would be an indicator for the exploitation of a new rule, i.e., as soon as elements like *-hood*, *-dom* and *-ship* occurred with high(er) type frequencies they had gained suffixal status. Thus, a high(er) type frequency allows free elements to develop into suffixes. We will come back to this analysis below where it will become clear that measures like frequency and productivity are important but not the decisive factors that (solely) account for the development under investigation. Rather, in chapter 4 I will show that the decisive factor is the semantics of the elements and that a change in meaning can have effects on the frequency of occurrence of formations with these elements.

From what was said so far, for the rise of suffixes we will assume the following: 1. we expect to find both frequency and productivity; 2. the transition from formations defined by frequency to formations defined by productivity is gradual and 3. they are different phenomena with different implications/consequences. Since from a diachronic perspective the stage where frequency comes into play precedes the stage where productivity comes into play we need to discuss frequency before we discuss productivity. This assumption is also implied in Bauer's (2001: 98) statement above, where he states that type frequency (amongst others) is a factor that aids productivity. He further discusses prerequisites for productivity, including frequency, semantic coherence and the ability to build new forms. Again, from a diachronic perspective it is not surprising that these factors are prerequisites since they pave the way for developments like the rise of suffixes. Therefore, in this chapter we will begin with discussing frequency before we will move on to the phenomenon of productivity.

3.2 Frequency

As noted above, Bauer (2002: 20ff) lists three prerequisites for productivity (that are frequently mentioned in the literature): frequency, semantic coherence and the ability to build new forms. As concerns the first prerequisite, in the literature different notions of frequency are found: 1. type frequency which refers to the number of different words that occur with the morphological category under consideration. For example *brotherhood, sisterhood* and *fatherhood* are three types with the morphological category *-hood*; 2. token frequency which refers to the actual number of occurrences with the morphological category under consideration. So the token frequency of formations with *-hood* might be 55, if all occurrences with that suffix in one text is 55 (the number of occurrence of all types found with *-hood*). We have seen above that frequency cannot be equated with productivity, the relationship between the two phenomena is an indirect one. This has been demonstrated with a number of suffixes, most often with the suffix *-th* that shows few types, but high token frequencies of these types (Bauer 2002). Still, the suffix is unproductive nowadays because this suffix does not build new types.

Another relationship that has been assumed is that between frequency and markedness (Mayerthaler 1981) meaning that less marked constructions tend to be more frequent. Mayerthaler illustrates this with the suffix *-th* in *width* that he claims to be more marked than the suffix *-ness* in *wideness* because the vowel change in *width* is less constructionally iconic than the mere addition of a suffix as in *wideness*.

It has also been claimed that there is a relationship between frequency and lexicalisation. According to Aronoff (1983) lexicalised words have a higher token frequency than non-lexicalised ones. For Bauer (2002: 48) lexicalisation is "the whole process whereby an established word comes to diverge from the synchronically productive methods of word-formation" implying that all levels of language may be affected[3]. When a word is newly coined it is formally and semantically transparent. In the course of time, it may become semantically opaque, i.e., it will show a lack of semantic compositionality. In the current literature on morphological processing this relation is also found, but here it is assumed that the frequency of morphological complexes influences the way in which we process and store them (see Cutler 1981, Frauenfelder & Schreuder 1992, McQueen & Cutler 1998, Hay 2001, Hay 2003, Hay & Baayen 2002). Moreover, and most importantly lexicalisation is not defined in diachronic terms as Bauer does but in synchronic terms, i.e., it is understood as "adoption into the lexicon" (see also chapter 1). Generally, it is claimed that lexical processing shows lexical competition, and that lexical frequency is highly relevant for lexical competition. Morphologically complex words can be accessed in two ways: a direct route in which the whole word as such is accessed directly, and a decomposed route in which the word is accessed via the parts it consists of. Each incoming word is processed simultaneously along these two routes, with one route finally winning out over the other. Hay (2003: 8) illustrates this with the complex word *insane* that is processed as whole word *insane* [ɪnseɪn] and as word decomposed into its parts *in* and *sane*. In the latter case the component parts of the word are activated and used to access the lexical item. If this route wins the connection between the component parts *in* and *sane* and the derived form are strengthened. In the

[3] For a discussion of different definitions of lexicalisation see chapter 1 and Brinton & Traugott 2005.

other case, access via the whole word route will serve to strengthen the whole word status of *insane* (and since lexicalised elements have the tendency to be non-transparent, at least on the semantic and phonological level, they are prone to access via the whole word route). These processes imply that each of the elements in competition (*insane* and *in* and *sane*; also called nodes) show a resting activation level which is a function of its frequency of access. This means that elements with a high frequency have a higher resting activation and will be accessed more quickly than elements with a low frequency and low resting activation.

As concerns the processing of *insane* Hay found that the complex word *insane* occurred with a much higher frequency than the base *sane* (in the CELEX database) which implies that the whole word route wins out over the decomposed route here because the higher relative frequency of *insane* speeds this route, relative to the other route. Thus, the degree of decomposability depends on the relative frequency of the derived word and its base. Hence, Hay suggests another type of frequency which is defined as the ratio of the frequency of the derived word to the frequency of the base word; what is measured is how frequent the derivative occurs in relation to its base (see also Plag 2003a: 19). It has been observed that with morphologically complex words as *insane* the base occurs more frequently than the derived word which leads, according to what was said above, to the preponderance of access via the decomposed route. In the other case when the derived word occurs more frequently than the base it leads to the preponderance of access via the whole word route. In his study, Plag (2003a: 20) shows that the word *business* occurs with a much higher frequency than the base word *busy* (35141 vs. 4879 occurrences in the BNC) implying that in processing *business* the whole word route wins out. On the other hand, the word *blueness* shows a lower frequency than its base *blue* (10059 vs. 39 in the BNC) implying that in processing the decomposed route wins out. Plag crucially notes that *business* is semantically and phonologically opaque which often is a property of words that have lexicalised, whole word representations.

Hay (2003) further claims that low relative frequency correlates with high productivity and high semantic transparency. A characteristic of productive processes is a high number of low frequency words. Coming back to the notion of relative frequency, we can say that the derived words in productive processes show low relative frequencies. In their study, Hay & Baayen (2002) have shown that the more morphologically decomposable forms with a given affix are contained in the lexicon, the more productive that affix will be. This finding shows that there is a relationship between relative frequency, parsing and morphological productivity. As concerns the correlation between low relative frequency and high semantic transparency we must recall what we said above: complex words with low relative frequencies have a higher resting activation leading to a preponderance of the decomposed route (every time the word is retrieved the base will be accessed). The decomposed route leads to transparent semantics because every time the word is processed it is decomposed, i.e., analysed. Here, we clearly see the correlation between productive processes and transparency (see also Anshen & Aronoff 1981 and Cutler 1981). These assumptions have consequences for lexicalisation seen as a diachronic process where transparency may be lost because "a lexeme takes on a form which it could not have if it had arisen by the application of productive rules" (Bauer: 2002:48). Thus, lexicalised words are prone to opacity[4], and this can be explained by morphological processing, since lexicalised words occur with a high frequency and show a whole word bias (the constituents of the whole word are less likely to be activated and thus strengthening of

[4] Note that although opacity indicates lexicalisation, lexicalised words need not be opaque.

their semantic representation is less likely). What follows is low productivity. On the other hand, semantic transparency results from predominant processing via the decomposed route because this way of processing strengthens the semantic representation of the constituents. What follows is high productivity.

By taking into account psycholinguistic aspects like processing and parsing we have gained a picture where frequency, semantic transparency and productivity go hand in hand. Research work done in this field thus presents new insights into these phenomena and the correlations between them. In the next section we will have a closer look at productivity and especially at how it can be measured.

3.3 Productivity

At the beginning of this chapter I presented a number of attempts to define productivity. There are quantitative and qualitative aspects that have to be taken into consideration when talking about productive word formation processes: former aspects deal with frequency, the latter aspects with restrictions on the word bases that take part in word formation. In the discussion above, it became clear that productivity results from processing factors like relative frequency and parsiability, and that other, structural, factors like semantic and phonological transparency play a role. Moreover, in the literature a number of restrictions on productivity (pragmatic, structural) are discussed to gain a clearer picture of the phenomenon. I will not discuss these aspects here but restrict myself to quantitative corpus-based measures that have been suggested for gauging different aspects of the productivity of morphological processes since these have recently been applied to diachronic studies and will become important for analysing part of my data presented in Chapter 4 (for thorough and comprehensive discussions of productivity I refer the reader to Plag 1999, Bauer 2001, Scherer 2003, Plag 2003a and Baayen 2008).

Baayen (2008) notes that working with corpora has gained new insights into morphological productivity because corpora allow researchers to investigate factors relevant for productivity like variation in registers, written language versus spoken language, social and geographical factors, and time. He states

> In this emerging new theory, morphological productivity can be understood as resulting from a great many factors such as the individual language user's experience with the words of her language, her phenomenal memory capacities, her conversational skills, her command of the stylistic registers available in her language community, her knowledge of other languages, her communicative needs, her personal language habits and those of the people with which she interacts. (Baayen 2008: 5)

The measures proposed in work by Baayen (e.g. Baayen 1992, Baayen 1993, Baayen 1996 and Baayen 2008) are all defined with respect to the statistical properties of word frequency distributions. It should be noted that originally these measures were all applied synchronically not taking into account the diachronic perspective.

One of the measures Baayen suggests is called "realised productivity" of a morphological category (Baayen 2008: 6) and estimated by counting the types of its members in a corpus

with N tokens (V (C,N)). In Baayen (1993) this measure is called " extent of use" (traditionally it has been called type frequency). If it is compared with token frequency we see its importance with respect to productivity: as noted above, productive morphological categories are characterised by a large number of low-frequency forms (in a corpus). On the other hand, unproductive morphological categories are characterised by a large number of high-frequency forms since, as Baayen (2008: 12) points out, "a high token frequency protects irregular forms against regularisation and helps explain their continued existence." But according to Baayen realised productivity is only a first approximation to measure productivity because it does not take into account similarities between the different forms built by the same morphological category, and it does not yield satisfying results when different morphological categories are compared. Therefore, he suggests another measure, "potential productivity", which is obtained by estimating the hapax legomena of a morphological category in the corpus divided by the total number of tokens with that affix (P = V(1,C,N)/N(C)) where V (1,C,N) denotes the hapax legomena of a morphological category and N(C) the total number of tokens of that category in the corpus. This type of productivity is also called "productivity in the narrow sense" (see Baayen 1993)[5]. Applied to corpora, measures using hapax legomena may serve to (indirectly) estimate the rate at which a morphological category enriches the vocabulary. If a correlation between hapaxes and neologisms is assumed here (and note that a hapax is not the same as a neologism, because it is always defined with respect to a given corpus) the number of hapaxes found in a corpus is an indicator for the productivity of the morphological category in question. So, for example, in a corpus like the British National Corpus (BNC) we find ten hapaxes with *-hood*. We then investigate whether these words are listed in a large dictionary under the assumption that non-listedness implies that words have the status of neologisms. What we expect is that among the ten hapaxes we will find more neologisms than among words that occur with a higher frequency than one. This is borne out in a study by Plag (2003b) for the formations with *-able* where it is shown that the number of non-listed words with that suffix is high among hapaxes, and that therefore hapaxes can be used to measure productivity. As long as the corpora investigated are large the proportion of neologisms among the hapax legomena increases. However, in small corpora the proportion of neologisms among the hapaxes will be small, and it is likely that in most cases hapaxes are rare words in the language and not newly coined ones. This point is problematic for diachronic corpora since they are relatively small (see discussion below).

To sum up, we have seen that productivity can be measured in different ways: 1. by measuring the type frequency (realised productivity). The higher the type frequency the higher the productivity of the morphological category in question. The problem with this measure is, however, that it does not take into account present new forms (see the English suffix *-ment*); 2. by measuring the potential productivity (dividing the number of hapaxes for a morphological category by the number of all tokens in a corpus). In the next section, we will discuss a number of current diachronic studies applying these measures.

3.3.1 The notion of productivity in a diachronic context

As noted above, almost all work done on morphological productivity has made none or little reference to time, leaving aside changes over time, i.e., the diachrony of a language. Aronoff

[5] For further measures proposed by Baayen see the works cited in this book.

(1976, 1980a, 1983) distinguishes between actual and possible words and claims that productivity has to be studied in a synchronic perspective only. Nevertheless, he notes that

> At first glance, it seems more plausible to think of productivity in purely diachronic terms. According to this view one would say that Rule A is more productive than Rule B if more words formed according to Rule A enter the language in the time between two given points T1 and T2. Thus, since productivity is computed by comparing points in the history of a language, it is a diachronic matter. (Aronoff 1980: 71f)

However, we could approach this matter from a synchronic perspective if we referred to a certain point in time without reference to a point in the past. We would then come up with a way of measuring the actual words of a language, comparing them with those words that have been formed already. According to Aronoff, that is not enough, because what we really want to know is how likely it is that words are created according to a given rule. He states

> Within such a dynamic framework, the productivity of a given rule at a given time would tell us how likely it is that a new word will be used which is formed according to that pattern rather than according to another. The more productive the rule, the more likely the word. Productivity would thus be incorporated into a synchronic grammar, but expressed in terms of probability. (Aronoff 1983: 72))

In the last sentence both the synchronic and the diachronic perspective are implied. Productivity of a given rule at a given point in time is a synchronic notion but the notion of probability inevitably refers to the future and thus to the dynamics of morphological phenomena (thus indirectly also implying diachrony). This is probably also what Bauer (1988: 61) means when he says

> [...] we can speak of productivity in synchronic terms, or of changes in productivity in diachronic terms, but not of productivity as such in diachronic terms.

What we want to investigate in diachronic studies on word formation are new words over time, i.e., to what extent new morphological categories arise, fade away, or always remain peripheral. It was shown above that there are a number of statistical measures to deal with productivity from a quantitative point of view. In general, there are two ways to empirically test productivity: by means of dictionaries and by means of text corpora. Traditionally, dictionaries have been used to study diachronic aspects of productivity (Anshen & Aronoff 1988, 1999) but methodologically this is problematic for a number of reasons. First, it is often the case that a word has been in use long before it occurs in a dictionary. Second, as Cowie & Dalton note (2002: 419) "Historical linguists are well aware of the fact that the all-important first attestation dates are very much a matter of chance of documentation" (for further methodological problems see Baayen & Renouf 1996, Cowie & Dalton-Puffer 2002, Bauer 2001, Baayen 2008). During the last decade historical data have become available by building annotated diachronic corpora that are extremely useful for linguistic analysis. Although it has been claimed that their small size[6] poses problems for analyses they present an authentic, context-based section of language (see Scherer 2003, and McEnery & Wilson 1996: 106 who note that "[e]mpirically based text research is a *sine qua non* of historical linguistics"). Further, as Plag, Dalton-Puffer and Baayen (1999: 215) have pointed out "what exactly counts as sufficiently large is not easy to determine", and Baayen (1992: 187) in his study on Dutch states

[6] The diachronic corpora investigated here range from 1.2 to 1.8 million words and are much smaller as present-day English corpora like the BNC consisting of 100 million words.

> Fortunately, the reliability of the Eindhoven corpus need not be questioned with respect to the issue at hand. Even though the Eindhoven corpus is admittedly small[7], the major patterns of productivity already emerge very clearly.

The study by Dalton-Puffer (1996) represents the first attempt to apply statistical measures to diachronic data to measure changes in productivity in Middle English. She compares Middle English suffixes using realised productivity (type frequency, extent of use) as well as token frequency across the subcorpora of the Helsinki corpus. She notes that it is the type frequency that is generally taken to indicate productivity (see also Scherer 2003: 94). However, it was mentioned above that it should not be the only measure applied since it is more indicative of past than of present productivity. In their study on productive lexical innovation in the British *Times* Baayen & Renouf (1996) focus on type frequency, expanding ('hapax-conditioned productivity') and potential productivity to compare the productivity of five deadjectival derivational affixes from a diachronic perspective, in their study from 1989 to 1992. Thus, they include the temporal dimension although they restrict themselves to what they call "sampling time (in tokens) rather than real time (in months)" (1996: 72). Cowie (1999) investigates nominalisations in ENE using the ARCHER corpus. She adopts productivity measures used by Baayen & Renouf (1996) but she also uses a starting lexicon to check each new period of text against it (as starting lexicon she takes the first two periods of the ENE section of the Helsinki corpus). The difference between Baayen & Renouf's study and Cowie's study is that the "time intervals" differ: in the former study the subperiods consist of months whereas in the latter study (and other diachronic studies like for example Dalton-Puffer's) they consist of 50 years (and more), and often their sizes greatly vary. Nevertheless, in both cases we gain the diachronic perspective by comparing types, tokens, etc. of the different time spans (subcorpora). In her diachronic study on the German *-er* suffix Scherer (2003)[8] estimates the productivity of these derivations for a number of defined points in time in the *Mainzer Zeitungskorpus*. In this way she gains type frequencies for the selected points in time that can be compared and that provide insights into the diachronic development of this derivational pattern. She notes that the corpus size has to be included into the estimation of productivity because it influences the number of types, tokens, and hapax legomena and consequently also measures like type frequency (realised productivity) and expanding productivity. Since productivity is determined by a number of factors (see Plag 1999 and Baayen 2008) Scherer includes the following measures into her study: type frequency (realised productivity), productivity in the narrow sense (potential productivity), expanding productivity as well as token and the number of hapax legomena. One of her interesting results is that changes in word formation become manifest in changes in productivity (for all the results see Scherer 2003).

Another study that I will briefly discuss is Bauer's study (2002) on PG **-dōm* because this element will also be investigated in detail in chapter 4. Moreover, this study shows that productivity can also be investigated from a comparative perspective. In his study on the suffix *-ment* Bauer (2001) he notes that the productivity of this morphological category changes over time, implying that, apart from the comparative perspective, he also takes the diachronic perspective into consideration. He states

> That being the case, whether or not a particular morphological process is productive, or to what extent it is productive, is an important question which needs to be answered in giving a full

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[7] It comprises 600.000 words.

[8] For another study of this suffix related to first language acquisition see Meibauer et al. 2004.

> synchronic description of the morphology of any language, and the variation in productivity should be considered in any diachronic description. (Bauer 2001: 9))

According to Bauer, PG had a nominalisation suffix *-*dōm* that can be found in many Modern Germanic languages like English, German, Dutch or Danish. In Germanic times this element had the status of a free morpheme that was used as head of compounds. In Old English the word *dōm* with the meanings 'judgement, statute, jurisdiction' occurs (see OED) that in Modern English occurs as the free morpheme *doom*. In the other Germanic languages we find reflexes of this element. In his study Bauer considers Danish, Dutch, English and German[9].

Danish exhibits derivations with the suffix *-dom*, the bases of these derivations can be of the type adjective, verb and noun. With respect to the semantics of these formations we find a collective meaning (*ungdom* 'youth', *rigdom* riches'), a stative meaning (*fattigdom* 'poverty'), a concrete meaning (*helligdom* 'sacred object or place', *ejendom* 'property'), an abstract meaning (*lærdom* 'scholarship', a temporal meaning (*barndom* 'childhood'). In the literature it is claimed that the suffix is no longer productive. There is also a separate suffix *-domme* occurring in derivations like *bispedomme* 'bishopric' with the meaning 'power, area of power'. It is further noted that both suffixes also occur in compounds but no examples are given.

Dutch has derivatives with the suffix *-dom*, having adjectival and nominal bases. We find a collective meaning (*rijkdom* 'riches', *studentendom* 'students as body'), a meaning denoting territory or power (*hertogdom* 'duchy'), an abstract meaning (*eigendom* 'property'). In Modern Dutch derivations with the suffix are said to be no longer available for new coinages.

English has derivations with the suffix *-dom* and, according to Marchand (1969) they occur quite frequently, i.e., the suffix is still very productive today. The suffix shows adjectival and nominal bases, as concerns the semantics of these derivations, the following meanings have been listed: meanings denoting a state or condition (*bachelordom*), collective meaning (*gangsterdom*, *puppydom*), a meaning denoting territory (*dukedom*), an abstract meaning (*freedom*).

German shows the suffix *-tum* and derivations with this suffix have adjectival, nominal or verbal bases. With respect to the semantics we find a meaning denoting persons (*Kennertum* 'connoisseurship') a collective meaning (*Bürgertum* 'the middle classes'), a meaning denoting territory (*Herzogtum* 'duchy'), an abstract meaning (*Irrtum* 'error'), a concrete meaning (*Heiligtum* 'relic, sanctuary'). All types of derivations are not very productive in Modern German.

By comparing the different suffixes of *-dom* in the cognate languages we find that originally the element could be used with adjectival, nominal, and verbal bases. In the course of time, this property was lost. Derivations with nominal bases are most frequent in all languages investigated here (and most productive) and have developed further meanings (collective, territory). Some languages like Danish have developed another suffix (*-dømme*). These findings imply that most crucially restrictions on bases can change in the course of time. As mentioned above, in (P)G times the element could be used with adjectives, nouns and verbs but in the Modern languages it can be used with some of these bases only. In some languages like Danish and Dutch the suffix is no longer productive at all, in German it is productive only with nominal bases denoting persons. The collective meaning can only be found in English and German. There are some residues from earlier times where other patterns were still

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[9] For the literature he cites for the several studies from these languages see Bauer 2001: 164ff)

productive as, e.g., the one with adjectival bases (we find *rigdom*, *rijkdom* and *Reichtum* in Danish, Dutch and German). Bauer (2001: 169) notes that "[...] these words thus provide an excellent example of the process of lexicalisation, even though all of the 'riches' words remain analysable in their own languages."

The comparison briefly discussed above shows that a morphological category, in our case the suffix *-dom* and its cognates in other Germanic languages, take on different patterns of productivity. It was shown that constraints may change, and that some patterns are lost, others added. This applies not only to the formal properties (restriction of bases) but also to the semantic properties (new meanings develop etc.). Bauer concludes

> The resultant patterns [...] are very different, and would presumably be described by different sets of rules, yet each of these situations has emerged gradually from the same fundamental Germanic process. For the differences to emerge, the rules must change with time, and if the differences are shown by changes in the rules, they cannot be merely performance based.
>
> (Bauer 2002: 172)

Although Bauer's approach to compare one suffix (of the same origin) in different languages is very interesting and seems to yield promising new insights into productivity, the study has a number of shortcomings. First, it is not clear what productivity means here since it is not defined at all. Moreover, descriptions of the status of the suffix in the four languages discussed are compared without mentioning the procedure of methodology of these studies. Thus, it is not clear what is compared here, i.e., it is not clear how many derivations in English and the other languages were investigated, and whether we talk about types or tokens, etc. Although we have certainly obtained a general picture of the situation, some of the results are therefore questionable: Bauer (2001: 170f) compares formations with the meaning 'jurisdiction, territory' and shows that there are gaps, so, e.g., in Danish we find *bispedømme* and in German *Bistum* but no derivation with *-dom* in English. He claims that these gaps "[...] are due to the lack of the appropriate base in the relevant language" (2001: 171). This might be true for some of them (it is not surprising that we do not find an English equivalent for German *Fürstentum*), but for others it could also well be the case that the data base was too small and that the word actually exists, and that the gap is no gap. Thus, the study would have been more insightful if some quantitative measures of productivity had been applied to the data, and if a well-defined data base, of the same size for all languages, would have been investigated.

3.4 Conclusion

In this chapter, frequency and productivity were discussed. It was argued that since the development under investigation includes non-derivational (compounding) and derivational (suffixation) processes, both frequency and productivity are relevant for analysing the data presented. It was further claimed that we expect to find a transition from creativity to productivity and that the threshold could be defined by type frequency if a new type also implies a new rule or the exploitation of a new rule. Moreover, we assume a correlation between hapaxes and neologisms in the corpora surveyed here implying that the number of hapaxes can

be seen as an indicator of productivity. Taking all these assumptions into account, I propose the following criterion:

(1) **Criterion of Productivity**:
A productive series of formations is defined as the occurrence of formations with a morphological category with *at least* two hapaxes where a hapax is a new type built by a new rule and a new type exploiting that new rule.

The criterion suggested above, along with the formal and semantic criteria developed in chapter 2, will be applied to the diachronic data in the following chapter. For the reasons outlined above, I will also use type and token frequency to describe the development of *-hood*, *-dom* and *-ship*. We will try to see in how far we can apply the statistical measure of productivity in the narrow sense discussed above. To be able to define neologisms I will use a kind of starting lexicon (in line with Cowie 1999) to check each new period against it (e.g. for the ME data I will use the formations occurring in OE as starting lexicon and so forth). Further, I will give the type/token ratio for formations with *-hood*, *-dom* and *-ship* at the different stages of their development to measure their lexical richness (which, of course, can only show a tendency). And finally, we will apply Hay's measure of relative frequency which was defined as the ratio of the frequency of the derived word to the frequency of the base word. In this way, we will measure the relation the formations have to their bases and we will obtain information about their productivity (keep in mind that low relative frequency correlates with high productivity).

4 The data

4.1 Introduction

In chapter 2 we discussed various studies dealing with the development of suffixes from free morphemes as well as with the nature of compounds and suffixes to establish criteria to define syntactic phrases, compounds and suffixes. In this chapter we are going to describe and analyse the development of the native suffixes *-hood*, *-dom* and *-ship* by looking at diachronic data and therefore we are going to apply these criteria to the data. Before we start with the empirical work we will summarise the criteria again:

Prerequisites for development	
1.	Syntactic entity has a non-referential interpretation
2.	Semantically compositional
3.	Existence of syntactic constructions with the element in question as verbal head
4.	Phrasal stress pattern (main stress on head)
Compound status (semantic and formal isolation)	
1.	Semantic: compound has a uniform concept, salient meaning, is non-compositional, modifications refer to whole compound
2.	Formal: omission of determiners, omission of morphological agreement, positional mobility, uninterruptability, internal stability, compound stress pattern (main stress on first element)
3.	Process of analogy
Suffix status	
1.	Semantic: abstract meaning, differs from meaning of free form
2.	Formal: bound morpheme, other categories as bases, phonologically different from free form
3.	Process of analogy

Table 4.1: *Summary of formal and semantic criteria of syntactic phrases, compounds and suffixes*

These criteria and the criterion of productivity proposed above will be applied in the following.

In this chapter, I will present data from different stages of English: Old English, Middle English, Early Modern English (ENE) and Modern English. All the data are gained from the following diachronic corpora: *The York-Toronto-Helsinki Parsed Corpus of Old English Prose* (Taylor et al. (2003), henceforth YCOE), *The York-Helsinki Parsed Corpus of Old English Poetry* (Pintzuk et al. (2001), henceforth YCP), *Penn-Helsinki Parsed Corpus of Middle English 2*(Kroch & Taylor (2000), henceforth PPCME2) and *The Penn-Helsinki Parsed Corpus of Early Modern English* (Kroch et al. (2004), henceforth PPCEME). These corpora are all annotated which allows and facilitates linguistic analysis on the word and clause level

(part-of-speech tagged files, parsed files). The text samples are based on the Old English, Middle English and Early Middle English section of the Diachronic Part of the Helsinki Corpus of English Texts, although the size of the samples is considerably larger. The YCOE contains 1.5 million words, the PPCME2 1.2, and the PPCMEME 1.8 million words. The YCP, which is used additionally for the investigation of stress patterns, contains about 70.000 words. The corpora comprise text samples and strive for a representative coverage of written language in the respective time periods. They are well-balanced corpora since they are collections of texts, representative of various text types, levels of style and modes of expression, geographical and social varieties. The periodisation of the OE, ME and EME periods was adopted from the Helsinki corpus, which divides the periods as follows:

Old English	Middle English	Early Modern English
O1: - 850	M1: 1150-1250	E1: 1500-1569
O2: 850-950	M2: 1250-1350	E2: 1570-1639
O3: 950-1050	M3: 1350-1420	E3: 1640-1710
O4: 1050-1150	M4: 1420-1500	

Table 4.2: *Periodisation of the diachronic corpora*

The reasons why I chose to work with these corpora are that first of all, they are all about the same size and have the same structure which makes the findings comparable. Second, since the starting point of the development of suffixes is the stage where they function as heads of syntactic phrases, the easiest and most reliable way to reach a good coverage is using an annotated corpus where syntactic structures can directly be searched for. The Modern English data was extracted from the *British National Corpus* (BNC) which contains 100 million words of spoken and written language. As control corpora I used the corpus of the *Dictionary of Old English*; further I used the following dictionaries: the *Oxford English Dictionary* (OED), the *Dictionary of Old English* (DOE), Bosworth & Toller (BT), the *Middle English Dictionary* (MED), *Lexicons of Early Modern English* (LEME), the *Oxford Dictionary of English Etymology* (ODEE), *Websters* and the *Longman Dictionary of Contemporary English*.

4.2 The development of -hood

4.2.1 *hād* in Old English

Before we deal with the data gained from the YCOE, let us take a look at the entry for the suffix *-hād* in the OED (version 3.0, 2002):

> *-hood*, suffix (hʊd) [(OTeut. **haidu-z*:cf.Goth *haidus* way, manner, OHG heit m. and fem., ME. *-hōd* (*-hōde*):-OE. *-hād* = OS. *-hed*, OHG. *-heit*.] Orig. a distinct n., meaning 'person, personality, sex, condition, quality, rank' (see hād n.), which being freely combined with nouns, as in OE. *cild-hād* child-condition, *mæð-hād* virgin state, *pāpanhād* papal dignity, ceased at length to be used as a separate word, and survived as a mere suffix, and is thus noteworthy as a late example of the process by which suffixes arose. If it had lived on, the modern Eng. form would have been *hōde* or *hoad*. The ME. form was regularly *-hōd* with open ō, as still in Chaucer; but in the 15th

> c. it had become close o (riming in Bokenham's Seyntys with gyd 'good' and this duly gave mod.Eng. *hood*. A parallel suffix, from same root and in same sense, is *-head*, ME. *-hed*, *-hēde*, Sc. *-heid*. A considerable number of derivatives in *-hood* go back to OE. *-hād*, e.g., *bishophood*, *childhood*, *priesthood* [...] many are of later origin, either with *-hood* substituted for the cognate *-hēde*, *-head*, e.g., *falsehood*, *lustihood*, or as analogical formations, in some of which *-hood* has displaced earlier suffixes. Being a living suffix, *-hood* can be affixed at will to almost any word denoting a person or concrete thing, and to many adjectives, to express condition or state, so that the number of these derivatives is indefinite. Nonce-formations are numerous.

As noted in the OED, in OE *hād* occurs with the status of a free morpheme bearing the meaning 'person, individual, condition, state, nature, form, manner, sex, order etc.'. According to Clark Hall (1996: 164) *hād* occurs as free morpheme as well as suffix *-hād* which "usually denotes state or condition [...]" as in *cildhād*, *mægðhād*. Voyles (1992: 274) notes that we find a suffixal element **haiþ* with adjectival and nominal bases; the derivative is a noun with the meaning 'state or quality of being that adjective or noun'. It is also noted that this formation probably was a compound in Early Germanic. Faiß (1989: 190), however, notes that the status of *hād* from free morpheme to suffix changed in the ME period. These two statements are obviously contradictory and therefore, the alleged suffixal status of *hād* in OE needs some further investigation. One important factor for the development from free to bound morpheme could be the high frequency of occurrence of *hād* as a second element in compounds, another factor could be Messing's assumption that the frequency of occurrence of syntactic constructions with the verbal form of *hād* (which in OE was *hādian*, see below) tells us something about the morphological status of *hād*. According to Faiß, the first instance of usage for ME *-hōd* 'condition, state' dates from about 1440, the last instance of usage for the free morpheme variant about 1599. According to Marchand (1969: 293), in OE *hād* occurs as free morpheme with the meaning 'state, rank, order, condition, character'. All formations with *hād* are generally compounds with *hād* as the second element. The majority of formations are desubstantival derivations like *bishophood* or *childhood*. Deadjectival derivations start to occur in the ME period denoting 'state of being, instance of' (*falsehood*, *likelihood*). He further notes that this type of derivation never was very productive and can rarely be found today. In ModE, the meaning of productive derivations with the suffix *-hood* is 'status of', the majority of formations denotes above 'general natural conditions of human life'. Moreover, derivations like *wifehood*, *widowhood* denote 'civil states with legal right and duties'. There are also examples like *boyhood*, *girlhood* with the meaning 'time, period', where this meaning refers to the status of a person. Further, there are examples like *brotherhood*, *ladyhood* denoting collectivity (referring to persons) as well as nonce-formations like *cathood*, *duckhood* with a nominal base that refers to the nature of animals.

As concerns the phonological change of this element, there seem to have been two forms that developed differently, one *-hēde* and one (-)*hād*. It is assumed that the former is due to West Germanic influence (Martin 1906, Skeat 1892) and corresponds to Modern German *-heit*. The latter is OE *hād* [ha:d] that develops into ME *-hōd* [hɔ:d]; in Late ME it develops into [ho:d][1] (which is e.g. found in Chaucer's works), and during the massive sound change called the Great Vowel Shift[2] (GVS) into [hu:d]; the long vowel was shortened which results in ModE [hʊd] (Faiß 1989: 55, Hogg 1992 and Markus 1990). It seems to be obvious that

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[1] see e.g. Freeborn 2006: 125.

[2] The GVS is assumed to have taken place during the fifteenth to eighteenth centuries. See Dobson 1968, Freeborn 2006.

two different forms existed as ME *-hēde* could simply not have developed from OE *hād* (and, moreover, it does not occur in OE) for phonological reasons. Therefore, it seems to be plausible to assume a phonological variant *-hēde* that developed into *-head* as in *maidenhead* and that also got extinct in the course of time. We will come back to this point below.

Since the first stage of the development starts out with the element in question as free morpheme, the criteria of syntactic phrases are relevant here. Therefore, we will investigate the following properties of the free morpheme *hād*: with respect to the formal properties we expect to find morphological agreement between *hād* and its modifiers and a phrasal stress pattern (main stress on head). Moreover, we will examine if we can find syntactic constructions with the element as verbal head (for the motivation for this assumption see chapter 2). With respect to the semantic properties we expect to find that the syntactic entity has a non-referential interpretation and that it is semantically compositional. In the following, we will discuss these criteria in detail.

As shown above, the OED gives the meanings 'person, personality, sex, condition, quality, rank' for the free morpheme *hād* which implies that at this stage the element seemed to have been polysemous. It has been assumed that these elements used to have one original meaning which is sometimes called the core or salient meaning. Investigating the development of suffixes we need to take into account changes on all levels of language, and especially on the level of semantics. Here, we need to be aware that "semantic change cannot be studied without drawing on a theory of polysemy because of the nature of change" (Traugott & Dasher 2005: 11). What is assumed in this book is that we find older meanings, some of them salient, that co-exist with newer meanings, and that these older meanings are either lost (in rare cases) or retained. Thus, an accretion of more and more meanings over time is typical and has been called "layering" by Hopper (1991). It will be shown with the data that the polysemies of *-hood*, *-dom* and *-ship* have coexisted over several hundreds of years, but that their relationship to each other as concerns saliency has changed. In the following, it will be shown that the OE free morpheme *hād* used to have at least one salient meaning that resulted in polysemies in the course of time.

In his study, Wiesner (1968: 8) shows that in religious texts *hād* was the English translation for Latin *ordo* which did not mean 'order' in the general sense but denoted the clerical order ('order of a priest'). Further evidence can be found in cognate Germanic languages like Old Norse where *heidr* denotes a 'person of high rank', and more explicitly 'rank of a priest' (and magician). In the YCOE we find examples like (1) that show that in OE *hād* could have this meaning[3]:

(1) … and cwǣdon ānmōdlice þæt Martinus wǣre wyrðe **þæs hādes**, and
and said unanimously that M. were worth the office and
gesǣlig sācerd tō swilcum bisceopdōme.
blessed priest to such episcopate

(ÆLS_[Martin]:264.6135)

The context illustrates that *þæs hādes* denotes the office of a priest here because in the conjunct of the subordinate clause *gesælig sacerd* refers to this specific office. Thus, *hād* had – according to context – the specific meaning 'office (of a priest)'.

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[3] Since the quantity of vowels is distinctive in OE (see e.g. Mitchell & Robinson 2003), vowel length will be marked with the diacritic "¯" in all OE examples.

Moreover, we find the weak denominal verb *hādian* with the meaning 'ordain, consecrate'. Interestingly, this verb occurs in syntactic constructions where it is preceded by a noun which refers to the person ordained[4]:

(2) … onfeng from Bonefatio þām pāpan, þæt hē **biscopas hādian** mōste.
received from Bonefatius the pope that he bishops ordain must
(Bede_2:7.118.26.1135)

(3) … hwæðer hē æfter fæce meahte ōðerne findan, þe mon tō **biscope**
whether he after while might other find who man to bishop
hādian meahte.
ordain might
(Bede_4:1.254.13.2583)

(4) Hē him nalde nēowne **biscop hādian**.
He him not-wished new bishop ordain
(LS_3_[Chād]:39.26)

(5) Þā wolde **se hālga hādian** hine tō dīacone.
then wished the saint ordain him to deacon
(ÆLS_[Martin]:137.6047)

If these cases are compared with nominal phrases where *hād* functions as nominal head as in (6) the same linear ordering is found: the verbal pattern *biscop hādian* 'bishop ordain' and the nominal pattern *ærcebiscopes hāde* 'archbishops office' where the former denotes the activity of ordaining somebody and the latter denotes the label of the office ordained. Note that *ærcebiscopes* could have a referential as well as a non-referential interpretation.

(6) þæt hē þǣr onfenge **ærcebiscopes hāde**.
that he there received archbishop's office
(Bede_3:21.248.11.2540)

There seems to be a connection between these two constructions, and the frequency of these co-occurring constructions may well have supported the generation of compounds. Although this point needs some further discussion, we can state for now that the criterion proposed by Messing seems to hold for the early stages in the development of *-hood*.

If we try to define the semantics of *hād* we need to examine other formations with this element. So far we have seen that the nominal *hād* occurs with (at least) the meaning 'office' and the denominal verb *hādian* with the related meaning 'to ordain, consecrate'. Further, we find *hādung* 'ordination', a nominalisation with the OE suffix *-ung* that shows an event reading[5]:

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[4] This is the most frequent case. The last example below, however, illustrates that the person who ordains somebody may also linearly precede the verb.

[5] *Hadung* consistently occurs with *on* 'during' or a temporal adverb denoting the time before or after the act of ordaining. This finding shows that it clearly has an event reading. I also found few occurrences of *hading* with the same meaning.

(7) … þæt hine man hādode tō mæsseprēoste. Þā sōna æfter his **hādunga**
that him man ordinated to masspriest. then soon after his ordination
him wæs getācnod þurh sume onwrignesse, þæt hit næs nāht feor his
him was indicated through some revelation that it not-was NEG far his
ænde.
end

(GDPref_and_3_[C]:23.225.23.3091)

In this example somebody is ordained to masspriest. In the following sentence the time after the ordination is mentioned which clearly shows an event reading (*hādung* could not refer to a result reading here). If the meaning of the noun *hād* is compared with the meaning of *hādung* we see that it only has a result reading. This might explain why we have two nouns here, i.e., why the speaker uses a simplex noun and a derived noun: with the nominalisation he can express an event reading, with the simplex noun he expresses the result of this event. Another example which nicely illustrates this differences is given below:

(8) and on ælcere **hādunge** ge on diaconhāde ge on prēosthāde, ge
and during each ordination whether in deacon-office or in priest-office or
on biscophāde æfre sē ðe ðāær gehādod bið, hē bið gesmyrod mid
in bishop-office always he who there ordained is he is anointed with
gehālgodum ele.
consecrated oil

(ÆHom_II,_1:7.162.137)

Further, we find a number of complex words with *hād* as first element. These are given below with their meanings (following Clark Hall 1996: 164 and Bosworth & Toller 1898: 498):

(9) *hādbōt* ‘compensation for injury or insult to a priest’
hādbreca ‘injurer of one in (holy) orders’
hādesmann ‘member of a particular order’
hādgrið ‘privilege as regards (peace of) holy orders’
hādnotu ‘office of a priest’
hādungdæg ‘ordination day’

These examples all refer to an ecclesiastical office implying that this meaning must have been salient in OE[6]. Further support comes from syntactic phrases with *hād* functioning as nominal head as shown above with (6) and below with (10).
In the example in (10) it is shown that *hād* is modified by *sācerdes*. The modifier agrees with the head noun *hād* (in case, number, gender). Semantically, it determines the meaning of *hād*, it specifies what kind of office is meant. Moreover, a referential reading of *sācerd* ‘priest’ is possible. Note also that *sācerd**es** hādes* as well as *sācerdhādes* occurs in the text which shows the difference between a phrase and a compound. In the latter case there is no agreement on *sacerd* and only a non-referential reading is possible:

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[6] Of course, it has to be taken into consideration that the majority of texts from that time are religious texts that from their context seem to require this meaning of *hād*. But still this fact could not have influenced the language so much that many compounds as well as the weak verb occur with this meaning.

(10) Sōðlīce wæs geworden þā Zacharias [$_{Gen}$ **his sācerdes hādes**] breac on hys
truly was become that Z. his priest's office used on his
gewrixles endebyrdnesse beforan Gode. Æfter gewunan [$_{Gen}$ **ðæs**
vicarious' order before God. After habit the
sācerdhādes hlotes] hē ēode þæt hē hys offrunga sette;
vicarious-order's decision's he came so that he his sacrifice set

(Lk_[WSCp]:1.8.3569)

Apart from contexts where the meaning of *hād* is 'office' we also find contexts where the element has the meaning 'person' (11), 'sex' (12 or 'status' (13) which is identical to what we find in the entry for *hād* in the OED:

Person

(11) & **[se$_{Nom,Sg.}$ ðridda$_{Nom,Sg.}$ hād$_{Nom,Sg.}$]** on ðære hālgan ðrynnysse isse
and the third entity on the holy threeness is the
hālga Frōforgāst …
Holy Ghost

(ÆHom_12:1.1792)

Sex

(12) & hit hafaþ hāt wæter, & hāt baðo [$_{Dat}$ **ǣlcere yldo & hāde**]
and it has hot water, and hot bath each age and sex
ðurh tōdǣlede stōwe gescræpe.
through divided site suitable
"and it has hot water, hot bath through a divided site suitable for each, age and sex"

(Bede_1:0.26.12.191)

Condition

(13) ac hēo byð gesælig gif hēo on [$_{Dat}$ **wudewan hāde**] wunað, be mīnum
but she is happy if she on widow state exists by my
ræde.
advice.

(ÆHom_20:84.2973)

There are also a number of complex words with *hād* as first element that show these meanings (see BT):

(14) *hādswæpa* 'bridesman'
hādswæpe 'bridesmaid'
hādelīce 'as to persons'

With respect to the semantics of *hād* we can formulate the following criterion:

(15) Semantic Criterion I: syntactic phrases of the type [Noun$_{agreement}$ + *hād*$_{agreement}$] are semantically compositional and have a referential reading. Compounds of the type [Noun + *hād*] have a non-referential reading.

DPs with Noun + *hād* in OE			
	M	**T**	**Case**
wuduwan hāde	'state of woman whose husband has died'	8	GD
wimmanes hāde	'state of woman'	1	GD
þēofes hāde	'state of thief'	1	GD
cyninges hāde	'rank of king'	1	GG
sācerdes hādes	'order of priest'	1	GG
ærcebiscopes hāde	'order of archbishop'	1	GD
ǣfestnesse hād	'order of religion'	1	GA
abudessan hād	'order of abbess'	1	GA
Total		15	

Table 4.3: *DPs with Noun + hād in OE*

As concerns the grammatical status of *hād* in the corpus we find 180 cases where *hād* is modified by a numeral, an adjective, or an NP in the genitive ((11) is repeated here as (16)):

(16) & **[se**$_{\textbf{Nom,Sg.}}$ **ðridda**$_{\textbf{Nom,Sg.}}$ **hād**$_{\textbf{Nom,Sg.}}$**]** on ðǣre hālgan ðrynnysse isse
and the third entity on the holy threeness is the
hālga Frōforgāst …
Holy Ghost

(ÆHom_12:1.1792)

(17) Þā forþon sōna swā hire gemæcca wæs forðfēred, hēo wearp hire
then forthwith soon as her companion was departed she expelled her
fram **[þām**$_{\textbf{Dat,Sg.}}$ **woruldlican**$_{\textbf{Dat,Sg.}}$ **hāde**$_{\textbf{Dat,Sg.}}$**]**
from the secular office

(GDPref_and_4_[C]:14.279.19.4103)

(18) and sēo gefylde þysne earfoðan cwyde ðurh **[**$_{\textbf{Acc,Sg.}}$ **ðā ānnysse**
and she fulfilled this difficult speech through the oneness
[Crīstes$_{\textbf{Gen,Sg.}}$ **hādes**$_{\textbf{Gen,Sg.}}$**]]**;
(of) Christ person

(ÆCHom_II,_28:224.113.4984)

In all 180 cases the head noun agrees with its modifier(s). This is taken to be a diagnostic for the status of *hād* as free morpheme (see also Sauer 1992). Those cases (15) where *hād* is preceded by a noun show genitive case marking on that noun (in Table 4.3 in the rightmost column this is indicated by G and the case (D for dative, A for accusative) of the head noun)[7]: If these cases are compared with other Noun + Noun phrases in the corpus it occurs that the first element always bears genitive case:

[7] In the following tables M stands for meaning, B for base relating to relative frequency and T for token frequency.

(19) **Frequency**
77 mann**es** sunu
59 worlda woruld
32 dōm**es** dæge
31 wælstōw**e** geweald
22 heofon**a** rīces
21 līf**es** wer
21 hīred**es** ealdor
31 mann**a** sāwla

These cases are the source of genitive compounds (for a thorough and comprehensive investigation of this type of compounding see Sauer (1992)).
From what has been shown with the data so far we can propose a generalisation and formulate the following syntactic criterion:

(20) Syntactic Criterion I: if elements of the type [Noun/Adjective$_{\text{agreement}}$ + *hād*$_{\text{agreement}}$] show agreement between the head noun and its modifier(s) they have the status of phrases.

Another striking observation is that, contra standard analyses, (Martin 1906, Dalton-Puffer 1996) *hād* occurs with adjectival modifiers which implies that this is a source for the ModE *-hood*-derivatives with an adjectival base:

(21) … Þætte Cynred Mercna cyning & Offa Eastseaxna cyning on [$_{\text{Dat}}$
that Cynred Mercian king and Offa Eastsaxon king in
munuclicum hādum] to Rōme becōm, …
monastic office to Rome came

(BedeHead:5.24.12.137)

(22) siððan hē hī tō [$_{\text{Dat}}$ **ðām apostolican hāde**] gecēas. swā swā Pētrus tō Drihtne gecwæð;
afterwards he them to the apostolic office chose. just as Petrus to Lord said

(ÆCHom_II,_6:57.158.1152)

In Table 4.4 (p. 48) we see that all occurrences of the type Adjective + *hād* given above show agreement between the adjectival modifier and the head[8]. Therefore, they must be syntactic phrases.

Interestingly, in the corpus adjectives precede *hād* more frequently than genitive nouns do. This finding seems to be surprising as few phrases of the type Adjective + *hād* occur (see below). With respect to the meaning of these phrases a number of phrases resemble the phrases of the type Noun + *hād*:

(23) Wæs hē Peada ging æðeling good & **cyninges noman & hāda** wel wyrðe;
was he P. young noble good and king's name and order well worthy

(Bede_3:15.220.21.2259)

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[8] Note that the figures given throughout the book are not normalised which means that they have to be seen in relation to the relative sizes of the subperiods studied for OE, ME and EME.

DPs with Adjective + hād in OE		
	M	**T**
hālgum hāde	'holy office'	14
lǣwedum hāde	'laic rank'	10
godcundra hāda	'religious office'	6
hīeran hāde	'high/sublime rank'	4
apostolican hāde	'apostolic rank'	3
ciriclicum hāde	'ecclesiastical office'	3
hēalicne hād	'high/sublime rank'	3
wǣrlices hāde	'wise state'	2
woruldlican hāde	'secular office'	2
woruldcundra hāda	'secular office'	2
ēadmoddran hāde	'humble state'	1
munuclicum hādum	'monastic rank'	1
untrumum hāde	'weak state'	1
wīflice hāde	'female state'	1
cynelica hād	'kingly rank'	1
tȳdran hāde	'weak state'	1
clǣnan hāde	'pure office'	1
efenspedelecum hāde	'consubstantial office'	1
Total		57

Table 4.4: *DPs with Adjective + hād in OE*

(24) Ond þætte sē **cynelica hād** þæs hālgan weres ēce gemynd
and that the kingly order the holy men eternal remembrance
hæfde, …
had

(Bede_3:9.182.33.1825)

Both phrases, *cyninges hāda* and *cynelica hād* seem to have the same meaning: 'rank of a king', i.e., they denote the rank of a person and thus adjectives like *cynelica* act like relational adjectives.[9]

There are some striking cases like *clǣnan hāde* where we seem to have a qualitative adjective ('property of being clean'), but if we have a closer look at the context we see that *clǣnan* actually also acts as a relational adjective here:

(25) Ac sēðē ǣr hæfde him ān clǣne wif, sē wǣre gecoren to **[þām**
but he who before had himself a pure wife he were chosen to the
clǣnan hāde, swā swā se apostol Paulus on his pistole āwrāt.
pure office just as the apostle P. on his epistle wrote

(ÆLet_1_[Wulfsige_Xa]:25.29)

[9] By relational adjectives I mean an adjective that can be found in constructions like German 'schulische Leistungen' or French 'la voiture présidentielle'. Here we find a relation between the nominal base of the adjective and the noun: 'Leistungen in der Schule' (performance in school), 'la voiture de président' (the car of the president) as opposed to qualitative adjectives like 'gut' as in 'gute Leistungen' (good performance). We could also say that in the first case the adjective is used predicatively whereas in the second case it is used attributively. See also chapter 5.

Here, it is clear from the context that the scribe does not talk about the properties of the office that is pure but about an office for pure persons: somebody was chosen for the pure office. I take this example to show the link between the different meanings of-*hood* that developed later: the meaning 'office' that has its origin in a noun phrase modified by another noun determining the type of office, and that same meaning occurring with relational adjectives as modifiers. From a synchronic perspective the formations still existing in ModE with nominal and adjectival bases seem to exist quite independently with different meanings but the diachronic perspective sheds light on the origins of these patterns and thus on the fact that originally there was a link between them semantically (see also Dalton-Puffer 1996 for similar assumptions for her ME data). A number of adjectival modifiers behaved like nominal modifiers in that they denoted a relation between the head noun and their nominal base. As will be shown below this meaning metonymically shifted to 'property of being A' and was lost in the course of time. Therefore, it is not surprising that in ModE we find two coexisting meanings for Noun + *-hood* and Adjective + *-hood* formations. This finding further sheds light on the phenomenon of polysemy. As noted above, from a diachronic perspective it is clear that different meanings of one form arise during processes like metonymic change or, in traditional terms, bleaching that are characteristics of language change (Martin 1972, Copestake & Briscoe 1995). Thus, in order to adequately explain polysemy it seems to be inevitable to take the diachronic perspective into consideration.

4.2.1.1 Phrasal head or part of compound?

As shown above, apart from syntactic phrases with *hād* as nominal head in OE there are also formations that look like compounds with *hād* marking the next stage in the process of *hād* developing into a suffix. Note that this does not mean that these stages follow each other discontinuously. On the contrary, it has been shown (see e.g. Kroch 1989, Hopper & Traugott 2003) that older and newer forms/structures coexist for individual speakers as well as speech communities over time. Thus, it does not come as a surprise that in OE syntactic phrases with *hād* as syntactic head coexist with compounds with *hād* as morphological head.

In this section we will apply further criteria discussed in chapter 2 for defining the status of *hād* in these formations. The examples below show that *hād* occurs as second element in compounds:

(26) Þā hē nolde for **[his$_{\textbf{Sg.}}$ biscop hāde$_{\textbf{Gen,Sg.}}$]** hī aweg adrifan,...
then he not-wanted for his bishop office they away drive
(GDPref_and_3_[C]:7.188.19.2363)

(27) ... þæt hīe **[heora$_{\textbf{Pl.}}$ fulwiht hādas$_{\textbf{Gen,Pl.}}$]** wel gehealdan.
that they their baptism offices well hold
(HomU_20_[BlHom_10]:109.47.1386)

(28) & **[hyre$_{\textbf{Sg.}}$ mægðhād$_{\textbf{Nom,Sg.}}$]** is ansund, ...
and her virgin state is sound, ...
(ÆHom_1:420.219)

(29) Þǽre tīde þǽr on Cent heold Honorius **[þone**$_{\text{Acc,Sg.}}$ **arcebysceophād**$_{\text{Acc,Sg.}}$**]**,
there time there on Kent held Honorius the archbishop office
(Bede_5:17.452.23.4545)

In (28) and (29) no morphological agreement between *hād* and its modifiers can be found. These formations do not belong to the group of compounds that originally do not show an ending (the so-called zero genitive, see Sauer 1992: 96f): all nouns functioning as first members in the examples given – *biscop*, *fulwiht*, *mægð*, *arcebisceop* – have morphologically overt genitival case endings (*-es* and *-an*)[10]. This also applies to the first members of the compounds given in Table 4.5 (361 examples, see p. 51). According to Sauer (1992: 84) *cyne* in *cynehād* is an allomorph of *cyning* that does not occur as free morpheme itself (it could also be called "cranberry morph") and thus clearly shows the compound status of *cynehād*[11]. All cases given in the table show that *hād* has a different status here, it is no longer a free morpheme but part of a formation.

If we compare the examples above with German compounds we see that they behave alike: only the second element agrees with the definite article in case, number and gender:

(30) a. die/eine Glaskiste 'glass box' (Nom.,Sg.,Fem.) (the/a glass box)
b. die Glaskisten (Nom.,Pl.) (the glass boxes)
c. den Glaskisten (Dat.,Pl.)/*den Gläsernkisten
d. der Gläser Kisten (determiner agrees with first noun)

In Table 4.5 (p. 51), there are three instances of formations that do not fit the formal definition of compounds at first sight: *pāpanhād*, *nunnanhād* and *wuduwanhād* (see examples (31), (32) and (33)).

(31) ne ēac [$_{\text{Nom}}$ nunn**an** hād] nis nā genamod hērtō.
not also nun office not-is never named thus-far
(ÆHLet_1_[Wulfsige_Xa]:46.59)

(32) Hwæt ðā Gregorius siððan hē [$_{\text{Acc}}$ pāp**an**hād] underfeng.
what then G. after he popeoffice received.
(ÆHCHom_II,_9:77.164.1553)

(33) & ðæs bismeres [$_{\text{Gen}}$ ðīn**es** wuduw**an**hād**es**] ðū ne gemansð,
and the disgrace's thine widowstate's you not care-for
(CP:31.207.10.1394)

The first elements of these complex words are all weak masculine and feminine nouns that show an *-an* ending for accusative, genitive, dative in the singular, and for nominative and accusative in the plural. In (31) we find this ending on *nunne* but the whole phrase is nominative. Therefore, the ending cannot function as an inflectional ending here. It has lost this

[10] Carr (1939: 309ff) distinguishes between two types of nominal compounds: "primary compounds" (older type) where the first member appears in the stem form without case ending, and "secondary compounds" (younger type) where the first member shows case endings. He notes that it is obvious that the second type arises from a syntactic phrase that usually consists of a genitival modifier and a noun (or an adjectival modifier and a noun). We will come back to Carr in chapter 5.

[11] This also applies to *ercehād* being an elliptical form of *arcebisceophād*.

Formations with Noun + hād in OE			
M	**B**	**T**	
biscophād	'bishop-office'	2177	86
cildhād	'child-state'	455	54
cnihthād	'boy-rank'	456	29
mægðhād	'maiden-state'	402	22
sācerdhād	'priest-office'	310	21
prēosthād	'priest-office'	530	20
wīfhād	'woman-state'	1313	13
mæsseprēosthād	'masspriest-office'	430	8
martyrhād	'martyr-state'	251	8
werhād	'man-state'	1491	7
camphād	'warfare-state'	9	6
geogoðhād	'youth-state'	51	6
woruldhād	'world-office'	1060	5
wuduwanhād	'widow-state'	24	5
abbodhād	'abbot-office'	573	4
fæmnhād	'maiden-state'	319	4
arcebiscophād	'archbishop-office'	440	4
dīaconhād	'deacon-office'	146	3
cynehād	'king-rank'	3955	3
þrōwethād	'martyr-state'	97	3
þēohād	'servant-state'	616	3
discipulhād	'disciple-rank'	71	2
clerichād	'clerk-rank'	13	2
godhād	'god-state'	10355	1
pāpanhād	'pope-office'	318	1
nunnanhād	'nun-rank'	72	1
Total			361

Table 4.5: *Formations with Noun + hād in OE*

property and must be analysed as linking morpheme (see also chapter 4 and Sauer 1992). As concerns the other two cases, formally it cannot be decided if the endings in *pāpan* and *wuduwan* are real inflectional endings because the phrases are in the accusative and genitive and would therefore require this ending on these weak nouns. Nevertheless, a referential interpretation of these elements does not seem to be possible but clearly had to be possible if *pāpan* and *nunnan* were phrasal elements. Therefore, I assume that these elements are linking morphemes, implying that the formations presented in the table above are compounds. Further evidence for this assumption are the semantic properties of these formations. In line with Messing (1917a) a development from an event reading to a result reading (to an object reading) can be observed. It was shown above that the formation *hādung* displays an event reading in most cases. It contrasts with the simplex *hād* in that in most cases it has only a result reading. Thus, the formations given in the table above should predominantly show a result reading. A number of examples illustrates this (the two formations with the highest frequencies, and two formations with the status of hapaxes):

(34) & fram þām biscope Wilfriðe Acca his mæsseprēost **biscophāde** onfeng.
and from the bishop W. A. his masspriest office-of-bishop received
(BedeHead:5.24.15.138)

(35) **Cildhād** gewit tō **cnihthāde**. & **cnihthād** tō geþungenum wæstme:
childhood goes to youth and youth to fully-grown fruit
(ÆCHom_I,_32:458.209.6525)

(36) ne ēac **nunnanhād** nis nā genamod hērtō.
nor also office-of-nun not-is NEG mentioned thus far
(ÆLet_1_[Wulfsige_Xa]:46.59)

(37) Hwæt ðā Gregorius siððan hē **pāpanhād** underfeng.
Lo then G. afterwards he office-of-pope received
(ÆCHom_II,_9:77.164.1553)

Next, let us take a look at formations of the type Adjective + *hād* given in Table 4.6:

Formations with Adjective + hād in OE			
	M	**B**	**T**
wæpnedhād	'male-state'	2	3
hēahhād	'high-rank'	38	2
efenhād	'equal-rank'	10	2
unrihthād	'wicked-state'	43	3
Total			8

Table 4.6: *Formations with Adjective + hād in OE*

We have seen above that the semantics of this pattern differs from the ModE pattern: we find adjectives that have a relational meaning, i.e., cases where the adjective is used predicatively (we do not find the meaning 'property of being A'):

(38) … þæt ic nū segcan wylle, of **[DP$_{Dat}$** þære **[NP gesægene [NP$_{Gen}$**
that I now say want of the speech
[mīnes efenhādan] **þæs biscopes]]]**, …
my equal-in-state (co-bishops) the bishops
(GD_1_[C]:5.43.20.481)

The example shows that *efenhād* does not mean 'property of being even' in the sense that ModE formations of the type Adjective + *-hood* ('property of being false') are used but that *efen* denotes the bearer of that property.
Apart from these cases there are adjectives that are used attributively, i.e., they have the meaning 'property of being A':

(39) Þā ðe hēr swīðost gālpettað & on **unrihthādum** on oferfyllo
those who here most live-in-gluttony and in wicked state on overflow
bioð forgrīwene, þā bioð þær on mæstum hungre forþrycced.
are sinking those are there on most hunger pressed
(HomU_9_[ScraggVerc_4]:38.565)

Here we see that two meanings of the Adjective + *hād* pattern occur: those that have a predicative adjective have the same meaning as nominal phrases ('rank/office of a person'), and those that have an attributive adjective have the meaning 'property of being A'. The first meaning seems to depend on the structural properties of the adjective that are lost in the course of time.

Apart from the meaning of the Adjective + *hād* pattern we can generally say that compounds that contain the element *hād* do not differ in meaning from phrases with *hād* as nominal head. This is a further semantic criterion that can be stated as follows:

(40) Semantic Criterion II: The meaning of *hād* as part of a compound does not differ from the meaning of *hād* as free element. This shows the non-suffixal status of the element.

As concerns the formal properties of the type Adjective + *hād* pattern we find agreement in almost all cases, i.e., there are few cases with the status of formations that look like compounds.

One criterion that we have not dealt with so far is stress. If we assume that it is criterial to distinguish between phrases and compounds we need to show that in syntactic phrases *hād* as free morpheme bears main stress whereas in compounds it does not because it is the rightmost element. Since it is extremely difficult to define stress patterns in OE prose (see discussion above), we will resort to OE poetry. The reason why we investigate these texts here is that the special form of OE poetic texts (alliterative verse) can give us information about the stress patterns and thus also information about the status of these elements.

The most crucial aspects of OE poetry are form and the occurrence of alliteration. An OE poetic line consists of two rhythmical, alliterating half-lines with a caesura. Alliteration always occurs on stressed syllables, and the third stressed syllable must always alliterate with the first or second stressed syllable.

In the OE poetry corpus only few formations (12) and phrases (16) with *hād* are found. Some of these examples are given below for 1) the occurrence of *hād* as nominal head in a phrase, and 2) *hād* as part of compound:

(41) a. *ond woruldcundra* ***h****ada//*
under ***h****eofonum, ond* ***h****elwara.*
(christ,11.281.193)

b. ***H****æfde ic//*
h*ēanne* ***h****ād*
(exeter,167.15.699)

(42) a. *þæt þū þīnne* ***m****ægðhād//*
m*eotude brohtes*
(christ,11.287.195)

b. *U wæs* ***g****ēara//*
g*eogoðhādes* ***g****læm.*
(cynew,101.1265.993)

c. ***Is s****ē apostolhād* ***w****īde//*
*ge****w****ēorðod ofer* ***w****erðēoda.*
(cynew,51.14.16)

In (41) a. and b. alliteration falls on the <h> of *hād* (I only give the alliterations relevant for my purpose here) which implies that the first syllable in (41) a. *hāda* is stressed (this

is not surprising as we have an open syllable here), and in b. *hād* itself is stressed. In all cases where *hād* occurs with inflectional endings and is thus disyllabic we must assume that the word bears stress. In the examples (42) a., b. and c. alliteration falls on the first part of the formation, and therefore it can be assumed they are indeed compounds. Although just few examples can be presented here, the examples do show differences with respect to the position of stress. Moreover, in the section on ME more data will be presented from the *Ormulum* that has an extremely regular iambic rhyme schema and is thus more reliable in analysing stress patterns in phrases and compounds. With respect to the structural properties of formations of the type Noun + *hād* and Adjective + *hād* we can now formulate another syntactic criterion:

(43) Syntactic Criterion II: if elements of the type [Noun/Adjective + *hād*] do not show agreement between the head noun and its modifier(s) they must be analysed as word-formations (compounds or derivations).

This criterion is based on empirical evidence and is therefore more satisfying than a conclusion like Marchand's (1969: 293): "[...] -hood is today a suffix, but was like -dom an independent word in Old English [...] Combinations with *hād* as a second-word were thus compounds in Old English."

So far, the formal criteria elicited in chapter 2 were applied to the OE data. First, in syntactic phrases we found agreement between the modifier and the nominal head *hād* whereas agreement in formations looking like compounds with *hād* as second element was absent. Moreover, it was shown that syntactic phrases with the denominal verb *hādian* occur coexisting with the noun *hād* and preceding modifiers. With respect to the semantics it was shown that as long as we have nominal syntactic phrases where *hād* is modified by a noun we find referential interpretation. On the other hand, in formations with *hād* the first element cannot refer to a specific referent. Consequently, OE shows two stages in the development: *hād* can still occur as free morpheme, and it can occur as the head of compounds.

Apart from the formal and semantic criteria we should consider the frequency of occurrence of these formations as well as their productivity. As concerns frequency, the following pattern (Table 4.7) can be observed:

Morphological patterning of hād in OE			
Base	type	token	type/token frequency
N	27	361	0.07
A	4	8	0.5

Table 4.7: *Morphological patterning of hād in OE*

First, the nominal bases occur with a higher token frequency than the adjectival bases. Second, the nominal bases also show a higher type frequency. If the type/token ratio is calculated the value for formations with nouns is 0.07 and for formation with adjectives 0.5. Moreover, we can apply Hay's measure for the relative frequency of bases and their formations. The frequency of occurrence of the bases is given in the column marked with *B* for base in the Tables (4.5) and (4.6), see again above. If these numbers are compared with those for the frequency of the formations we find that all bases occur with (much) higher frequencies than formations with these bases. The relative frequency of for example *bisceop* occurs at a rate of around 2177/1512263[12] whereas *bisceophād* occurs at a rate of around 86/1512263. Ac-

[12] 1512263 presents the total of all tokens in the YCOE.

cording to Hay this finding implies that the higher relative frequency of the base speeds the decomposition route in processing and therefore formations with that base tend to be more decomposable than those whose bases are less frequent. As noted above, in OE we do not find formations of that type. This further implies that all formations presented in the Tables (4.5) and (4.6) are formations dependent of their bases, quite transparent semantically, i.e., not likely to be lexicalised. In the next section, we will survey if the relative frequencies of bases and their formations change. With respect to the criterion of productivity postulated above, we would have to say that *hād* builds a productive series of formations since more than two hapaxes occur which at this points can merely interpreted as an indicator for the development from free to bound morpheme though.
In the next section we will see how the free morpheme *hād* further develops in the following period of time, Middle English.

4.2.2 *-hād/-hōd/-hēde* in Middle English (ME)

In this section I will present Middle English data that are all from the PPCME2. As explained above, the texts included in the corpus can be divided into four time periods (according to the date of the manuscript): M1 1150-1250, M2 1250-1350, M3 1350-1420, M4 1420-1500. In the following we will go through these subperiods of Middle English and see what changes of the element *hād* we can observe, structurally and semantically, and which generalisations we will gain from these observations.

First, let us take a look at the entry for this element in the MED:

> *-hēd(e*(suf.) Also *-hēd, -hiede & -hōd, -hād, -hot(e), -hoþ, -wood* (late) *-hōd*& *-ed, -eth, -id, -od* [OE **-hæde*(umlauted suf. akin to *-hād*) & OE *-hād* In (c), forms in *-hēde* are generally earlier than forms in *-hād, -hōd*.]
>
> A derivational suffix forming nouns: (a) in composition with a noun as simplex, denoting (as in OE) rank or position, but also condition, quality, and (later) activity or qualities typical of the referent of the simplex; e.g., *monkhēde*, *-hōd* [OE *munuchād*], the status of a monk; *kinghēde*, *-hōd*, *kingship*; *prentishēde*, *-hōd*, *apprenticeship*; *develhēde* (transl. L *daemonium*); *childhōd*, *-hēde* [OE *cildhād*], *childhood*; also, *childlike* behavior; *wifhēde*, *-hōd*; *manhēde*, *-hōd*; (b) sometimes replacing other suffixes, such as *-rede* [OE *-rǣden*]; e.g., *brotherhēde*, *neigheborhēde*; (c) in composition with adj. or ppl. to form abstract nouns denoting quality or state; e.g., *dronkenhēde*, *boldhēde*, *continuhēde*, *fairhēde*, *-hōd*, *liklihēde*, *-hōd*, *ōnhēde*, *-hōd*, *sikerhēde*; (d) in nouns of the preceding types which have developed concrete or action senses; e.g., *knighthēde*, coll. a body of knights; *kinghēde*, a kingdōm; *brotherhēde*, members of a fraternity; *afterhēde*, posterity; *childhōd*, a puerile action; *falshēde*, a lie.

First, it should be noted that the semantic development assumed in this book is found: it is said that the element combined with a noun denotes a rank or position as in OE, and that it *later* also denotes qualities typical of the referent of the noun.

What is quite surprising is that the MED gives the form *-hēd(e)* as the head word, although it has been noted in the literature (see e.g. Skeat 1892, Martin 1906 and below) that this form is a variant of the ME form (-)*hōd(e)*, that is regularly derived from OE *hād*. In the entry it is stated that the form is based on a non-attested (pre?)OE form **-hǣde* showing umlaut but there is no evidence for this assumption. Thus, it is not clear to me why the irregular and so far unexplained form is given as the head word (see also discussion below). Moreover, the MED

clearly classifies this element as suffix forming nouns with nominal, adjectival and also, but rare, participial bases, and it further states that combined with adjectives or past participles it occurs earlier than the forms in *-hād*, *-hōd*. From the OE data we have surveyed so far, we clearly see that this assumption is not borne out. Apart from these debatable assumptions, it is not clear at all why *-hād*, *-hōd(e)*, *-hēd(e)* are unambiguously analysed as suffix, since these elements still occur as free element:

> *hōd(e* (n.) Also **hād(e** & *hēde*. Pl. *hōdes*, etc. & (early) *hād, hat*, (dat.) *hādan, hādum*. [OE *hād*. The *hēde-* forms are N & may be from an OE **hēde* or *-hēdu*, perh. under influence of ON (cp. OI *heiðr* honor, worth).] 1. (a) Quality, rank, condition, status; the order of knighthood; (b) holy orders, priest's or bishop's orders, etc.; also, an order as of monks, canons, etc.; (c) one of the orders or choirs of angels. 2. One of the Persons of the Trinity.

As can be seen from the entry, the free element occurs with the same meanings as the allegedly bound form. In the corpus, for M1 we find few examples of *hād* as free morpheme (9 cases with the meaning 'rank of N'). It further occurs in the fixed expression *þreo hād* 'trinity' (no agreement):

(44) Forr Crist iss baþe Godd & mann, **an** **hād** off twinne kinde,...
for *Christ* *is* *both* *God* *and* *man,* *one* *person* *of* *two* *kinds*
(ORM,I,45.463)

(45) ... þe grace of him-seoluen. þe rixleð in **þreo** **hād**.
the *grace* *of* *himself* *who* *reigns* *in* *three* *persons*
(JULIA,127.562)

Further, it occurs in formations with a nominal base which are listed in Table 4.8. In the following, the rightmost column indicates whether a formation has already occurred in the OE corpus (it is henceforth marked with a '+') which implies that these forms are not newly built even if they occurred only once (hapax). In these cases a hapax is not an indicator for a neologism.

Formations with Noun + hād/-hēde in M1				
	M	**B**	**T**	**OE**
maidenhēde	'maiden-state'	438	122	+
widewehēde	'widow-state'	37	7	+
childhēde	'child-state'	785	4	+
sothēde	'fool-state'	41	3	
spushēde	'spouse-state'	96	3	
clerichād	'clergy-rank'	236	2	+
monkhēde	'monk-rank'	178	2	+
wedlachād	'wedlock-state'	29	1	
Total			144	

Table 4.8: *Formations with Noun + hād/-hēde in M1*

We also find one instance of the type Adjective + *hād* in M1 given in 4.9, p. 57.
All formations shown in Tables 4.8 and 4.9 lack inflectional agreement. Therefore, they are clearly not phrases. We will discuss below whether the status of compound can be attributed to them.

Formations with Adjective + hād/-hēde in M1				
	M	**B**	**T**	**OE**
wrecchehēde	'wretched-state'	127	5	
Total			5	

Table 4.9: *Formations with Adjective + hād/-hēde in M1*

As noted above, the different stress patterns of the free element and formations with this element in poetic texts may tell us something about its status: the *Ormulum*, a poetic text from Early Middle English is written in extremely regular 15 syllable unrhymed iambic lines with a caesura after the 8th syllable and thus serves well to define whether elements are stressed or not. More precisely, due to the fact that Orm's spelling system and his iambic metre is so consistent, we could use them as criteria to determine the status of the noun *hād* when it occurs on its own and when it occurs as the determinatum of a compound (a stressed syllable is indicated with an acute here). Sauer (1992: 230) notes that the spelling of *dōm* reveals its phonological status: the vowel in *dōm* must have been long at that time, otherwise he would have written *dōmm* which, however, does not occur at all (see chapter 4.3). Thus, the phonological reduction to [dəm] must have occurred later in the ME period. This criterion can also be applied to the examples with *hād* above: since *hād* is spelt with one final consonant, the vowel in closed syllables must be analysed as being a long vowel.

Also note that Orm consistently marks inflectional suffixes on nouns (*widdwess*) and verbs (*lesenn*) as being short and unstressed which means that he does not violate grammatical rules despite his strict metre. The question is whether this also applies to derivational suffixes. Let us take a look at the text:

(46) *Þatt hé wass báþe Gódd & mánn,*
An hád, tatt shóllde lésenn
Mánnkìnn off hélle, & gífenn ménn
To wínnenn héffness blísse. (ORM,II,260.2586)

(47) *Nan wímmann þátt forr lúfe off Gódd*
I méggþhād wóllde líbbenn, (ORM,I,77.687)

(48) *Forr mággdennhád & wíddwesshád,*
ȝiff þátt itt íss rihht cléne (ORM,I,85.757)

With respect to metre, the examples show that *hād* as free morpheme is stressed[13] whereas in formations like *maggdennhād* it depends on the position where the formation occurs (see the contrast between (47) and (48)). According to Minkova (1996), in the fourth foot of the first half-line there is reliable and unambiguous matching between metric and prosodic prominence (about 90% of the time the fourth-foot ictus is filled by a monosyllable). Thus, in (48) it is clearly stressed since *hād* occupies exactly this position. In the other case (most frequent case) it is in an unstressed position. It seems then that with a metre like Orm's we can determine that *hād* as determinatum may bear stress implying that it still was a free word at that time.

The examples show that *hād* in formations like *maggdennhād* is clearly not stressed in both examples whereas the free morpheme *hād* in (48) is. Thus, this element behaves differently in

[13] This is true for all cases (8) found in the *Ormulum*.

different contexts: as free element it bears primary stress, as the second element in formations it does not bear stress. Hence, looking at texts like the *Ormulum* with a very strict metre may reveal information about the morphological status of elements.

Since the goal of this book is to describe and analyse the development of suffixes the several stages of this development will be compared. Thus, the findings from OE will be compared with the findings from ME with respect to the formal and semantic properties of the formations found. Moreover, frequency of occurrence is also relevant in this development. What we will assume is that those formations found in OE are known to the speaker in ME, i.e., the OE data could function as a kind of lexicon for ME (see also Cowie 1999 and Scherer 2003). This procedure will also be applied to the other stages (and given in the tables as noted above): formations found in OE and ME are known to the speaker of ENE, and formations found in OE, ME, and ENE are known to the speaker of ModE. We will see below that this procedure sometimes shows that a hapax formation, which is synchronically taken to be a newly built form, cannot count as a neologism since the formation occurred before (with higher frequencies). Therefore, in the following we mainly compare type and token frequencies of formations occurring in the stages of English. We will also tentatively try to say something about the relative frequency of the formations found. For example, we could compare the relative frequency of *mægðhād* in OE and *maidenhēde* in M1: it was shown above that the base *mægð* occurred with a much higher frequency than the formation (402/22). The base *meiden* in M1 also occurs with a higher frequency than the formation with that base (438/122). This finding shows that the relative frequency does not vary through time, but this is what we expected to find[14]. Therefore, the relation between the frequency of the base and the formation with that base at a certain point in time cannot be applied diachronically. We expect to find the same result with the other two elements, *-dom* and *-ship*.

If the formations are surveyed in more detail some observations can be made: an interesting case is *spushād* because it has a non-native base (from OF *spouse* 'married-state') and therefore it shows that *hād* must have been analysed by the speaker as a word-formation element, at least to some degree.

(49) þe sunfulle. Men. þet **spushād** brekeð.
the sinful men that marriage break

(LAMB1,143.310)

Formations with low frequencies are, e.g., *clerichād* (2 occurrences) and *wedlachād* with only one occurrence (hapax). They can be found in the following contexts:

(50) He wæs on his **clærchāde** biscop on Scesscuns;
he was in his clerical-order bishop in S.

(PETERB,49.214)

(51) gef of þes þreo-hat. Meiðhād & widewehād. & **wedlachād**
if of these three states maidenhead and widowhood and state-of-being-married
wedlac is þe ðridde; þu maht bi þe degrez of hare blisse i-cnawen.
marriage is the third you might by the degree of their bliss know

---

[14] This finding is also statistically founded. With the help of Harald Baayen, I gained the relevant statistical frequency measures showing that stem frequency does not vary with age but only with affix.

hwuch & bi hu muchel; þe an. passeð þe oþre.
which and by how much the one passes the other

(HALI,144.241)

The formation in (50) has the meaning 'order of a clerk', the second formation has the meaning 'married-state'. Note also in (51) the use of the free element *hād* (here appearing as *hat* in the plural): it is clear from the context that it denotes conditions or qualities.

It can further be observed that most of the formations have a nominal base, only *wrecchehēde* (*wrecche*[15] = 'miserable') has an adjectival base denoting the 'state of being misfortunate'.

(52) Wes næure gæt mare **wreccehēd** on land ne næure hethen men werse
was never yet more misfortune in land NEG never heathen men worse
ne diden þan hi diden.
NEG did than they did

(PETERB,56.462)

The morphological patterning for all formations in M1 is given in Table 4.10 below:

Morphological patterning of hād/-hēde in M1			
Base	type	token	type/token frequency
N	8	144	0.05
A	1	5	0.2

Table 4.10: *Morphological patterning of hād/-hēde in M1*

What we see is that with respect to the type Noun + *hād* a high token frequency occurs, especially compared to the type Adjective + *hād*. Some of these formations are established and thus occur with high frequencies. Others like *wedlachād* occur only once and have not been established yet. All formations of this type denote either an office/rank or a state/condition. As concerns the type Adjective + *hād* we find one type with a frequency of occurrence of 5. This formation also denotes a state.

In the M2 period (1250-1350) *-hād* no longer occurs but only formations with the forms *-hēd(e)* and *-hōd*. With respect to phonological changes we can state the following:

(53) Phonological facts: OE *hād* [ha:d] develops into ME *hōd* [hɔ:d] (which in Late ME develops into [ho:d] and then during the Great Vowel Shift into [hu:d]; the long vowel was shortened which results in ModE [hʊd][16]; we find a form coexisting with *hōd*, *hed(e)* [he:d], that seems to be a cognate from Old Saxon.

What is striking in that period is that suddenly a high number of formations with adjectival bases appear, i.e., a series of productively built forms (morphologically some of them are participles like *blyssed* but they function as adjectives). This is shown with Table 4.11 (p. 60). A number of examples for these formations are given in (54) to (58).

(54) þer opwexeþ alle guodes. **uayrhēde**. richesse. worþssipe. blisse. uirtue.
there grows all good, beauty, richnesse, honour, bliss, virtue

(AYENBI,75.1436)

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[15] The MED notes that *wrecche* could be both a noun and an adjective; in the contexts where *wrecchehēde* occurs, however, the base is adjectival.

[16] see also Hogg 1992 and Markus 1990.

Formations with Adjective + -hēde/-hōd in M2				
	M	**B**	**T**	**OE**
fairhēde	‘fair-state’	377	40	
foulhēde	‘foul-state’	443	13	
driehēde	‘three-state’	382	6	
ōnhēde	‘one-state’	2022	6	
evenhēde	‘even-state’	14	5	+
onworþhēde	‘unworthy-state’	31	4	
wrecchehēde	‘wretched-state’	127	4	
bysihēde	‘busy-state’	19	4	
falshēde	‘deceitful-state’	355	4	
wickedhēde	‘wicked-state’	258	3	
grenhēde	‘green-state’	47	3	
muchelhēde	‘plenty-state’	114	3	
drunkenhēde	‘drunken-state’	22	2	
wodhēde	‘mad-state’	31	2	
namecuthhēde	‘renown-state’	–	2	
biterhēde	‘bitter-state’	81	2	
fullhēde	‘full-state’	616	2	
quedhēde	‘wicked-state’	89	2	
blisfulhēde	‘blissful-state’	66	1	
felhēde	’‘false-state’	6	1	
litelhēde	‘little-state’	469	1	
nesshēde	’soft-state’	8	1	
softhēde	‘soft-state’	67	1	
onlepihēde	‘singular-state’	20	1	
fathēde	‘fat-state’	28	1	
stefhēde	‘strong-state’	1	1	
wīshēde	‘wise-state’	184	1	
melishēde	‘mellow-state’	–	1	
swifthēde	‘swift-state’	11	1	
sotilhēde	‘subtle-state’	47	1	
sōrthēde	‘short-state’	124	1	
werihēde	‘weary’	29	1	
ferlichhēde	‘eager-state’	10	1	
soþhēde	‘true-state’	24	1	
blyssedhēde	‘blessed-state’	197	1	
Total			124	

Table 4.11: *Formations with Adjective + -hēde/-hōd in M2*

(55) þe on is **voulhēde**. þe oþer: **wodhēde**. þe þridde: renoyrye.
the one is foulness the other: madness the third: denial

(AYENBI,17.257)

(56) Ich abode hym þat made me sauf of my **litelhēde** and of þe
I awaited him that made me safe of my littleness and of the
persecucioun of þe gost.
persecution of the spirit

(EARLPS,65.2833)

(57) for þou iugeþ þe folk in **euenhēde**,
for thou judgest the people in equality

(EARLPS,77.3378)

(58) uor charite ne is non oðer þing þanne dyere **ōnhēde**.
for charity not is no other thing than dear unity

(CMAYENBI,79.1534)

Skeat (1892) and Martin (1906) assume that this form may have been borrowed from a continental Germanic dialect, probably Frisian, and that in ME two different *-hēd(e)* suffixes exist, a native and a borrowed one. This claim is based on the assumption that in ME the suffix "suddenly" also attaches to adjectives whereas in OE it could only be attached to nouns. This assumption is highly problematic, because as was shown in detail above, in OE two coexisting patterns are found, Noun + *hād* and Adjective + *hād*. Both patterns are the sources of later formations with the suffix *-hood* (contradictory to Skeat and Martin). I repeat some of the examples given above:

(59) Þære tīde þær on Cent heold Honorius **[þone**$_{\textbf{Acc,Sg.}}$ **arcebysceophād**$_{\textbf{Acc,Sg.}}$**]**,
there time there on Kent held Honorius the archbishop office

(Bede_5:17.452.23.4545)

(60) Þā ðe hēr swīðost gālpettað & on **unrihthādum** on oferfyllo
those who here most live-in-gluttony and in wicked state on overflow
bioð forgrīwene, þā bioð þær on mæstum hungre forþrycced.
are sinking those are there on most hunger pressed

(HomU_9_[ScraggVerc_4]:38.565)

It is evident, that the occurrence of *-hēd(e)* cannot be linked to a sudden rise of adjectival forms in ME. What could be maintained is that *-hēd(e)* had been borrowed (as part of a simplex) from a continental Germanic dialect. We will come back to this assumption below.

An alternative assumption which is found in the MED entry (see above) is that the *-hēd(e)* suffix is a northern variant of ME *-hōd(e)* under the influence of Old Norse:

> [OE hād. The hēde- forms are N & may be from an OE *hǣde or -hǣdu, **perh. under influence of ON (cp. OI heiðr honor, worth)**.]

As stated here this implies that OE *hād* changed to a non-attested form *hǣde* (raising) due to ON influence, and this results in a ME form *-hēd(e)*. If this assumption were correct, we would expect to find the element more frequently in northern texts than in southern texts in ME. More precisely, we would expect to find it in dialects of the Danelaw (Northern, East Midlands). An investigation of all ME texts in the *The Penn-Helsinki Parsed Corpus of*

-hēde forms in ME texts					
Text	**Date**	**Dialect**	**Genre**	**Tokens**	**Types**
peterb	M1 (1150-1250)	EM	Hist.	1	1
ayenbi	M2 (1250-1350)	K	Rel. treat.	83	33
earlps		EM	Bible	28	11
kentse		K	Homil.	1	1
benrul	M3 (1350-1420)	N	Rule	3	2
ctmeli		EM	Philos. /Fiction	2	2
ctpars		EM	Rel. treat.	2	2
edmund		WM	Rel. treat.	13	3
horses		S	Handb.	2	2
mandev		EM	Travel.	1	1
polych		S	Hist.	5	3
purvey		S	Rel. treat.	3	3
wycser		EM	Serm.	81	9
capchr	M4 (1420-1500)	EM	Hist.	2	2
capser		EM	Serm.	1	1
edthor		N	Rel. treat.	23	7
gaytry		N	Serm.	9	6
innoce		EM	Serm.	2	2
julnor		EM	Rel. treat.	7	4
kempe		EM	Rel. treat.	10	3
malory		WM	Rom.	2	2
mirk		WM	Serm.	9	4
reynar		EM	Fict.	2	2
reynes		EM	Handb.	1	1
rollep		N	Rel. treat.	7	4
rolletr		N	Rel. treat.	24	4
siege		WM	Rom.	1	1
vices		EM	Rel. treat.	2	2

Table 4.12: *-hēde forms in ME texts*

Middle English, Second Edition (Kroch & Taylor 2000)[17] shows the distribution of *-hēd(e)* as given in Table 4.12.

From the 55 texts in the corpus, 28 texts show the form with different frequencies. 5 texts are N (6, 83%) , 14 are EM (27, 52%), 4 WM (14, 28%), 2 K (3, 83%), 3 S (5, 60%). This finding is a problem for the analysis because although *-hēd(e)* occurs in a number of texts from the northern and East Midlands areas it also occurs in texts from the West Midlands, southern and Kentish areas. A further problem is that the Kentis h text the *Ayenbite of Inwyt* shows the highest frequency of formations with *-hēd(e)*. How can this observation be explained? We need to take a closer at this text.

Dan Michel, the author of the *Ayenbite of Inwyt* ('Remorse of Conscience') was a monk in the cloister of Saint Augustine's, Canterbury, where he completed the manuscript of the

[17] For full names of texts given in the table see the appendix, for more information on the texts see http://www.ling.upenn.edu/hist-corpora/PPCM2-RELEASE-2/index.htm.

Ayenbite of Inwyt on 27 October 1340. The work is a prose translation[18] of the *Somme le roi* (1279) by the French friar Lorens. The work is unique in providing an example of a ME dialect in an original copy whose date, author and place of writing are exactly known:

> þis boc is dan Michelis of Northgate/y-write an englis of his oʒene hand. þet hatte: Ayenbite of inwyt. And is of þe bochouse of saynt Austines of Canterberi.
> (author's preface)

> þis boc is uolueld ine þe eue of þe holy apostles Symon an Iudas/of ane broþer of þe cloystre of sanynt Austin of Canterberi/Ine the yeare of oure lhordes beringe 1340.
> (end of text)

The text follows the long tradition of didactic and confessional literature. Dan Michel translated the text into English so that those unable to understand Latin could be reached and edified. Linguistically, the text shows a number of properties typical for the Kentish (K) dialect at that time (see Gradon 1979, Freeborn 2006): First, we find initial voicing of fricative consonants: K *uram* 'from', *zuo* 'so'; Second, the OE vowel [æ] is K [ɛ/e] (OE *þæt* > K *þet*) or the OE vowel [y] is K [e] (OE *scyrte* > K *sserte*). Another observation is that the third person plural forms *þai*, *þer*, *þam* (OE *hi*, *hira*, *him*) are not used. Let us take a closer look at the text:

> Extract from the **Ayenbite of Inwyt**
> Þe vifte boʒ is þe **bysihēde** of glotuns þet ne zecheþ bote to þe delit of hare zuelʒ. Þise byeþ propreliche lechurs þet ne zecheþ bote þet lost of hare zuelg. Ine þri þinges nameliche liþ þe zenne of zuyche volke. Verst ine þe greate **bysihēde** þet hy habbeþ to prochaci and to agraiþi. Efterward mid grat lost þet hy habbeþ ine þe us.

> La quinte branche (est) la curieuseté des glotons qui ne quierent fors a lor palais deliter. Cil sont proprement leccheor qui ne quierent fors les deliz de lour goule. En iij choses nomeement gist lis pecchiéz de tieus genz. Premierement en la grant cure qu'ils ont en porchacier e appareillier. Aprés ou grant delit qu'il ont en user. (from Mossé 1969: 252)

We see that initial voicing of consonants as well as the raising of the OE back low vowel [a:] to [ae:] occurs as e.g. in *þet*. With respect to the word-formations found with *-hēd(e)*, two occurrences of *bysihēde* can be found. By comparing the text with its source we see that *bysihēde* is a calque of Old French *curieuseté* and *cure*, so Dan Michel clearly used the word-formation inventory of his native language to build native words for these concepts (we can exclude borrowing of a suffix and in general foreign influence of native morphology). Apart from formations with *-hēd(e)*, a number of formations with (-)*hōd(e)* (16 tokens, 4 types: *spoushōd*, *manhōd*, *wodewehōd*, *knyʒhōd*) also occur[19].

To summarise our brief survey of the ME texts, the following observations speak in favour of Old Norse influence: First, a number of texts from the East Midlands and North show the *-hēd(e)* suffix (19 of 28 texts), the *English Wycliffite Sermons* display the highest frequency (81 tokens). Second, according to Gradon (1979: 62) an irregular plural form in *-e* appears as in *þinge* and *ziþe* which cannot be derived regularly. She further notes that these forms also occur in the *Ormulum* which is heavily influenced by Old Norse. There are also a number

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[18] Although in the literature there has been some debate, it is generally assumed that the translation is his own.

[19] Interestingly, the *-hēd(e)* formations predominantly occur with adjectival bases whereas the *-hōd(e)* formations all show nominal bases.

of observations speaking against Old Norse influence, namely, first that a number of texts clearly not belonging to the Danelaw dialects show the *hed(e)* form. Second, the mutation mentioned here could be the phonological change of OE [æ] to K [ɛ/e] (see also OED).

> The suffix *-hed(e)* ... could represent a mutated form of the OE suffix *-had*, or be due to the influence of *-rede* (Gradon 1979: 58)

This study shows that the *-hēd(e)* form, which cannot be regularly derived from ME *-hōd(e)*, cannot be explained satisfyingly by either of the analyses. I agree with Dalton-Puffer (1996: 77) in assuming that the element *-hēde*, which by that time has the status of a suffix, is an "irregular" form of the regular *-hōd(e)*. The claim that *-hēde* (and also *-hōd*) have the status of a derivational suffix can be corroborated if we take the productivity of that pattern as a diagnostics for the status of these elements. This claim can further be strengthened by the fact that the semantics of this pattern consistently is 'state of being A' implying that adjectives are no longer predicatively used in these formations.[20]. Thus we could further state that as soon as the predicative use of adjectives disappears the only possible meaning is the salient meaning 'state of being A'. In chapter 5 it will be argued that a similar development applies to the nominal pattern. Note that this property is not attributed to the special form *-hēde* alone but in general to all ME variants deriving from OE *hād*. Why the form *-hēd(e)* form starts to occur (due to borrowing and/or regular phonological processes) and why it starts to do so with adjectival bases is a matter that has to be resolved in future research. Nevertheless, it is evident, that the occurrence of the form and its properties can only be explained by taking several factors into account.

If the token frequencies of the bases and its formations are compared (see again Table (4.11, p. 60) we find that all bases occur with (much) higher frequencies than formations with these bases. There are two exceptions: the OE bases *namecuth* 'famous' in *namecuthhēde* and *melish* 'mellow' in *melishēde* do not occur in the corpus. In line with Hay's assumption we assume that the formations are stored as such (the whole word route wins out in processing) and the formations show a fair degree of lexicalisation.

As concerns the type Noun + *-hēde/-hōd* the formations listed Table 4.13 (p. 65) occur in M2. Compared to OE and M1, bases denoting offices of persons are less frequent and the meaning is less prominent. Although two bases – *knight* and *prince*[21] – occur that seem to fall into this category both nouns denote noble ranks restricted to birthright. In chapter 5 the distinction between properties of stages and enduring properties of persons (stage-level and individual-level predicates) will be applied to the data to explain the development from a lexical-semantic perspective.

As concerns the Criterion of Frequency, *godhōd* occurs with the highest token frequency in the table, but compared to the token frequency of its base it shows a high degree of decomposability. Since it occurred in OE we take it to be a formation known to speakers of ME. Formations that have not occurred in the OE corpus are *broþerhēde*, *barnhēde*, *onlusthēde* and *princehēde*. Although *knighthēde* occurs as hapax here it has occurred in OE and therefore is a known formation according to our assumptions made.

Note that we find a synonym for *childhēde* but with a foreign (Scandinavian) base. Since the text by Richard Rolle was written in the northern part where Scandinavian influence was

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[20] For a similar statement see Dalton-Puffer (1996: 80).

[21] Also note that *prince* is an Old French base attaching to the native element *-hēde*. Like the Scandinavian *barn* it shows that the writers must have analysed *-hēde* as word formation element.

Formations with Noun + -hēde/-hōd in M2				
	M	**B**	**T**	**OE**
godhēde	'god-state'	7892	17	+
manhēde	'man-state'	9041	14	
spoushōd	'spouse-state'	96	11	
maidenhēde	'maiden-state'	438	10	+
childhed	'child-state'	785	6	+
onlusthēde	'idleness-state'	3	3	
widewehōd	'widow-state'	37	1	+
worðshiphēde	'honour-state'	134	1	
broþerhēde	'brother-state'	391	1	
barnhēde	'child-state'	43	1	
knighthēde	'knight-rank'	32	1	+
princehēde	'prince-rank'	181	1	
onwythēde	'fool-state'	3	1	
uncunninghēde	'uncunning-state'	3	4	
Total			72	

Table 4.13: *Formations with Noun + -hēde/-hōd in M2*

quite intense it is not surprising that an element like *barn* occurs. This, however, implies that the writer decomposed formations with *-hēde* and built the formation *barn* + *-hēde* to denote the 'state of a barn', well aware of the fact that *-hēde* is a word-formation element. As concerns the formation *childhēde* in ME it denotes 'the stage of life from birth to puberty', i.e., the metonymic shift to 'time' occurs due to the nature of the base *child*. Further, it may also denote a childlike, foolish act. The examples below show the formation *barnhēde*, and the examples for *childhēde* illustrate the two meanings discussed:

(61) And what wrechednes it es, to have þe name and þe habet of halynes,
and what wretchedness it is to have the name and the habit of holiness
and be noght so, bot cover pride, ire, or envy under þe claþes of
and be not so but cover pride, anger or envy under the clothes of
criste **barnhēde**!
Christ's childhood

(ROLLEP,88.397)

(62) alse seint iohan baptist. þe on his **childhōde** bicom eremite and hield
also saint Johan baptist who in his childhood became eremite and went
forð þerone;
forth therein

(TRINIT,85.1129)

(63) ac zeþþe ich com to elde of uol man: ich uorlet alle mine
but after I came of age of foolish man I lost all my
childhēdes.
foolish-states

(AYENBI,259.2431)

The base in the formation *worþssiphēde* used to be the formation *worðship*. Since it is used here as a base and since the base *worð* of *worðship* only rarely occurs in ME (6) it must have been analysed as one word denoting the 'state of reputation':

(64) þis zenne / anhegeþ: and logeþ. by þe hōdes. and þe
this sin grows-greater and lies by the nature and the
worþssiphēde.
status-of-reputation

(AYENBI,49.853)

This also applies to the formation *uncunninghēde*: it occurs more often than the base *uncunning* and is analysed by the speaker as one word.

From what was shown with the data, it is very plausible to assume that at M2 *hād/-hēde/-hōd* has developed into a suffix, i.e., the once free morpheme has undergone the morphologisation into a bound morpheme. Especially two findings speak for this analysis: 1. the high number of formations with an adjectival base occurring only once, (productive series of newly coined formations, see the criterion of productivity); 2. formations of the type Noun + *hād/-hēde/-hōd* predominantly denote 'state of N', and the salient meaning 'office of N' is less prominent in newly built formations; 3. formations of the type Adjective + *hād/-hēde/-hōd* predominantly denote 'state of being A'. These findings are in line with the criteria characterising suffixhood.

The morphological patterning of all types of formations found in M2 is given below:

Morphological patterning of -hēde/-hōd in M2			
Base	type	token	type/token frequency
N	13	72	0.19
A	34	112	0.29
NUM	2	12	0.16

Table 4.14: *Morphological patterning of -hēde/-hōd in M2*

In the period of M3 we find the formations of the type Noun + *-hēde/-hōd* listed in Table 4.15 (p. 67).

Since the form *-hood* now co-occurs with *-hōd* (and *-hēde*) we have to assume that at this stage *-hōd* has undergone another systematic phonological change (Great Vowel Shift) that could be stated as follows:

(65) Phonological facts: ME *-hōd* [hɔ:d] develops into Late ME [ho:d], the spelling *-hood* starts to occur. The variant *-hēde* [he:d] also still occurs.

The most frequent formations are *manhood* and *godhood*. They have occurred before and seem to be established elements. If the token frequencies for these formations are compared in M2 and M3 we see that in M3 both occur with higher frequencies which implies that they gradually move towards the loss of decomposability. As concerns the meaning of the two formations the bases *man* and *god* denote individuals with enduring properties and therefore the formations have the meaning 'state of man/god'. This is illustrated with the example below:

Formations with Noun + -hōd/-hood in M3				
	M	**B**	**T**	**OE**
manhood	'man-state'	9041	70	
godhood	'god-state'	7892	53	+
maidenhood	'maiden-state'	438	19	+
childhood	'child-state'	785	9	+
brotherhood	'brother-state'	391	7	
knighthood	'knight-rank'	32	5	+
fatherhood	'father-state'	916	4	
priesthood	'priest-office'	623	3	+
widowhood	'widow-state'	37	2	+
motherhood	'mother-state'	563	2	
princehood	'prince-rank'	181	1	
youthhood	'youth-state'	25	1	+
Total			176	

Table 4.15: *Formations with Noun + -hōd/-hood in M3*

(66) In þat synod it is i-seide þat in Crist beeþ tweie willes and tweie
in that synod it is said that in Christ is two wills and two
kyndes, willes and kyndes of þe **Godhēde** and **manhēde**.
kinds wills and kinds of the deity and manhood

(POLYCH,VI,131.903)

In example (66) we find two formations with the suffix *-hēde*, *Godhēde* and *manhēde*. The context "... tweie willes and tweie kyndes" makes it clear that in both cases the scribe talks about the 'state of N', i.e., *Godhēde* and *manhēde* denote the state of being God and the state of being a man, so both have a resultative reading.

The formation *youthhood* that has already occurred in OE denotes the 'state of being young' in the following context:

(67) þai ne salle noht tine þaire ordir for **yughed**.
they NEG shall not refuse their office because-of youthhood

(BENRUL,41.1301)

This shows that there is a connection between the formations with nominal and those with adjectival bases. Here the noun *youth* + *-hood* does not denote a state as such (state of youth) but a person who has the quality of being young.

Formations like *broþerhēde* may denote a collectivity in certain contexts, as shown below:

(68) Whan men biddeþ an abbot þe bred of his abbey, men biddeþ hym part
when man bids an abbot the bread of his abbey man bids him part
of his **broþerhēde** and part and companye and rigt in alle þe goodes of
of his brotherhood and part and company and right in all the goods of
þe hous;
the house

(VICES4,109.233)

Since the formation denotes 'a fraternal relationship between members of a fraternal organisation' (MED) it may metonymically shift to the fraternal organisation itself. In the MED it is also noted that, apart from a resultative reading, an activity reading is possible:

(69) I commend me to yowe, thankand yowe hertly of all your goode
I commend me to you thanking you heartily of all your good
brotherhēd, and grett labour, …
brotherhood and great labour

(MED; (1441) Let.Coldingham in Sur.Soc.12,116)

Apart from formations with nominal bases we further find a number with adjectival bases in the corpus. They are given in Table 4.16:

Formations with Adjective + -hēde/-hōd/-hood in M3				
	M	**B**	**T**	**OE**
falsehood	'false-state'	355	12	
onehood	'one-state'	2022	4	
evenhood	'even-state'	14	2	+
manyhood	'many-state'	1565	2	
driehood	´three-state'	382	1	
rawhood	´raw-state'	2	1	
rankhood	'rank-state'	3	1	
stablehood	'stable-state'	29	1	
muchelhood	'much-state'	114	1	
fiercehood	'fierce-state'	9	1	
poorhood	'poor-state'	113	1	
Total			27	

Table 4.16: *Formations with Adjective + -hēde/-hōd/-hood in M3*

If the tables for M2 and M3 are compared we find that in M3 the type Adjective + *-hēde/-hōd* is less frequent than the nominal type, i.e., the situation is reversed compared with M2. Dalton-Puffer (1996: 79) states

> In ME3 the picture looks much more like M1 again, though not quite. It seems as if things were slowly settling down to the old order after a period of upheaval.

The formation that occurs most frequently in this period is *falsehood* (12). Formations that have not occurred so far are *rawhood*, *rankhood*, *stablehood*, *fiercehood* and *poorhood* examples of which are given below:

(70) And when þou hast a good hors at þin owen wille loke þat þou be
and when thou hast a good horse at thine own will look that thou be
warre bi-tyme þat he take not harme þroug **rauhēde** of blode
aware by time that he takes not harm through abnormal-quality of blood

(HORSES,87.31)

(71) & þou perceyue **ranckehēde** of blod. in his neckeveyne let him blede
and thou perceive excess-state of blood in his neckartery let him bleed
wel.
well

(HORSES,93.86)

(72) but þere is more **stablehēde** in wordis þat ben seyde of Crist
but there is more permanence in words that been said of Christ

(WYCSER,332.1884)

(73) Then when þat Herod, kyng of Ierusalem, knew þe **fiercehoodwfershōde** of
then when that H. king of I. knew the fiercehood of
Pylat, he send aftyr hym,
P. he send after him

(MIRK,121.3268)

(74) For if I sall with **pouerhēde** lofe Godd þe Fadyr, and lufe Hym
because if I shall with poverty love god the father and love him
and serue Him
and serve him

(EDTHOR,34.443)

In all the examples the formations denote qualities of animate objects (blood, person) and inanimate objects (words). At this stage *-hēde/-hōd/-hood* is a well established element to build formations denoting the 'state of being A'. In (74) it should be noted that the adjectival base is of OF origin (*povre*). It is one of the many formations occurring with OF bases in ME (see below) that is further evidence for the fact that *-hēde/-hōd/-hood* is a suffix.

The morphological patterning of all formations found in M3 is given in Table 4.17.

Morphological patterning of -hēde/-hōd/-hood in M3			
Base	type	token	type/token frequency
N	12	176	0.06
A	11	27	0.40

Table 4.17: *Morphological patterning of -hēde/-hōd/-hood in M3*

Compared to the patterning of the formations in M2 we find a decrease of both patterns, but compared to M1 we find a similar pattern. Thus, this finding is in line with the findings from Dalton-Puffer.

With respect to the forms of the suffix that occur in this period the texts from the M4 period resemble the texts from period M3: there are some new formations with *-hēde*, *-hōd* and *-hood* and a number forms gradually being lexicalised. First, let us take a look at the type Noun + -hēde/-hōd/*-hood*.

Table 4.18 (p. 70) shows that *manhood* and *godhood* are the formations with the highest frequencies in M4. For the latter formation we not only find the resultative reading 'nature of God' but also an object reading 'a representation of God in carving, painting, or the like' (MED). One example from the MED is (75):

(75) A sotelte: A **godhēde** in a son of gold glorified above; in the son the
a subtlety a godhood in a son of gold glorified above; in the son the
holy giste voluptable.
holy ghost voluptable

(c1450 Hrl.Cook.Bk.(2) (Hrl 4016) 69)

The only formation having not occurred so far here is *leperhood* denoting 'state of being a leper' in (76).

Formations with Noun + -hēde/-hōd/-hood in M4				
	M	**B**	**T**	**OE**
manhood	‘man-state’	9041	43	
godhood	‘god-state’	7892	34	+
knighthood	‘knight-rank’	32	23	+
maidenhood	‘maiden-state’	438	17	+
childhood	‘child-state’	785	15	+
brotherhood	‘brother-state’	391	6	
widowhood	‘widow-state’	37	1	+
priesthood	‘priest-office’	623	2	+
fatherhood	‘father-state’	916	2	
motherhood	‘mother-state’	563	2	
barnhood	‘child-state’	43	1	
leperhood	‘leper-state’	25	1	
Total			147	

Table 4.18: *Formations with Noun + -hēde/-hōd/-hood in M4*

(76) And for one grutched ayenst theyr mayster Moyses, the whiche was
and because one protested against their master Moses, the which was
but Pedagogus, the chosen woman moost accepte, Maria,
nobody-greater-than Pedagogus the chosen woman mostly accepted Maria
Aaron’s sister, was smytten of God with the infyrmyte of **leprehōde**.
Aaron’s sister was afflicted by God with the disease of leperhood
(INNOCE,8.124)

Formations with Adjective + -hēde/-hōd/-hood in M4				
	M	**B**	**T**	**OE**
fairhood	‘fair-state’	377	11	
falshood	‘false-state’	355	9	
onehood	‘one-state’	2022	7	
fullhood	‘full-state’	616	4	
manyhood	‘many-state’	1565	2	
likelihood	‘likely-state’	3	2	
poorhood	‘poor-state’	113	1	
muchelhood	‘much-state’	114	1	
evenhood	‘even-state’	14	1	+
drunkenhood	‘drunken-state’	22	1	
fiercehood	‘fierce-state’	9	1	
driehood	‘three-state’	382	1	
Total			41	

Table 4.19: *Formations with Adjective + -hēde/-hōd/-hood in M4*

Formations of the type Adjective + *-hēde/-hōd/-hood* in M4 are given in Table 4.19. The formation with the highest frequency is *fairhood*. Most other formations occur with only a very low frequency. *Likelihood* with a frequency of occurrence of 2 has not occurred so far in the corpus. It occurs in the following contexts:

(77) or by **lyckely hōde** they wold have made a newe fraye.
or by likelihood they would have made a new attack

(GREGOR,205.1747)

(78) … that there couthe no man passe ovyr hyt by **lyckely hōde** but he shulde be hurte.
… that there could no man pass over it by likelihood but he should be hurt

(GREGOR,213.1965)

These occurrences of *likelihood* are from the same text and spelt in two different words. Nevertheless, it is one form with one meaning, and moreover it is the first formation occurring here with a derived adjective as base.
The morphological patterning of all formations in M4 is given in Table 4.20, and Table 4.21 (p. 72) is a summary of all formations with nouns in ME.

Morphological patterning of -hēde/-hōd/-hood in M4			
Base	type	token	type/token frequency
N	12	147	0.08
A	12	41	0.3

Table 4.20: *Morphological patterning of -hēde/-hōd/-hood in M4*

If the findings of the four subperiods are compared as in Table 4.22 (p. 72) we find that from M1 to M2 there is an increase for both types, the nominal and the adjectival one. The type/token ratio for the nominal type decreases in M3. This does not apply to the adjectival type although by looking at the number of types only, M2 is clearly the period with the most types occurring in the texts under investigation. This finding bears also on the differences in the type/token ratios of OE and ME (see Table 4.23, p. 73).

As noted above, a ratio of 0.5 for the adjectival type in OE resulting from few types and tokens does not tell much. However, the total of 30 types and 197 tokens in ME with a type/token ratio of 0.15 does. These values are due to the high frequency of newly built forms in M2. It is also in M2 that we have sufficient evidence to claim that *-hēd/-hōd/-hood* has developed into a suffix. It was noted above that one strong piece of evidence is the occurrence of these formations with non-native bases. Since in ME we find strong OF influence on the lexicon we also find a number of OF bases, nominal and adjectival (from the MED): *caitifhēde* (OF *caitif* 'captured'), *continuehēde* (OF *continue* 'repeated'), *gentilhēde* (OF *gentil* 'noble'), *grevoushēde* (OF *grevous* 'severe'), *liberoushēde* (OF *liberaus* 'lecherous'), *noblehēde* (OF *noble* 'noble'), *povrehēde* (OF *povre* 'poor'), *traitourhēde* (OF *traitour* 'betrayer'). Thus, the analysis of the data by means of the formal and semantic criteria and frequency has shown that OE *hād* gains suffixal status in ME.

4.2.3 *-hēde/-hōd/-hood* in Early Modern English (ENE)

In this section we will discuss the occurrence of the suffix *-hood* in ENE. The data is divided into three periods (according to the division of the PPCMEME: E1: from 1500 - 1570; E2: from 1570 - 1640; E3: from 1640 - 1710. The formations of the type Noun + *-hood* are given in Table 4.24, p. 73.

Formations with Noun + hād/-hēde/-hōd/-hood in ME				
	M	**B**	**T**	**OE**
maidenhēde	'maiden-state'	438	168	+
manhēde	'man-state'	9041	127	
godhēde	'god-state'	7892	104	+
childhēde	'child-state'	785	34	+
knighthēde	'knight'	32	29	+
broþerhēde	'brother-state'	391	14	
spushēde	'spouse-state'	96	14	
widewehēde	'widow-state'	37	11	+
fatherhood	'father-state'	916	6	
priesthood	'priest-office'	623	5	+
motherhood	'mother-state'	563	4	
sothēde	'fool-state'	41	3	
onlusthēde	'idleness-state'	3	3	
clerichād	'clergy-rank'	236	2	+
monkhēde	'monk-rank'	178	2	+
barnhēde	'child-state'	43	2	
princehēde	'prince-rank'	181	2	
wedlachād	'wedlock-state'	29	1	
worðshiphēde	'honour-state'	134	1	
onwythēde	'fool-state'	3	1	
uncunninghēde	'uncunning-state'	3	1	
youthhood	'youth-state'	25	1	+
leperhood	'leper-state'	25	1	
Total			536	

Table 4.21: *Formations with Noun + hād/-hēde/-hōd/-hood in ME*

Morphological patterning of hād/-hēde/-hōd/-hood in ME				
Period	Base	type	token	type/token frequency
M1	N	8	144	0.05
	A	1	54	0.2
M2	N	13	68	0.19
	A	34	116	0.29
	NUM	2	12	0.16
M3	N	12	176	0.06
	A	11	27	0.40
M4	N	12	147	0.08
	A	12	41	0.3

Table 4.22: *Morphological patterning of hād/-hēde/-hōd/-hood in ME*

In the E1 period we still find formations with all three forms, *-hēde, -hōd* and *-hood* (for convenience sake all forms are generalised to *-hood* in the tables). Since all formations given in Table 4.24 have occurred in previous periods, we assume that they are known, established forms. This means that the two hapaxes occurring in the table are not neologisms and hence the criterion of productivity is not borne out. Compared to the ME data, the token frequency of these formations decreases, and they all show quite low frequencies compared to the find-

Morphological patterning of hād/-hēde/-hōd/-hood in OE and ME			
Old English			
Base	type	token	type/token frequency
N	27	361	0.07
A	4	8	0.5
Middle English			
Base	type	token	type/token frequency
N	23	536	0.04
A	30	197	0.15

Table 4.23: *Morphological patterning of hād/-hēde/-hōd/-hood in OE and ME*

Formations Noun + -hood in E1				
	M	**B**	**T**	**ME**
childhood	'child-state'	1305	14	+
godhood	'god-state'	4011	3	+
priesthood	'priest-office'	223	3	+
brotherhood	'brother-state'	888	3	+
neighbourhood	'neighbour-state'	117	2	
knighthood	'knight-rank'	292	1	+
widowhood	'widow-state'	125	1	+
Total			27	

Table 4.24: *Formations Noun + -hood in E1*

ings in ME. For example, the M4 formation *childhēde* has a token frequency of 15 and the rate of occurrence is 15/1174705 (1.27691e-05). In contrast, the E1 formation *childhood* has a token frequency of 14 and the rate of occurrence is 14/1746217[22] (8.01733e-06). This difference shows that the formation occurs less frequently in E1 than in M4. The only new formation in the table is *neighbourhood* with 2 occurrences:

(79) & so they toke that but for good felyshyp & **neybourhōd**.
and so they took that but for good fellowship and neighbourhood
(MERRYTAL,29.100)

(80) … but have mynistred the same to the poore people oonelie for
but have ministered the same to the poor people only for
neighbourhōde and Goddes sake and of pitie and charytie;
neighbourhood and God's sake and of pity and charity
(STAT-1540,3,906.4)

In the first example the formation denotes 'neighbourliness, neighbourly feeling'. In the second example a metonymic shift denoting a surrounding area or district can be observed (via a stage where *neighbourhood* denotes the collectivity of individuals living in the same area since this is also a possible meaning today). This is the meaning of *neighbourhood* when used productively today. As concerns the meaning of the bases all nouns denote persons which either express transient properties (*priest*) or enduring properties (*brother*).

[22] 1746217 presents the total of all tokens in the PPCMEME.

Apart from the nominal type few cases with adjectival bases occur. They are given in Table 4.25:

Formations Adjective + -hood in E1				
	M	**B**	**T**	**ME**
likelyhood	'likely-state'	93	23	+
falshood	'fals-state'	236	10	+
unlikelihood	'unlikely-state'	6	1	
Total			34	

Table 4.25: *Formations Adjective + -hood in E1*

The formation with the highest frequency in the table is *likelihood*:

(81) and by **lykelyhēde** | he is com for your soule purposely
and by likelihood he is come for your soul purposely

(MERRYTAL,10.109)

We also find one case where *likelyhōd* is negated by the prefix *un-*:

(82) and by a great **onlykelihōd** al the landes descendid to one Richard,
and by a great unlikelihood all the land descended to one Richard

(LELAND,115.233)

Both cases clearly show that *-hēde, -hōd* and *-hood* have the status of a suffix. With respect to the meaning of the three formations found they denote 'the state of not being true' and 'the quality or state of being (un)likely', i.e., the adjectives are all used attributively here.

The morphological patterning of all types of formations occurring in E1 is given in Table 4.26:

Morphological patterning of -hood in E1			
Base	type	token	type/token frequency
N	7	27	0.25
A	3	34	0.08

Table 4.26: *Morphological patterning of -hood in E1*

As can be seen from 4.26 we find a relatively low rate of types for both the Noun + *-hood* and the Adjective + *-hood* pattern. We have also found only one new type of the Adjective + *-hood* pattern, *unlikelihood*. However, according to the criterion of productivity this type, having hapax status, does not suffice to say that *-hood* is productive.

If we move along chronologically, we observe that in the E2 period of ENE the phonological form *-hēde* has disappeared (see (65)). Only formations with *-hōd* and *-hood* appear with both nominal and adjectival bases. The frequency of both types of formations continues to decrease.

In the E2 period we find the formations of the Noun + *-hood* type given in Table 4.27, p. 75. Again, as for the E1 period only few types with a low frequency of occurrence appear. All the types listed in Table 4.27 are known and established, the bases of which all denote persons. The type *knighthood* with hapax status shows (again), that this status need not indicate new forms. As discussed above, this is due to the diachronic nature of the corpus and the fact that the corpus is small.

Formations Noun + -hood in E2				
	M	**B**	**T**	**ME**
priesthood	'priest-office'	223	3	+
brotherhood	'brother-state'	888	2	+
manhood	'man-state'	7045	2	+
knighthood	'knight-rank'	292	1	+
Total		8		

Table 4.27: *Formations Noun + -hood in E2*

The formations of the Adjective + *-hood* type are given in Table 4.28. The number of types decreases as well as the number of tokens. For this pattern, in E2 we only find two well-established types, *falsehood* and *likelihood*.

Formations Adjective + -hood in E2				
	M	**B**	**T**	**ME**
falsehood	'false-state'	236	4	+
likelihood	'likely-state'	93	6	+
Total			10	

Table 4.28: *Formations Adjective + -hood in E2*

The morphological patterning of all types of formations occurring in E2 is given in Table 4.29.

Morphological patterning of -hood in E2			
Base	type	token	type/token frequency
N	4	8	0.5
A	2	10	0.2

Table 4.29: *Morphological patterning of -hood in E2*

Compared to the findings for E1 presented in Table 4.26 we find a further decrease of number of types and tokens in the E2 period.

For E3 we gain a similar picture, few formations of both types occur. The formations found of the type Noun + *-hood* are given in Table 4.30, (p. 76).

Five types that have occurred before are found in this period with rather low frequencies. Again, those formations with hapax status are not neologisms. The formations of the type Adjective + *-hood* also show a similar picture as Table 4.31 (p. 76) shows.

The only new formation found is *livelyhood* given in the example below:

(83) But Austin, whom with his fellows, Ethelbert now hād endow'd with a
but A. who with his fellows E. now hād endowed with a
better place for thir abode in the Citty, and other possessions necessary to
better place for their abode in the city and other possessions necessary to
livelihood, ...
livelihood

(MILTON,X,145.33)

This formation used to denote 'the quality or state of being lively' but has become obsolete at that time. In a lexicon dated 1702 from LEME only one meaning is given: 'A Subsistence, or

Formations Noun + -hood in E3				
	M	**B**	**T**	**ME**
neighbourhood	'neighbour-state'	117	7	+
childhood	'child-state'	1305	3	+
brotherhood	'brother-state'	888	3	+
manhood	'man-state'	7045	1	+
widowhood	'widow-state'	125	1	+
Total			15	

Table 4.30: *Formations Noun + -hood in E3*

Formations Adjective + -hood in E3				
	M	**B**	**T**	**ME**
falsehood	'false-state'	236	12	+
likelihood	'likely-state'	93	4	+
livelihood	'lively-state'	1	2	
Total			18	

Table 4.31: *Formations Adjective + -hood in E3*

livelihood'[23] (John Kersey the younger, English Dictionary (1702)). The higher frequency of the formation in relation to the base implies that this form is stored as such, i.e., a lexicalised form.

There is also one occurrence of *neighbourhood* which clearly has a local reading here. Again, the example shows that the meaning 'surrounding area or district' derived by a metonymic shift has become salient:

(84) A ploughman of your **neighbourhood** that has never been out of his parish
a ploughman of your neighbourhood that has never been out of his parish
(LOCKE,75.150)

Two entries from lexicons of ENE support this finding:

(85) a. Vicinity, Neighbourhood, or nearness of dwelling or being.
(Thomas Willis, Dr. Willis's Practice of Physic (1684))
b. Vicinity, or Neighbourhood.
(John Kersey the younger, English Dictionary (1702))

As noted above, in E3 only few hapaxes occur, and most of them are not neologisms, i.e., they are not indicators of newly built formations. Hence, the criterion of productivity, which says that a productive series consists of at least two hapaxes with a morphological category, is not borne out. To summarise, Table 4.32 (p. 77) lists all formations with nominal bases in ENE, and the morphological patterning of all types of formation occurring in E3 is given in Table 4.33 (p. 77).

Table 4.34 (p. 77) compares the findings from all three ENE periods with the findings from OE and ME.

[23] The MED and Webster's note that this formation is an alteration of OE *liflad* which meant 'course of life'.

Formations Noun + -hood in ENE				
	M	**B**	**T**	**ME**
childhood	'child-state'	1305	17	+
godhood	'god-state'	4011	3	+
priesthood	'priest-office'	223	6	+
brotherhood	'brother-state'	888	8	+
neighbourhood	'neighbour-state'	117	9	+
knighthood	'knight-rank'	292	2	+
widowhood	'widow-state'	125	2	+
manhood	'man-state'	7045	3	+
Total			52	

Table 4.32: *Formations Noun + -hood in ENE*

Morphological patterning of -hood in E3			
Base	type	token	type/token frequency
N	5	15	0.33
A	3	18	0.16

Table 4.33: *Morphological patterning of -hood in E3*

The findings from all three ENE periods show that few types occur with low token frequencies. This contrasts with ME where many new types occur with relatively high type/token ratios. Therefore, in ENE *-hood* clearly has the status of a suffix. Nevertheless, the productivity decreases from ME to ENE. With respect to the semantics, a number of salient meanings are found which are 'office of N' and 'state of N' as well as metonymic shifts like 'time' (*childhood*) and 'surrounding area' (*neighbourhood*) that resulted from these old meanings. In the course of time, the element *-hood* has gained a new phonological form and lost its free status. There is no co-existing free element with the same origins and meaning. All these aspects support the assumption that by ENE *-hood* is a suffix.

Morphological patterning of hād/-hēde/-hōd/-hood in OE, ME and E			
Old English			
Base	type	token	type/token frequency
N	27	361	0.07
A	4	8	0.5
Middle English			
Base	type	token	type/token frequency
N	23	536	0.04
A	30	197	0.15
Early Modern English			
Base	type	token	type/token frequency
N	9	52	0.33
A	4	62	0.16

Table 4.34: *Morphological patterning of hād/-hēde/-hōd/-hood in OE, ME and E*

4.2.4 *-hood* in Modern English (ModE)

In this section ModE *-hood*-formations will be investigated. The formations found in the British National Corpus (BNC) are given in Table 4.35.

Formations with -hood (ModE)				Formations with -hood (ModE)			
	B	**T**	**ENE**		**B**	**T**	**ENE**
childhood	71055	2803	+	unlikelihood	5666	14	+
neighbourhood	4987	1469	+	bachelorhood	496	10	
likelihood	23356	1202	+	martyrhood	464	8	+
adulthood	8403	302		grandparenthood	621	8	
motherhood	27977	299	+	maximum-likelihood	–	7	
livelihood	–	289	+	hardihood	1	7	
brotherhood	11627	286	+	servanthood	4761	7	
parenthood	20058	240		riderhood	1723	6	
priesthood	3365	230	+	subjecthood	27245	4	
manhood	99081	202	+	maidenhood	547	4	+
boyhood	21298	150		lifehood	19034	3	+
knighthood	1505	138	+	single-parenthood	71	3	
womanhood	63058	123	+	peoplehood	125631	3	
falsehood	3686	122	+	kittenhood	425	3	
statehood	53631	73		godhood	8728	3	+
widowhood	2116	63	+	entityhood	1818	3	
nationhood	8510	56		doghood	12605	3	
fatherhood	23466	49	+	Disneyhood	517	3	
sisterhood	8598	36		cathood	5429	3	
personhood	28977	32		toddlerhood	579	2	
girlhood	25343	28		hackerhood	120	2	
selfhood	3894	26		grandmotherhood	146	2	
babyhood	11516	25		godparenthood	2	2	
sainthood	1461	23		god-manhood	99081 (man)	2	
spinsterhood	181	17		DO-hood	–	2	
puppyhood	716	17					
Total						8414	

Table 4.35: *Formations with -hood (ModE)*

We see that many types with the suffix *-hood* occur in ModE. There are a number of formations with high token frequencies like *childhood*, *neighbourhood*, and also with an adjectival base like *likelihood* and formations with low frequencies most of which have occurred in previous periods (see the indicator in the rightmost column). All predominantly show nominal bases denoting persons. More precisely, these bases either denote transient stages like *hacker* or enduring properties like *toddlerhood*, and *girlhood*. Moreover, there are a number of formations of the individual-level type denoting individuals (but not persons) like *cathood* or *doghood*[24]. A number of examples are given below:

(86) *John was an only child whose mother had died when he was at the difficult and demanding age of* ***toddlerhood***. (BNC)

[24] Aronoff & Cho (2001) make a distinction between left-side-individual-level predicates and right-side-individual-level predicates. The former denote properties that individuals have at birth and retain until a certain point in time (*girl*), the latter denote properties that individuals acquire at a certain point in their lives and retain for the rest of their lives (*parent*). Their distinction is based on Carlson's (1977) distinction between stage-level and individual-level predicates to which we will come back in chapter 5.

(87) *Some are forced into **single-parenthood** by a man who walks out on his wife or partner, often for a younger model and a quiet life away from nursery squalls.* (BNC)

Moreover, the class of possible bases also extends to entities with the features [+ animate,-human]: *apehood*, *puppyhood*, *cathood*, *doghood*, *kittenhood*:

(88) *We all realise **puppyhood** is the most important time in a dog's life.* (BNC)

(89) *Many aspects of adult cat behaviour can be explained in this way, the relics of **kittenhood** remaining with our pets until they are old and senile.* (BNC)

If the formations in Table 4.35 (p. 78) are compared with the formations found in OE, ME and ENE it seems that the type of nominal bases has been extended to individuals in general (recall that in the earlier stages only nouns denoting persons occur). Apart from this semantic extension we also find a "structural extension": a number of cases occurs where the first part of the formation determines the second part containing the suffix as in *maximum-likelihood*. This type of formation occurs even more frequently among the hapaxes with *-hood* presented in Table 4.36.

Hapaxes with -hood (ModE)					**Hapaxes with -hood (ModE)**			
	nl/l	**B**	**T**			nl/l	**B**	**T**
thinghood	l	77584	1		outsiderhood	nl	1316	1
only-childhood	nl	71055 (child)	1		monkhood	l	1170	1
					warriorhood	nl	1069	1
placehood	nl	66856	1		deerhood	nl	878	1
good-womanhood	nl	63058 (woman)	1		grand-parenthood	l	621	1
					apehood	nl	516	1
familyhood	nl	42765	1		siblinghood	nl	458	1
single-hood	nl	19673	1		moranhood	nl	437	1
Order-Brotherhood	nl	11677 (brother)	1		urchinhood	nl	197	1
					faggothood	nl	72	1
clienthood	nl	10959	1		thanehood	l	67	1
patienthood	nl	8114	1		godparenthood	l	47	1
victimhood	l	6771	1		non-personhood	nl	19	1
weatherhood	nl	6087	1		earth-motherhood	nl	6	1
intra-neighbourhood	nl	4987 (neighbour)	1		man-godhood	nl	3	1
					non-adulthood	nl	3	1
cousinhood	l	2459	1		blood-brotherhood	l	2	1
chaphood	nl	2002	1		priestesshood	nl	–	1
ghosthood	nl	1993	1		dominion-hood	l	1	1
pet-hood	nl	1852	1		single-motherhood	nl	1	1
marinehood	nl	1771	1		wife-and-motherhood	nl	–	1
limbhood	nl	1702	1		broth-of-a-boyhood	nl	–	1
Total								40

Table 4.36: *Hapaxes with -hood (ModE)*

A total of 40 hapaxes occurs in ModE[25]. According to the criterion of productivity, *-hood* clearly is a suffix productively building new formations of the type abstract noun. Apart

[25] From all the formations only *monkhood* has already occurred in ENE.

from formations like *intra-neighbourhood* and *earth-motherhood* that seem to function as copulative compounds even whole phrases can serve as bases:

(90) *After sharing the camaraderie of the fighting services or the hardships of civilian bombing on equal terms, surely women would not go meekly back home to* ***wife-and-motherhood****?*

(BNC)

(91) *Clare has always had rather more in the way of aristocratic pretensions than Andy, who has that aura of classless* ***broth-of-a-boyhood*** *that usually only the congenitally rich can carry off convincingly*. (BNC)

As discussed in chapter 3, according to Baayen (1992, 1993) , the number of hapaxes in a corpus correlate with the number of neologisms, i.e., hapaxes are an indicator of productivity of a certain word formation pattern[26]. In the table, I have indicated with *l* and *nl* whether the derivatives are listed in the dictionary[27] or not. As noted above, a number of these formations include prefixes like *non-*, *single-*, *intra-*, *good-* and *only-* some of which indicate morphological processes having taken place after suffixation with *-hood* like *intra-neighbourhood* or *wife-and-motherhood* with a phrase as first element. That is why not all of them are "proper" neologisms in the sense that they cannot be analysed as nonce-formations of *-hood*-suffixation. The observation that the pattern Adjective +*-hood* was lost and that there are only remains of it, and the fact that the productively built formations of the type Noun +*-hood* predominantly bear the meaning 'state of being N' (non-listed hapaxes like *faggothood, deerhood, pethood, etc.*) show that in ModE *-hood* productively builds formations of the nominal type to a certain degree. Meanings that arose due to metonymic shifts like 'time' or 'surrounding area' occur dependent of the meaning of the nominal base. Moreover, the salient meaning 'office of N' does not occur with newly built formations. Those formations existing with salient meanings are lexicalised like *priesthood*. The contrast between the meaning of this formation and the meaning of the ModE formation *priestesshood* nicely shows the development of *-hood*[28]:

(92) *Rather than only training women to take on roles that have been shaped by men over the centuries, would it not be far more interesting, more expansive, to look into the questions of* ***priestesshood****, to find out what mystery it is that women can touch on, and how they can communicate it to the human world?* (BNC)

(93) a. … ***priestesshood*** *lives on in a sort of corporate immortality*.
(1841, C. E. Lester Clory Eng. II. 139)

b. … *priesthood and* ***priestesshood*** *were as perfectly organised*
(H. R. Haweis Light of Ages v. 145)

The examples show that *priestesshood* denotes the office of a priestess as well as the more general meaning 'state of a priestess'. The assumption that the once salient meaning is not always dominant in formations productively built with *-hood* is corroborated when we examine the bases that *-hood* occurs with today: as noted in chapter 4 it mainly occurred with

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[26] It should be noted, however, that also in a corpus like the BNC not all hapaxes indicate a newly coined word; it could also be an established word that occurs only once in the corpus like *monkhood*.

[27] Merriam Webster's Dictionary and the Longman Dictionary of Contemporary English.

[28] The latter two examples are from the OED.

nouns denoting persons (leaving aside the adjectival bases), and these nouns could also refer to an office (like *bishop* etc.). Today, we either find nouns denoting persons that could not refer to an office like

(94) *Ideally the pressure groups formed are not to be organized functionally around 'clienthood' or '**patienthood**' but around identification of interests which consumers in general feel to be appropriate.* (BNC)

or nouns referring to concrete entities (sortal nouns)

(95) *Physicalism is adopted as a regulative principle because physical objects provide the most familiar examples of 'things'; physics is permitted to provide our standards of reality or **thinghood**.* (BNC)

Nevertheless, the latter type of formations is extremely rare. If we take into account the findings presented in both tables (non-hapaxes and hapaxes) we see that *-hood* occurs with nominal bases denoting animate beings, and with very few exceptions with nouns that do not denote persons, like the one given above in (95). Thus, we would have to conclude that in ModE *-hood* productively builds formations with nominal bases denoting 'the state of N'.Individual-level predicates may also show the metonymy 'time' and 'surrounding area'. Taking also into consideration the frequency of occurrence of types, tokens, relevant hapaxes and the productivity measure "productivity in the narrow sense" (see also chapter 3) for *-hood*-formations in the BNC we gain the following picture:

Frequencies and productivity for -hood (ModE)				
type	token	type/token ratio	hapax	*P*
78	8454	0.009	32	0.003

Table 4.37: *Frequencies and productivity for -hood (ModE)*

The high number of tokens is due to many lexicalised formations bearing on the value for the type/token frequency of 0.009. Moreover, if the value for *P* for the quite productive ModE suffixes *-ize* (0.0021) and *-able* (0.0022) (Plag 2003b: 204[29]) are compared with the value of 0.003 for *-hood* we have to conclude that the latter one is highly productive. In the following we will survey whether the suffixes *-dom* and *-ship* are as productive as *-hood*.

4.2.5 Conclusion

In this section, the development of ModE *-hood* was investigated. It was shown with data from OE, ME, ENE and ModE that the element developed from free morpheme with properties pertaining to nouns into a suffix with properties pertaining to suffixhood. There is evidence that it is the subperiod of M2 where the element first occurs as suffix, the main criteria to define suffixal status are the frequency of occurrence and the semantics of the element. It was also shown that in ModE the suffix is highly productive. In the next section, the development of ModE *-dom* will be surveyed.

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[29] It should be noted that Plag's *P*-values are based on the written corpus which is a subcorpus of the BNC and therefore they are not entirely comparable with my values, but nevertheless helpful for an approximate comparison.

4.3 The development of *-dom*

4.3.1 Introduction

In this section we will deal with OE *dōm*, ModE *-dom*, the second element discussed here building abstract nouns today. First, we will survey the status of this element in OE by means of the criteria discussed in chapters 2 and 3.

4.3.2 *dōm* in Old English

Before we survey *dōm* with the data from the YCOE, let us consult the entry in the OED to see what information we find:

> OED: [OE. *-dōm* = OS. *-dōm*, MDu. *-doem*, Du. *-dōm*, OHG., MHG. *-tuom*, G. *-tum*.]
> Abstract suffix of state, which has grown out of an independent n., orig. putting, setting, position, statute, OHG. *tuom*, position, condition, dignity, in OE. *dōm*, statute, judgement, jurisdiction, f. stem *dō-* of *do* v. + abstract suffix *-moz*, OE. *-m*, as in *hel-m*, *sea-m*, *strea-m*, etc. Frequent already in OE. as a suffix to ns. and adjs., as *biscopdōm* the dignity of a bishop, *cyningdōm*, *cynedōm*, royal or kingly dominion, *kingdōm*, *ealdordōm* the position or jurisdiction of an elder or lord; *þeowdōm*, the condition of a *þeow* or slave; *frēodōm*, *hāligdōm*, *wisdōm* the condition or fact of being free, holy, or wise. The number of these derivatives has increased in later times, and *-dōm* is now a living suffix, freely employed to form nonce-derivatives, not only with the sense of 'condition, state, dignity', but also with that of 'domain, realm' (fig.) [...] *alderdom*, *Anglo-Saxondom*, *boredom*, *Christendom*, *cuckoldom*, *dukedom*, *earldom*, *freedom*, *kingdom*, *martyrdom*, *popedom*, *sheriffdom*, *thraldom*, *wisdom*, etc.

According to Marchand (1969: 262) it occurred in OE as a full noun *dōm* with the meaning 'jurisdiction, state, statute' (see also Bosworth & Toller 1898 and Clark Hall 1996) forming compounds with adjectival and nominal first words whereas the former type was weak. Voyles (1992: 273) notes that in Germanic a suffixal element **dōm* with adjectival, verbal and nominal bases occurred; the derivative was a noun with the meaning 'status, state of being'. Originally, these formations were compounds.

In the OED entry it is stated that *dōm* was already a suffix in OE but it is not clear why it is analysed as such. Further, there are two types, one with an adjectival base that is less frequent, and one with a nominal base that occurs more frequently. According to the OED, today *-dom* is a suffix that productively builds derivations.

Sauer (1992: 229) observes that in the literature for OE suffixal status is often attributed to *dōm* but this classification is too global and does not apply to all cases. Sauer claims that initially formations with *-dōm* were compounds (see also Marchand 1969 and Faiß 1978). In the course of the ME period it developed from a free morpheme *dōm* into a suffix *dom*. One of the main factors for this development is according to Sauer the highly polysemous character of the element (see also chapter 6).

There is an etymological relation between the IDE root *dhe/dho* and the suffix *-dōm* (Modern German (ModG) *-tum*) in that *dōm* (*tum*) as free morpheme was a deverbal abstract noun in OE (and Old High German, (OHG)), i.e., *dōm* derived from the verb *to do* (ModG *tun*). Thus for the PG **dōmaz* we have to assume an original meaning 'putting, setting, position'. Tschentscher (1958) notes

> Die idg. Wurzel dhe-/dho- des Verbalstamms von Tun ist weit verbreitet und weist überall dieselbe grundlegende Bedeutung des 'Setzens' auf, das zu den Ursituationen des menschlichen Lebens gerechnet werden kann. Sie gliedert sich ähnlich wie im Germanischen auch in anderen idg. Sprachen vielfältig auf. Tun ist bis heute lebendig und zum Allerweltswort geworden. Das Gefühl für den etymologischen Zusammenhang mit dem Verbalabstraktum TUM ist seit langem in unserer Sprache verloren. Doch müssen wir, wenn wir einigermaßen treffend einen urgermanischen Bedeutungskern herausschälen wollen, dieser Wurzelbedeutung entsprechend für das germanische *dōmaz ein ursprüngliches 'Setzung, Satzung, Satz' annehmen.

This assumption implies that the noun found in Germanic and OE still exhibits traces of the verbal meaning 'to do sth.' as well as the meaning 'putting, setting'.

Before we deal with the formal properties of OE *dōm* we will focus on the meaning of the Germanic noun. Tschentscher notes that in PG no derivations with *dōm* are found because "[ ] war das selbständige Wort viel zu lebendig und wirksam"[30] (1958: 45). In Gothic, which is the only Germanic dialect with the earliest written records, *dōm* occurs in the *Skeireins*[31]:

(96) *Iþ nasjands* ***þana anawairþan dōm*** *is gasai(·)ands. jah þatei in galaubeinai þeihan habaida.*
(Skeireins, Codex Ambrosianus E, leaf 1, p. 77/8,8-12)

The ModG and ModE translation for *dōm* is given below:

(97) *Doch der Erlöser sah* ***dessen künftige Bestimmung*** *...*

(98) *Aber der Heiland, da er* ***den zukünftigen Ruhm*** *desselben schaute, und dass er im Glauben wachsen werde, ...* (Dietrich)

(99) *But the saviour, perceiving* ***his future discernment****, ...* (Bennett)

(100) *But the Savior, seeing* ***his future judgement****, ...* (Marchand)

From the translations presented above we see that *dōm* in the *Skeireins* is translated as 'glory', 'judgement' and 'discernment'. What becomes evident is that the word seems to have a number of coexisting meanings, i.e., it seems to be polysemous. According to Grönbech (1987a), (1987b), however, these meanings are tightly interwoven. In PG we find the verb *doema* 'to judge', the noun is *dōmr* 'judgement' which in Germanic life and culture also denoted the ritual speech and act[32]. Here, judgements were made that had far-reaching consequences for the ones being judged: they could lead to glory and salvation (these are clear cases of metonymy). Grönbech further notes

> Als das christliche Evangelium eine Benennung brauchte, die in den Ohren der Nordländer einen bekannten Klang hatte, wurde ganz natürlich *hinn dyri dōmr*, der teure *dōmr*, die Bezeichnung für die Worte und Taten des neuen Gottes[33].

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[30] The English translation is: "[...] because the autonomous word was too lively and active".

[31] The Skeireins is a Gothic commentary on the Gospel of John. The author is not known (it is definitely not Wulfila) and the translation is from Greek.

[32] In the *Völuspa*, the first song of the *Elder Edda*, the connection between judging, judgement, glory and salvation becomes clear.

[33] When the christian gospel needed a term that was familiar to the Norsemen's ears *hinn dyri dōmr*, the dear *dōmr*, was taken as the term to express the words and deeds of the new god.

So the word *dōm* started to appear in the context of Christian faith and was used for the meaning 'the word of God'. That is why in OE we also find so many instances of *dōm* in religious texts (see below).
Grönbech (1987a: 404), mainly giving examples from *Beowulf*, lists the following meanings for *dōm*:

(101) Glück und Macht (fortune and power)

Macht als Wille (power as will)

der Wille, der zu seinem Ziel gelangt, d.i. die Entscheidung, Urteil (will that reaches its goal, the decision, the judgement)

Herrscherkraft (power of a leader)

Ehre (glory)

Ruhm (glory)

Ruhm nach dem Tode, Leben, daher in christlicher Sprache: Ewiges Leben, Erlösung. (glory after death, in Christian terms: eternal life, salvation)

From what was said above, the connection between these meanings is obvious.

In OE, the free element *dōm* is predominantly found with the meaning 'judgement' as well as with metonymies resulting from 'judgement' like 'resolution' or 'decision' (see Bosworth & Toller 1898), mainly in religious contexts but also in non-religious contexts as is shown with the following examples from the *Anglo-Saxon Chronicle* (*Laud Chronicle, ms. E*) and from *Ælfric's Homilies (Supplemental)*:

(102) & þā bead hē heom heora **agene dōm** feos. & landes gif
and then promised he them their own decision (of) money and land
hēo him þæs rīces uðon.
if they him the reign granted

(ChronE_[Plummer]:755.27.766)

(103) Rihtlīce hī dēmdon heora **āgenne dōm**.
rightly they determined they own fate

(ÆHom_3:139.493)

Unlike *-hood*, the free morpheme of which is obsolete in ModE, the meaning 'judgement' is preserved in the ModE free morpheme *doom*; the spelling of *doom* reflects the originally long OE vowel [o:]; ME *dōm* [do:m] develops into EME [dom]. The coexisting free form with the meaning 'judgement, sentence' occurs with the <oo> spelling for the first time in a lexicon from 1582 indicating that it is still a long vowel: [do:m]. During the GVS [o:] was raised to [u:] resulting in ModE [du:m]. In the following examples from ME and ModE *doom* occurs with the salient meaning 'judgement', mainly in fixed expressions like 'judgement day' or 'Last judgement':

(104) Considre now the dredful **day of doom**, in whiche day shal appere euery
consider now the dreadful day of doom in which day shal appear every
thynge naked as it is in his owne kynd;
thing naked as it is in his own kind

(AELR4,24.734)

In ModE, this meaning of *doom* has been generalised to other contexts: it has the meaning 'something very bad that is going to happen, or the fact that it is going to happen' (DCE):

(105) *Britain still has the highest debt to income ratio in Europe and the appetite for credit may not be blunted until the review date comes and with it the monetary* ***day of doom***. (BNC)

(106) *Tennyson's poem, though, is about a woman who lures a man to* ***his doom****, a man apparently of another race, so that this allusion in turn provides a further interpretation of the fates of Antony and Burbank*. (BNC)

Thus, in a restricted sense the OE meaning 'judgement day' has been preserved (see also the note on *doomsday*).

Coming back to OE, *dōm* also occurs with the meaning 'judgement' with a plethora of adjectives modifying it (like *riht*, *last*, *grete*):

(107) þonne sē micela dæg cume **þæs tōweardan dōmes** & eallum
then the great day comes (of)the approaching judgement and all
menniscum cynne bið dēmed be hira sylfra gewyrhtum & geearnungum,
people kind are doomed by their self work and merit
(HomM_11_[ScraggVerc_14]:176.1846)

(108) Sē rihtwīa God lufað **rihte dōmas**;
the rightwise God loves right judgements
(ÆLet_4_[SigeweardZ]:1221.602)

Further, we find an NP *Godes dōme* with the meaning 'Last judgement':

(109) & þis folc ne oncnēow **Godes dōm**.
and this people not knew God's judgement
(ÆCHom_I,_28:412.64.5503)

In chapter 4.2 it was shown that the noun *hād* can have a result reading and the nominalisation *hādung* an event reading. Since *hād* could not express the latter reading the derivation *hād* + *ung* was used to express this reading. With *dōm* matters are different: *dōm* could have both readings, the result reading *judgement* = 'judicial decision' (see the examples above) and the event reading 'the administering of justice, the act of judging' which is demonstrated with the examples below:

The act of judging

(110) and ic ābād heora þæt hī **worhton dōm**, …
and I waited-for them that they performed judgement
(ÆHom_3:76.453)

(111) ***Æfter ðysum dōme*** ūre Drihten færð tō his heofonlican Fæder, …
after this judgement our lord goes to his heavenly father
(ÆHom_11:519.1758)

(112) Hē wæs sōðfæst **on dōme**, and estful **on bodunge**, …
he was true in judging and gracious in preaching
(ÆLS_[Martin]:294.6149)

In (110) we the verb of action *wyrcan* co-occurs with *dōm* denoting the act of judging. In (111) the sentence begins with the temporal adverbial *Æfter* that shows that the judging of an action extended over a certain time span. In the example in (112) the preposition *on* as well as the conjoined clause including *on bodunge* show that two actions are denoted here with *dōm* and *bodunge*: judging and preaching. This finding is not surprising since *dōm* is a deverbal noun deriving from the verb *do* as mentioned above. Therefore, in OE *dōm* as free morpheme still has the property of denoting an event (this point will become important in chapter 6). This is presumably also the reason for the fact that in OE nominalisations with *-ung* do not occur. But we find other word-formations and complex words with *dōm* (see Clark Hall 1996: 87 and Bosworth & Toller 1898: 207f):

(113) dōmere 'judge'
dōmern 'judgement place'
dōmian 'to praise, glory'
dōm-bōc 'book of decrees or laws'
dōm-hūs 'judgement house'
dōm-setl 'judgement seat'
dōm-dæg 'judgement-day'
dōm-ēadig 'blessed with power'
dōm-fæst 'firm in judgement'
dōm-georn 'eager for justice'
dōm-hwæt 'strenuous in judgement'
dōm-lēas 'powerless'
dōm-līce 'judicially, glorious'

Most of the examples given above refer to things or actions involving judgement. It is also not difficult to see the relation between the meaning of 'judgement' and the meaning of 'power'. If somebody is in the position to judge somebody else he is powerful, so the metonymic shift is very transparent here.
Apart from the (weak) denominal verb *dōmian* listed above with the meaning 'to praise, glory' there is also the weak verb *deman* with the meaning 'to give judgement, to act as judge' (it is both intrans. and trans.). According to the OED it derives from PG **dōmjan*, a denominal verb (from the PG noun **dōmo-z*). This verb occurs in syntactic constructions where it is preceded by an adjective referring to the properties of the judgement made:

(114) Ne sceall nān Godes þegn for sceattum **riht dēman**, ac healdan þone
not shall no God's servant for money right judge but hold the
dōm gif hē Drihtnes man sȳ,
judgement if he Lord's man be

(ÆLS_[Alban]:244.4136)

(115) ne sēo ylde þā geogoðe ne forþringe, forðī Samuel and Daniel
nor the old the young not displace because S. and D.
cildgeonge forealdēdum **mæsseprēostum dēmdon**.
youthful old masspriests judged

(BenR:63.115.5.1136)

(116) ic lustlīce from þære þegnunge gewīte, forþon ic þy hāde mec seolfne
I willingly from the service depart because I my office the self
næfre **wyrðne dēmde**.
never worthy judged

(Bede_4:2.260.3.2644)

In the examples above the linear order of modifier and head noun *dōm* have parallels in syntactic phrases where adjectives or nouns precede the verb *deman*. Thus, the speaker had quite good evidence that what he could express with a verbal phrase he could also express with a syntactic phrase (and later with a nominal compound). Moreover, the verb *deman* very frequently occurs with the noun *dōm* as in:

(117) **Dēm**, lā dēma, **rihtne dōm** & **emne dōm**.
Judge, o judge, right judgement and even judgement

(HomS_40.3_[ScraggVerc_10]:67.1404)

(118) … and nāhwār þurh undōm for fēo ne for frēondscipe
and nowhere through unjust judgement for money nor for friendship
forgīman heora wīsdōm, swā þæt hī wændan unriht tō rihte oððe
neglect their wisdōm so that they turn unjust to just or
undōm dēman earmon tō hȳnðe.
unjust judgement judge huge to hundred

(WPol_2.1.2_[Jost]:57.74)

(119) Witodlīce, sē ðe frēondlēasan & feorrancumenan **wyrsan dōm dēmeð**
truly the who friendless and strangers worse judgement judged
þonne his geferan, he dereð him sylfum.
than his comrades he damages him self

(LawIICn:35.1.137)

So, Messing's criterion stating that as long as an element has the status of a free morpheme syntactic verbal constructions occur with that element is also borne out here. Other meanings of the free element *dōm* to be found are:

Decree (law)

(120) & on monega senoðbēc hīe writan, hwǣr **ānne dōm** hwǣr ōþerne.
and on many synod books they wrote, here one decree there another

(LawAfEl:49.8.137)

According to what was said above the meaning 'decree' arises out of the special context given here, where the scribe talks about a special type of judgement, an order or law written down.

Authority, dominion

(121) and betǣhte þone gōd tō **Daniheles dōme**.
and delivered the goods to Daniel's dominion

(ÆHom_22:428.3542)

(122) & sōhte ðæs **cyninges dōm**,
and searched the king's dominion

(CP:26.185.17.1227)

Office, Rank, Status

(123) þā gecēas hē Laurentium tō þām hāde þæs **biscopes dōmes**,
then chose he L. to the office (of)the bishop's rank
(GDPref_and_4_[C]:42.329.14.4959)

In all these cases *dōm* is preceded by a noun in the genitive modifying it. As shown with *hād*, these are the contexts from which genitive compounds develop.

With respect to the formal status of *dōm* in the following we will deal with its formal properties, i.e., we will first investigate whether we find morphological agreement between *dōm* as the head of a syntactic phrase and modifiers preceding it. All 109 cases found with an adjectival modifier show agreement:

(124) Tō ǣgþer þæra þinga, þæt is yrre and mansliht, gǣð [$_{\text{Nom}}$ **sē rihta dōm**];
to each (of)these things' that is anger and manslaughter comes the just judgement
(ÆHom_16:137.2319)

(125) Þǣr bēoð ealle gelīce, ge sē hlaford ge sē ðēowa, sē rica and sē hēana, on [$_{\text{Dat}}$ **þām rihtan dōme**],
there are all equal both the lord and the handmaiden the rich and the poor on the just judgement
(ÆHom_11:400.1694)

(126) wiccecræft and wiglung and [$_{\text{Acc}}$ **þa wōgan dōmas**], …
witchcraft and sorcery and the bad judgements
(ÆHom_17:72.2400)

The syntactic phrases of the type Adjective + *dōm* found in the corpus are given in Table 4.38 (p. 89).

Moreover, there are a number of DPs of the type Noun$_{\text{gen}}$ + Noun (however, much less frequent as with *hād*) that all show genitive case marking on the nominal modifier of the head:

(127) Đā gelīcode þām gedwolum [$_{\text{Nom}}$ [$_{\text{Gen}}$ **þæs bisceopes**] **dōm**],
then pleased the heretics the bishop's office
(ÆLS_[Basil]:338.675)

(128) ond hē āna æfter [$_{\text{Dat}}$[$_{\text{Gen}}$ **alles seonoðes**] $_{\text{Dat}}$ **dōme**] monig gēr þone biscophād mid micle gerece heold & ræhte Westseaxna þēode.
and he alone after entire synod's decree many year the bishophood with great rule controlled and attained Westsaxon people
(Bede_3:5.170.32.1682)

(129) Hwæt, þū wast gif þū þīnes scipes segl ongēan þone wind tōbrǣdest,
lo thou knowest if you thine ship's sail against the wind spreadst
þæt þū þonne lætæst eall ēower færeld tō [$_{\text{Dat}}$[$_{\text{Gen}}$ **ðæs windes**] **dōme**.
that thou then letst all your way to the wind's power
(Bo:7.16.28.256)

DPs with Adjective + dōm in OE		
	M	**T**
riht dōm	‘just judgement’	28
toweard dōm	‘imminent judgement’	10
godcund dōm	‘spiritual judgement’	7
gemænelic dōm	‘universal judgement’	6
digle dōm	‘hidden judgement’	4
egeslic dōm	‘dreadful judgement’	4
uplic dōm	‘celestial judgement’	3
ece dōm	‘eternal judgement’	3
mycel dōm	‘great judgement’	3
heard dōm	‘severe judgement’	3
unriht dōm	‘unjust judgement’	3
rihtlic dōm	‘just judgement’	3
ðearl dōm	‘severe judgement’	2
egesful dōm	‘severe judgement’	2
stið dōm	‘hard judgement’	2
rihtwis dōm	‘just judgement’	2
strecen dōm	‘severe judgement’	1
ytemest dōm	‘last judgement’	1
gemæne dōm	‘universal judgement’	1
ryhtest dōm	‘justest judgement’	1
reð dōm	‘severe judgement’	1
fremedum dōm	‘secular rank’	1
lengest dōm	‘eternal judgement’	1
gelic dōm	‘just judgement’	1
emne (efen) dōm	‘just judgement’	1
unrithwis dōm	‘unjust judgement’	1
wog dōm	‘unjust judgement’	1
ðerf dōm	‘poor judgement’	1
mihtig dōm	‘powerful judgement’	1
yfel dōm	‘evil judgement’	1
nearwe dōm	‘imminent judgement’	1
witen dōm	‘wise man’s judgement’	1
red dōm	‘wise judgement’	1
strange dōm	‘powerful judgement’	1
woruldcund dōm	‘worldly authority’	1
welwillendum dōm	‘mild judgement’	1
wunderlic dōm	‘mild judgement’	1
godcundlic dōm	‘spiritual judgement’	1
witelic dōm	‘certain judgement’	1
Total		108

Table 4.38: *DPs with Adjective + dōm in OE*

All syntactic phrases of this type (Noun + *dōm*) found in the corpus are given in Table 4.40 (p. 90). There are also 56 instances of the pattern Proper Noun_{gen} + Noun, where the proper noun modifies the head noun and also consistently shows genitive case marking (see Table 4.39, p. 90).

Thus, the formal criterion postulated in chapter 4.2 is also borne out for the element *dōm* in OE. For *dōm* we can thus formulate the Syntactic Criterion I as follows:

(130) Syntactic Criterion I: if elements of the type [$\text{N/A}_{\text{agreement}}$ + $\textit{dōm}_{\text{agreement}}$] show agreement between the head noun and its modifier(s) they must be analysed as phrases.

DPs with dōm (NPR + dōm) in OE		
Godes dōme	'Last Judgement'	55
Daniheles dōme	'D's dominion'	1
Total		56

Table 4.39: *DPs with dōm (NPR + dōm) in OE*

DPs with Noun + dōm in OE		
	M	**T**
bisceopes dōm	'bishop's rank'	5
abbodes dōm	'abbot's rank'	4
cyninges dōm	'king's authority'	3
wite dōm	'wise man's' judgement	2
seolfes dōm	'self's authority'	2
seonoðes dōm	'synod's decree'	1
windes dōm	'wind's power'	1
hlaforda dōm	'lord's authority'	1
folces dōm	'folk's authority'	1
ealdra dōm	'elders' authority'	1
ealdordōmes dōm	'authority'	1
dryhtnes dōm	'lord's authority'	1
demanes dōm	'judge's judgement'	1
kaseres dōm	'emperor's authority'	1
helle dōm	'hell's judgement'	1
middaneardes dōm	'earth's judgement'	1
munuclif dōm	'monastery's authority'	1
Total		28

Table 4.40: *DPs with Noun + dōm in OE*

Before we turn to compounds with *dōm* as second element we will briefly deal with the gender of this element.

4.3.2.1 Gender of OE dōm

Tschentscher (1958) notes that OE and OHG *dōm* and *tuom* preserve the original gender of the word, the masculine. However, during the development of *dōm* from free to bound morpheme the change of the grammatical gender from masculine to neuter can be observed. In German this can be nicely seen with the examples *der Irrtum* (*misapprehension*), *das Wachstum* (*growth*) or *der Reichtum* (*riches*) but to find evidence for English seems to be problematic for the following reasons: First, it is well known that in Late OE overt marking of morphological features was lost and thus OE is the period where we would need to find instances of grammatical gender change. Second, if we take a look at the paradigms of the OE masculine noun *dōm* and the neuter noun *scip* (Mitchell & Robinson 2003, Campbell 2003, Sievers 1968) we see that the forms of these two gender classes were practically identical apart from the plural nom./acc forms *dōm**as*** vs. *scip**u*** (see Table 4.41, p. 91).

Paradigm of dōm and scip in OE (case, gender, number)				
	dōm		scip	
	Singular	**Plural**	**Singular**	**Plural**
Nom.	dōm	dōmas	scip	scipu
Acc.	dōm	dōmas	scip	scipu
Gen.	dōmes	dōma	scipes	scipa
Dat.	dōme	dōmum	scipe	scipum

Table 4.41: *Paradigm of dōm and scipe in OE (case, gender, number)*

It appears as if the formal distinction between bare nouns in the masculine and neuter is very subtle and hard to differentiate. However, if we consider noun phrases of the type Determiner + Noun we find that the distinctions between the different forms of the determiner(s) in OE (Mitchell & Robinson 2003, Campbell 2003, Sievers 1968) is clearer (see Table 4.42).

Paradigm of the demonstr. pronoun 'the' in OE (Sg. forms)		
	Masculine	**Neuter**
Nom.	se	þæt
Acc.	þone	þæt
Gen.	þæs	þæs
Dat.	þam/þæm	þam/þæm
Instr.	þy, þon	þy, þon

Table 4.42: *Paradigm of the demonstr. pronoun 'the' in OE (Sg. forms)*

Paradigm of the demonstr. pronoun 'this' in OE (Sg. forms)		
	Masculine	**Neuter**
Nom.	þes	þis
Acc.	þisne	þis
Gen.	þisses	þisses
Dat.	þissum	þissum
Instr.	þys	þys

Table 4.43: *Paradigm of the demonstr. pronoun 'this' in OE (Sg. forms)*

In the Nominative (Nom) and Accusative (Acc) for the demonstrative *the* there is the formal distinction between *se* and *þæt*, and *þone* and *þæt*. For the demonstrative *this* there is the formal distinction between the Nominative forms *þes* and *þis*. Consequently, the NPs *þæt dōm* and *þis dōm* would clearly be neuter forms and thus be an indication for gender change. However, no such cases could be found in the texts surveyed. The only case that shows a discrepancy of forms is given below[34] :

(131) Drihten lēof, þe ic þancige [$_{\text{Gen}}$ **þēoses dōmes**] þe þū mē in
lord dear whom I thank this ordinance that thou me in
sændest, …
sendest

(LS_14_[MargaretCCCC_303]:11.2.170)

[34] The example is from *The Old English Lives of St. Margaret* from the 12th century, see Clayton, Mary and Hugh Magennis. 1994, "The Old English Lives of St Margaret." Cambridge Studies in Anglo-Saxon England 9:152-70. Cambridge: CUP.

Here, the demonstrative shows an unusual form, the only existent form similar to the one found is the feminine *þeos* presenting nominative case which should not occur in a clearly genitival phrase. The other possibility is a deviation from the masculine/neuter genitival form *þisses*. However, as this form occurs only once and is not clearly neuter we cannot state that gender change occurs in OE with the free morpheme *dōm* and hence it cannot serve as a criterion to determine the development under investigation.

4.3.2.2 Phrasal head or part of compound?

It was shown above, that we find a number of syntactic constructions with a verbal form of *dōm* and a preceding nominal which is, according to Messing, a prerequisite for the occurrence of compounds, here of the type Noun + *dōm*. Moreover, *dōm* as free element continues to coexist, and the meaning of *dōm* as free element and as part of a compound is the same (in most formations), a further criterion for compoundhood. Further, we have seen that in OE syntactic phrases with the nominal head *hād* coexist with compounds where *hād* is the second element (compound head). With *dōm* we find the same situation: in the following examples we find agreement between the compound with *dōm* and its modifiers:

(132) & ēac sē frēodōm [$_{\text{Gen}}$ **þæs unāræfnedlican þēowdōmes**],
and also the free-status the intolerable slave-status
(HomS_47_[BlHom_12]:137.108.1662)

(133) Sē fæder is ēac wīsdōm of [$_{\text{Dat}}$ **nānum ōþrum wīsdōme**]:
the father is also wise-judgement of no other wise-judgement
(ÆCHom_I,_20:339.113.3954)

(134) … gyf wē [$_{\text{Acc}}$ **ða lǣcedōmas**] ūs sylfum dōn cunnan.
… if we the cures us self do can
(ÆLet_3_[Wulfstan_2]:176.246)

Moreover, examples like (135) illustrate that formations of the type Noun$_{\text{gen}}$ + Noun are analysed as one word because the modifiers preceding the formation agree with the whole formation:

(135) … þæt mycel smēauncg bīð on [$_{\text{Dat}}$ **þǣm egefullum** [$_{\text{Gen}}$ **Godes dōme**],
that much thought is on the awful God's judgement
(BenR:2.10.16.168)

Tables 4.45 and 4.44 (p. 93) show the frequency of occurrence of Noun + *dōm* and Adjective + *dōm* compounds[35].

From what was said above we can conclude that the Syntactic Criterion II postulated in chapter 4.2 is also borne out for the examples with *dōm*.

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[35] The compound *hǣðendōm* literally denotes 'false judgement', i.e., 'false religion', *sceacdōm* denotes a person who has fled from authority ('flight'). The A + N compound *rīcedōm* denotes somebody of a high rank, i.e.'kingly authority' (see also *fōn tō rīce* 'to ascend the throne', see BT).

Formations with Noun + dōm in OE			
	M	**B**	**T**
crīstendōm	'christian-authority'	153	117
lǣcedōm	'healing-authority'	123	82
martirdōm	'martyr-status'	251	75
þēowdōm	'servant-status'	616	39
ealdordōm	'authority'	393	30
biscopdōm	'bishop-rank'	2177	21
cynedōm	'king-authority'	3955	19
eorldōm	'earl-authority'	451	17
lārēowdōm	'teacher-authority'	655	10
witedōm	'wise man's-judgement'	369	7
campdōm	'military-authority'	9	7
lāttēowdōm	'leader-authority'	58	3
reccenddōm	'ruler-authority'	20	3
rīcedōm	'kingly-authority'	1413	1
woruldþēowdōm	'secular-servant-status'	1	1
Total			432

Table 4.44: *Formations with Noun + dōm in OE*

Formations with Adjective + dōm in OE			
	M	**B**	**T**
wīsdōm	'wise-judgement'	122	351
frēodōm	'free-authority'	60	40
swicdōm	'deceived-judgement'	60	9
hāligdōm	'holy-office'	1011	7
hǣðendōm	'heathen-authority'	163	5
woruldwīsdōm	'learned-judgement'	1060	2
unwīsdōm	'foolish-judgement'	29	2
unrihtwīsdōm	'unjust-judgement'	96	1
sceacdōm	'fled-from-authority'	3	1
ecndōm	'everlasting-judgement'	19	1
Total			419

Table 4.45: *Formations with Adjective + dōm in OE*

(136) Syntactic Criterion II: if elements of the type [Noun/Adjective + *dōm*] do not show agreement between the head noun and its modifier(s) they must be analysed as word-formations (compounds or derivations).

Apart from this criterion, in chapter 4.2 relative frequency was discussed, and we concluded that it cannot be applied diachronically since it does not vary with age. What we can observe here by looking at the Tables 4.44 and 4.45 is that for all formations listed the frequency of the base is higher than the frequency of the formation with that base, *woruldþēowdōm* and *wīsdōm* are the exceptions. With respect to the relative frequency of the latter formation, we would have to assume, in line with Hay, that since the formation occurs more frequent than the base (122/351) this formation is likely to be processed as whole

word. All the other formations are likely to be decomposed in processing. In 4.4.3 we will come back to this finding and see whether we find differences between OE and ME.

As discussed in chapter 2, another criterion of compound status is stress. In the preceding section it was applied to OE poetic texts to determine the status of *hād*. Here we will apply this criterion to the element *dōm* in poetic texts. Recall the nature of OE poetry (rhythmical, alliterating half-lines with a caesura). Since only stressed syllables show alliteration we would expect to find no (primary) stress and no alliteration on *dōm* if it is the head of a compound. The first two examples below show the free element *dōm* in OE poetic texts[36]:

(137) ðǣr gelyfan sceal **d**ryhtnes **d**ōme sē þe hine **d**ēað nimeð.
where believe must lord's authority who him death takes
(beowul,15.435.364)

(138) Ic lungre eam **d**ēope ge**d**refed, **d**ōme berēafod,
I soon am deeply disturbed judgement bereaved
(christ,7.167.113)

We see that alliteration falls on the <d> of *dōme* which implies that its first syllable is stressed (since *dōme* is disyllabic the first syllable is an open syllable generally bearing primary stress).

(139) Gehyrað, higeglēawe, hālige rūne, **w**ord ond **w**īsdōm.
obeyed highly-wise holy letter word and wise-judgement
(cynew,75.332.363)

(140) þæt hē Hēardrēde hlāford wǣre oððe þone **c**ynedōm **c**īosan wolde;
the he firm lord were or the kingly-authority chose wanted
(beowul,74.2373.1933)

In these two examples with the formations *wīsdōm* and *cynedōm* alliteration falls on the first part of the formation and thus they are also stressed. This implies that the second element *dōm* is not stressed (at least it does not bear primary stress), which would further imply that these formations are compounds showing compound stress. Since we want to demarcate syntactic phrases from non-phrases, i.e., morphological formations, we could also say that in the following we will make a difference between phrasal and non-phrasal stress.

Coming back to the semantic criteria, we stated in chapter 4.2 that syntactic phrases are semantically compositional and show a referential reading. Naturally, this can also be applied to the data with free *dōm* as head in syntactic phrases:

(141) Đā gelīcode þām gedwolum **þæs bisceopes dōm**, ...
then pleased the heretics the bishop's judgement
(ÆLS_[Basil]:338.675)

If we take a closer look at the text (*Ælfric's Lives of Saints*) we find that it is one specific bishop, Basilius, who is the topic of the text. Therefore, the phrase clearly has a referential reading. We also postulated that morphological complexes like compounds show a non-referential reading:

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[36] Again, only the relevant alliterative parts of the text are indicated.

(142) and lufode þa drȳcræft and þæs dēofles **þēowdōm**;
and loved the witchcraft and the devil's servant-status

(ÆHom_8:132.1233)

(143) wæs þēahhwæðere his **martyrdōm** samod mid þām ēadigan Petre
was nevertheless his martyr-status together with the blessed P.
gefremmed.
accomplished

(ÆCHom_I,_27:400.4.5228)

Let us survey another example in more detail because the formation may show both a referential and a non-referential reading (and thus semantic change), and it also shows that orthography is clearly not a criterion that can be brought forward in defining compounds (see the discussion in chapter 2). The morphological complex we survey here is *dōmes dæge* also appearing as *dōmesdæge*: out of 100 investigated texts 29 contain a compound that is written either in two separate words *dōmes dæge*, or in one word *dōmesdæge*. Most of these texts show a consistent spelling, the *Blickling Homilies* with 18 cases of writing of two separate words and 1 case of one word.

(144) … oþþæt Drihten cymeþ on **dōmesdæg**, & hāteþ þa eorþan eft
until Lord comes on doomsday and commands the earth again
āgifan þæt hēo ǣr onfeng.
give-up what she before received

(HomS_8_[BlHom_2]:21131.285)

(145) ond þæt geweorþeþ on **dōmes dæge** þæt hē cymeþ tō dēmenne cwicum &
and that happens on doomsday that he comes to judge living and
dēadum.
dead

(HomU_18_[BlHom_1]:9.125.122)

The example below shows a syntactic phrase with *dæg* as nominal head, preceded by a nominal genitive *dōmes* that is modified by *egeslica*. Thus, the adjective only refers to *dōmes*: 'the day of dreadful judgement'. It is also clear from the context that it is a specific judgement that is talked about and so the compounds in the examples above, be they written in one word or two separate words, actually also show a referential reading:

(146) … þæt [$_{\text{Nom}}$ **sē** [$_{\text{Gen}}$ **egeslica dōmes**] **dæg**] cymeþ on þa tīd þe
that the dreadful judgement's day comes on the time when
Godes sunu on rōde galgan þrōwode.
God's son on rood's gallow suffered

(HomS_10_[BlHom_3]:27.24.376)

As concerns the spelling, overall *dōmesdæge* in one word is less frequent: we find 76 cases of *dōmes dæge* and 31 of *dōmesdæge*. One text, however, behaves differently: the *Vercelli Homilies* show the writing of *dōmesdæge* in two separate words in 7 cases and the writing in one word in 9 cases:

(147) Witodlīce wē cumað orsorge on **dōmes** **dæge** tōfōran Cristes þrymsetle,
surely, we come safely on judgement's day before Christ's throne
(HomM_13_[ScraggVerc_21]:116.2721)

(148) & mycel folcgedrēfnesse bīð ðonne ǣr **dōmesdæge**,
and much tribulation is then before judgement's day
(HomU_6_[ScraggVerc_15]:17.1862)

The examples also serve to illustrate that there is no difference in meaning between the two forms, in all cases *dōmes dæge* and *dōmesdæge* may either have a referential 'the day of the judgement' or a non-referential reading 'the last day of the Earth's existence'. Moreover, this formation is a case where the genitive case marking on the first element is present although *dōmesdæge* is written in one word and remains until today (ModE *doomsday*). This seems to be an exception and the question is why this is so. One explanation could be that this word is an early compound, i.e., it was used as a compound before case marking was lost during the ME period. This assumption is strengthened by the fact that it has lost its semantic compositionality, a property attributed to lexicalised compounds.

Coming back to what was said above, for *dōm* we can now assume the following semantic criterion:

(149) Semantic Criterion I: syntactic phrases of the type [$\text{Noun}_{\text{agreement}}$ + $\textit{dōm}_{\text{agreement}}$] are semantically compositional and have a referential reading. Compounds of the type [Noun + *dōm*] have a non-referential reading.

Further, we would expect to find the meaning(s) of *dōm* given in the OED entry if they are compounds because the element would have to be analysed as a free element by speakers, and we also expect to find some idiosyncrasies. Moreover, if we apply Messing's semantic criteria we would also expect to find the activity reading and the event reading of these formations. To see if this is borne out we will first survey the type Adjective + *dōm*.
In Table 4.45 the formation with the by far highest frequency is *wīsdōm*. This formation seems to be well established in the speaker's lexicon by that time. It still occurs with a transparent meaning 'wise judgement' (event or resultative) as can be seen from the following example:

(150) Ðurh cyninges **wīsdōm** folc wyrð gesǣlig, gesundful and sigefæst.
through king's right-judgement people become happy, sound and triumphant
(WPol_2.1.2_[Jost]:11.13)

It also occurs with the (less transparent) meaning 'knowledge' (that arose due to a metonymic shift):

(151) þæt syndon þa witan, þe ðone **wīsdōm** habbað and fram Gode þone ānweald
that are the wise-men who the knowledge have and from God the power
(ÆHom_14:183.2098)

Frēodōm with the second highest frequency of occurrence in the table also still shows a transparent meaning *frēodōm* = 'free authority' (special right or privilege) as illustrated with the following example

(152) ond Bretta ēac swelce micel dæl **frēodōm** onfengon.
and Britons likewise such great part free-authority received
(Bede_4:27.358.13.3601)

or with the (less transparent) reading 'liberty, free will'[37]:

(153) þær bīð þēowdōm butan **frēodōme**, & unrōtnes butan gefēan.
there is slavery-state without free-authority and sadness without joy
(HomU_15.1_[Scragg]:102.62)

Thus, for these two formations transparent meanings as well as less transparent meanings occur.

Apart from formations that occur more than once, we also find two types occurring as hapaxes: *unrihtwīsdōm* and *scæcdōm* (the latter one has a verbal base):

(154) Đær stōdon þā mā þonne twentig þūsend manna. mid Egeas breþer
there stood then more than twenty thousand men with E's brother
samod clypigende. **unrihtwīsdōm**. þæt sē hālga wer swā þrōwode.
together calling. unjust-judgement that the holy man so suffered
(ÆCHom_I,_38:518.311.7773)

(155) Þā nolde Iacob cȳðan hys **scæcdōm** hys swēore.
then not-wanted I. make-known his fleeing-act his father-in-law.
(Gen:31.20.1249)

The formation *unrihtwīsdōm* includes the meaning 'judgement' and therefore shows a fair degree of transparency. The other hapax *scæcdōm* denotes the 'activity of fleeing or having fled from authority' and is less transparent. These formations quite nicely show the development from transparent to less transparent (with idiosyncratic being the extreme).

Now let us survey the type Noun + *dōm*. The formation with the highest frequency is *Crīstendōm*. It occurs with the following meanings:

(156) Đonne cweþ sē fūl gāst þæt hē fāran wylle intō his hūse of þām
then says the foul spirit that he go want into his house of those
þe hē ūt fērde, intō þām Cristenan men gif hē **his Crīstendōm** ne
who he out drove into the christian man if he his christian-faith NEG
hēalt mid gōdum bīgengum,
holds with good observance
(ÆHom_4:235.647)

In this example it is clear that the scribe talks about somebody's Christian faith, so "his Cristendōm" can only refer to a single person's property or action: 'to act or do like a Christian'. Here, the verb *hēaldan* 'hold' indicates that it is the activity reading that is denoted here. In the next example *Crīstendōm* does not occur with a possessive but with a definite article and is the argument of the verb 'do':

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[37] In some texts, *frēodōm* is the translation of Latin *libertas, emancipatio.*

(157) Hī sceolon **þone Crīstendōm** dōn Crīstes folce, and mid heora lāre
they shall the christen-faith do Christ's folk and with their teaching
symle tō gelēafan wēman,
feast-day to believe announce

(ÆHom_19:158.2763)

Here, the scribe talks about a group of people "that should do the Christendom of Christ's folk". This means that "they shall perform the christian faith . . . " which is based on Christian authority, rules and beliefs, i.e., the activity reading can be found here[38]. The phrase "to do Cristendom" seem to have parallels in "to don dom" which implies that the meaning 'judgement, authority' is still somewhat transparent, and the active reading of *dōm* is still present.

The formation *lǣcedōm* has two meanings (according to BT it has only the first one given here, according to Clark Hall it has the two meanings given): 1. medicine, medicament, 2. healing, salvation. Thus, an activity reading, a result reading, and also an object reading can be found here:

(158) Sēo andetnysse is sē **lǣcedōm** ūre synnen mid þǣre sōðen dǣdbōte.
the confession is the salvation our sins with the true repentance
(Alc_[Warn_35]:358.262)

(159) & he forgæf eac manegum oþrum **lǣcedōm** & mundbyrd, þe þyder
and he gave also many others medicine and protection who thither
æfter þon geflugon to his byrgenne.
after that fled to his castle

(GD_1_[C]:4.43.12.480)

The latter example illustrates that this formation has an idiosyncratic meaning (compared with the other formations with *dōm*). The development from activity reading, via result reading to object reading is traceable here. Since suffixes regularly denote an abstract state (result) but not a concrete one (at least regularly), the formation *lǣcedōm* is not a regular derivation. It is one of the idiosyncrasies typical of lexicalisation processes (according to the diachronic definition, see chapter 3).

This observation can also be made for another formation, *ealdordōm*. Its frequency of occurrence is 30 and its meaning is 'authority':

(160) and ic hæbbe **ealdordōm** on mīnum earde, ðe is gehāten
and I have judgement-of-a-chief in my country that is called
Cappadocia,
C.

(ÆLS_[George]:28.3077)

But what about the status of the element? We could say that the meaning of *ealdor* 'elder, chief' + *dōm* 'judgement' is still transparent implying that this element is still a compound. However, we also find an example like

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[38] The fact that *Cristendōm* occurs in a context where a group of people with a particular faith is mentioned makes it possible for *Cristendōm* to develop the meaning 'collectivity' as will be shown in the next section and in chapter 6.

(161) and feng Ælfric to þam ilcan **ealdordōmscipe**.
and received A. to the same office-of-alderman

(ChronC_[Rositzke]:983.1.1211)

where the formation *ealdordōm* is followed by *-scipe* denoting the 'office of alderman'. This example may serve to reveal the status of this formation: it will be shown below that OE *-scipe* is one step ahead in the development meaning that is has the status of a suffix. Therefore, it must be assumed that *ealdordōm* has the status of a lexicalised formation with the suffix *-scipe*. *Ealdordōm* is probably analysed as simplex which is why the suffix *-scipe* can be attached[39].

As shown above, most formations found partly display the salient meanings 'judgement' and 'authority' like *martirdōm*, *þēowdōm*, *hǣðendōm* and also the meaning 'rank' as in *bisceopdōm*. Moreover, some of them may exhibit, according to context, the salient meanings of *dōm* as *bisceopdōm* which is still found with the meaning 'a bishop's doom, excommunication' (see BT)[40], and *cynedōm* 'the authority of a king'. The following examples present further instances of formations with *dōm* with these salient meanings (those that occur with low frequencies, the last two are hapaxes):

(162) Hit gelamp sumon dæge, þæt sē abbod, þe æfter þæs ārwurðan
it happened one day that the abbot who after the honoured
Honorates forðfōre heold þæs mynstres **reccendōm**,
H's death held the monastery's ruling

(GD_1_[H]:2.20.18.174)

(163) & ðīn **rīcedōm** ofer ūs rixie symble,
and thine kingly-rule over us rule forever

(WHom_7a:9.512)

(164) & hū hī hit frēodon wið king, & wið biscop & wið ealle
and how they it embraced with king and with bishop and with all
weoruldþēudōm.
secular-servitude

(ChronE_[Plummer]:963.21.1408)

The first two formations *reccendōm* and *rīcedōm* both show the meaning 'authority' of *dōm*, the last example shows that *þēowdōm* is modified by the preceding element *weoruld*. Concluding, we can say that with respect to the semantics of these formations up to that point we do not find one consistent abstract meaning for all the formations given; instead the formations still display the salient meanings of *dōm* as well as meanings that arose due to metonymic shifts from these meanings. There are also some formations that seem to be semantically lexicalised. This state of affairs is not expected if all these formations were

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[39] It can be compared with a formation like ModG *Altertumschaft* 'dōminion of alderman'. Here, we also seem to have two suffixes, *-tum* and *-schaft* but a native speaker of German does not analyse *Altertum* due to its high frequency and non-compositionality. Therefore, it is best analysed as simplex plus suffix *-schaft*.

[40] This meaning is found in the following example: *Sȳn hī bēgen ðæs bisceopdōmes scyldige* "let them both be guilty of the bishop's doom".

derivations. Therefore, they are compounds where some of which tend to develop towards derivations.

To sum up, it was shown that in OE *dōm* behaves quite similar to *hād* with respect to the proposed criteria. It has been shown that it occurs as free morpheme as well as head of compounds. In the next section, the further development of *dōm* will be described.

4.3.3 *dōm* in Middle English

We will continue here with investigating the development of *dōm*. First, let us take a look at the entry of the MED to find out what is assumed about the status and meaning of this element in ME: First, we find the free form with quite a number of meanings (here I give only the most salient meaning)[41]:

> *dōm* (n.) Also *dōim*, *dūm*.
> [OE *dōm*]
> 1a.
> (a) The administering of justice; the act of judging; *don* ∼, to administer justice; *sitten in (upon)* ∼, sit in judgment; (b) a court of law; also, a public assembly, a royal or papal court; *don to* ∼, to submit (sth.) to a judge or court; *sweren in* ∼, take an oath in court, testify under oath; (c) a trial, lawsuit, hearing before a judge; *buten* ∼, *withouten* ∼, without a trial, without a hearing; *drawen to* ∼, to bring (sb.) to trial; (d) a trial by ordeal.

The free element occurs 168 times in the corpus and predominantly shows these salient meanings; we find it in fixed expressions like *don dōm* 'to administer justice', *sitten in dōm* 'sit in judgement', *sweren in dōm* 'take an oath in court', *demen (dighten) dōm* 'to make a law'. The latter one occurs with a high frequency in the corpus. An example is given below:

(165) þenne wille god **deme** his leste **dōm**.
then will god make his last judgement

(LAMB1,143.308)

In all cases where *dōm* occurs as free morpheme (modified by an adjective) the salient meaning of *dōm* is 'judging' or 'judgement': 'the administering of justice, the act of judging (activity reading), a judicial decision, a sentence at law (resultative reading), the power to rule or govern, dominion':

(166) And in þat same gere þe grete debate betwix þe kyng and his barnes
and in that same year the great debate between the king and his children
was compromitted to **þe dōm** of þe kyng of Frauns, þat whatsoeuyr he
was agreed to the court of the king of France, that whatsoever he
dempt, þei schuld obserue.
judged, they should observe

(CAPCHR,124.2806)

As can be seen from example (166) above, *dōm* denotes the place where justice is administered.

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[41] For a comprehensive list with all possible meanings see MED.

(167) Than þe kyng gaue **þis dōm**, þat þis Gask schuld neuyr haue
then the king gave this judicial-decision, that this G. should never have
o fote of lond in his possession til he was reconciled to þe kyng of
one foot of land in his possession until he was reconciled to the king of
Ynglond, ...
England

(CAPCHR,127.2920)

In example (167) *dōm* is administered by a king, so here we find the relation between 'judging', 'power', 'authority' (and also 'dominion'). The following examples show *dōm* modified by adjectives:

(168) he is iproued now a man, suffryngge **fals dōm** of curside
he is proved now a man suffering dishonest judgement of cursed
schrewes,
rogues

(AELR3,47.667)

(169) ne þey schulle not apele fro eny **vnrytful dōm**;
NEG they shall not appeal from any unrightful judgement

(AELR3,57.986)

(170) and gief he him set a speche. and mid **woge-dōme** binimeð him his biliue
and if he him set a speech and with injustice destroy him his belief
þat he haueð dere boht mid his ogene sowle.
that he has dearly bought with his own soul

(TRINIT,179.2446)

Apart from an entry for the free form, the MED also includes *dōm* as suffix:

> *-dōm* (suf.) 1. In nouns formed on nouns, denoting office, rank, status, or state, but also the domain or realm of an office or institution. (a) From OE: *alder-dōm*, *kine-dōm*, *king-dōm*; *crīsten-dōm*, *hethen-dōm*; *martir-dōm, theu-dōm*, etc.; (b) formed in ME: *duk-dōm, thral-dōm*. 2. In nouns formed from adjs., denoting a state. (a) From OE: *frē-dōm*, *hali-dōm*, *wīs-dōm*; (b) formed in ME: *caitifdōm,fals-dōm, swikel-dōm*. 3. In at least one noun formed on a verb stem in ME: *the-dōm* 'prosperity' (from *the-n* 'prosper'). 4. Specialized senses appear as in *hali-dōm* a sanctuary, *wlēche-dōm* a remedy, *wīs-dōm* a proverb or saying.

First of all, *dōm* is classified as a suffix. Further, it is noted that it occurs in nouns with nominal and adjectival bases; for both types a number of forms are given from OE which could indicate the lexicalised status of these forms. Moreover, it is said that specialised senses appear, and if we survey the formations given under 4. we see that they all have a resultative reading, some of them (*lēchedōm*) even an object reading, implying that these forms are also subject to lexicalisation. It could also be inferred from the entry that in ME few formations are built, since there are only few given here. Thus, the statement that it is a suffix is even more surprising since we would expect to find more formations. The examples given here could well be, and are likely to be, forms built in analogy. With respect to phonological properties note that *dōm* still has a long (closed) vowel [o:]. This property will become important later (see below).

As concerns the first point it is not clear why *dōm* is treated as suffix here. Second, the meaning of the formations with adjectival base are said to denote a state, contrary to Dalton-Puffer (1996) who assumes the following meanings

(171) a. 'condition (dominion, authority, state) of a N'
b. 'collectivity of Ns in condition of N'
c. 'quality of being A'

A parallel to the pattern OE Adjective + *hād* can be drawn: it was shown that adjectives like *clǣne* function as relational adjectives and in combination with *hād* denote a relation ('an office for pure persons' in this example). This also applies to Adjective + *dōm*, to illustrate this point recall the OE example of *frēodōm*:

(172) ond Bretta ēac swelce micel dæl **frēodōm** onfengon.
and Britons likewise such great part special-rights received
(Bede_4:27.358.13.3601)

The literal meaning is 'free judgement' where free functions as relational adjective. We will come back to this point below.

Formations of the type Noun + *dōm* are given in Table 4.46:

Formations with Noun + dōm in M1				
	M	**B**	**T**	**OE**
	'christian-faith'	436	58	+
kinedōm	'king-authority'	717	23	+
þēowdōm	'servant-status'	50	17	+
hōredōm	'whore-state'	146	14	
martirdōm	'martyr-status'	83	9	+
lǣcedōm	'medicine (medical law)'	39	4	+
eorldōm	'earl-rank'	484	3	+
rīcedōm	'kingly-authority'	103	2	+
lauerdōm	'lord-judgement'	3326	2	
popedōm	'pope-rank'	1025	1	
Total			133	

Table 4.46: *Formations with Noun + dōm in M1*

If we compare this table with formations in Table 4.44 (p. 93), only three new formations occur: *hōredōm*, *lauerdōm* and *popedōm*. According to the criterion of productivity at this point *dōm* is not used productively to build new formations because only *popedōm* has hapax status in the table above. The formation *crīstendōm* shows the highest token frequency, and since it also occurred in OE with the highest frequency we can assume that it is a well established formation. If relative frequency is considered, and if the stem frequency and frequency of that formation in OE is compared with ME, we find that in both periods the stem frequency is always much higher than the frequency of the formation (153/117 in OE, and 436/58 in ME). This also applies to the other formations in M1. If relative frequency were a criterion to determine the lexicalised stage of formations, we would expect to find differences here. However, this is not borne out and the findings for *dōm* resemble the findings for *hād/-hēde*. Thus, the findings lead to the conclusion that relative frequency cannot be used to define change in word-formation. The same finding is expected for *-ship*.

Coming back to the formation *crīstendōm* listed in the table above, interestingly, the meaning of this formation is in most examples 'Christian faith' as is illustrated below:

(173) Ðre þing ben þat elch man habben mot. þe wile his **crīstendōm**
Three things are that each man have must who want his Christian-faith
leden.
conduct

(TRINIT,15.164)

(174) þu miht wunigen on ðare woreld, and ec bien geboregen, gif ðu
thou might dwell in the world and also be save if thou
ðinne **crīstendōm** wel haldst.
thine Christen-faith well hold

(VICES1,73.823)

Note that 'faith' in this context implies the belief in traditional doctrines of the Christian religion, and exactly this is the connection between the salient meaning of *dōm* and a metonymic shift arising in compounds like *crīstendōm* due to the semantic sensitivity of *dōm* to its base. If we compare this formation with *hæðendōm*, which has an adjectival base referring to persons, we find this meaning again (*crīstendōm* is the 'right' faith, *hæðendōm* is the 'wrong' pagan faith, see also chapter 5):

(175) Þin Godd & all hiss lare, & all forrwerrpenn **hæþenndōm** &
thine god and all his preaching and all reject heathen-faith and
oþre Goddess alle,
other Gods all

(ORM,I,43.446)

(176) Wass full off iwhillc **hæþenndōm**, All affterr deofless wille.
was full of every heathen-faith all after devil's will

(ORM,I,226.1884)

As noted above (chapter 4.2), Sauer (1992: 230) observes that due to Orm's consistent spelling system in the *Ormulum* short vowels are marked with following double consonantal graphs, and therefore the spelling of *hæþenndōm* in (175) and (176) reveals its phonological status: the vowel in *dōm* has a long quality, otherwise Orm would have written *dōmm*. Due to the fact that Orm's spelling system and his iambic metre is so consistent, we can use them as criteria to determine the status of the noun *dōm* (as we have done above for *hād*) when it occurs on its own and when it occurs as the determinatum of a compound. As the examples (177) to (179) show this is also borne out for *dōm*:

(177) Tosámenn stánndenn átt te **dóm** O ríhht hallf bí þe Déme,
together stand at the judgement on right half by the judge

(ORM,I,20.273)

(178) Wass full off íwhillc **háéþenndōm**, All áffterr déofless wílle.
was full of every heathen-faith all after devil's will

(ORM,I,226.1884)

(179) & éc forr þátt he wóllde swá Þurrh híss **þeowwdōm** utlésenn Off
and also for that he wanted so through his subjugation-state free of
déofless **þéowwdōm** álle þá, Þatt wél himm shólldenn fóllȝhenn.
devil's subjugation-state all those that well him should follow
(ORM,I,124.1072)

In (177) *dōm* occurs as free morpheme in a stressed position. In formations like *þeowwdom* it depends on the position where the formation occurs (there is a contrast between the two occurrences of *þeowwdom* in (179) depending on its metric position). We can conclude that when*dōm* occurs as the head in a compound it may bear stress implying that it still was a free word at that time.
Another formation found is *hōredōm*. Since the meanings of the forms listed and discussed so far are 'office, power, authority, faith' it seems that the only possible reading would be 'state of being a whore'. We find the following examples:

(180) Swo ben alle oregel men. þe telleð hem seluen heige. and drieð
as are all proud men who tell them selves high and commit
hōrdōm. and of þe hore fule stinkeð.
adultery and of the hore foul stink
(TRINIT,37.506)

Here, *hōredōm* clearly has the meaning 'fornication, illicit sexual indulgence' (a meaning it still has in ModE). However, we also find the formation in religious treatises:

(181) & horedōm iss Drihhtin laþ, & deofell swiþe cweme,
and unfaithfulness is Lord hateful and devil very agreeable
(ORM,I,160.1317)

with the meaning 'to be unfaithful toward God, deviation from acceptable religious practice'. These examples show that the meaning of the formation is not solely determined by the relation between first and second element (or base and suffix) but also by the context. Moreover, the salient meanings of *dōm* are not transparent here. Thus, this formation could be an example with the more general meaning 'state of N'.

The one formation occurring as hapax, *popedōm*, does not confirm this finding though:

(182) & Honorius feng to **Pāpedōm**.
and H. took-hold-of to pope-authority
(PETERB,46.135)

Here, *popedōm* clearly has the meaning 'authority of N'.

Next, let us have a look at the formations of the type Adjective + *dōm* in M1 which are given in Table 4.47 (p. 105). *Wisdōm* occurs as formation with the highest frequency. The other formations found are much less frequent. The only formations that have not occurred yet in the data are *wrecchedōm* and *uselldōm*. They are both hapaxes and, according to the criterion of productivity, show that *dōm* productively builds formations with an adjectival base. Some examples are given below:

(183) milce haue & merci wummon of mi **wrecchedōm**.
forgiveness have and mercy woman of my reprehensible-state
(JULIA,113.296)

Formations with Adjective + dōm in M1				
	M	**B**	**T**	**OE**
wīsdōm	'wise-judgement'	184	65	+
swikedōm	'deceived-judgement'	17	9	+
hǣðendōm	'heathen-authority'	58	13	+
hāligdōm	'holy-office'	1288	4	+
frēdōm	'free-authority'	92	3	+
wrecchedōm	'wretched-state'	127	2	
unwīsdōm	'foolish-judgement'	7	1	+
uselldōm	'wretched-state'	4	1	
Total			98	

Table 4.47: *Formations with Adjective + dōm in M1*

(184) for ne mei na muð for **wrecchedōm** ne for wa; rikenin
because neither may no words for reprehensible-state nor for evil mention
hit ne tellen.
it nor tell

(SAWLES,171.72)

Both instances of *wrecchedōm* denote the 'state of being A'. This formation seems to be newly built. The other formation with hapax status *uselldōm*

(185) To libbenn her onn eorþe Full wrecchelike inn **uselldōm** Off metess
to live here on earth full wickedly in reprehensible-state of food
& off claþess.
and of clothes

(ORM,I,127.1093)

occurs once in the *Ormulum* which is known to contain many loan words from Old Norse (ON). *Usell* as the base is also of ON origin and could have been perceived as foreign or non-native. If that was the case it would be an interesting example because it would imply that the speaker decomposed formations with *dōm* being aware of the fact that *dōm* is a word-formation element denoting a state. He would have then been able to build a new word to its liking *usell* + *dōm* with the meaning 'state of being wretched'. However, since we only find few new forms this could also be an instance of analogy. Up to this point, it is not clear whether cases like this one are instances of compounds or derivations.

Table 4.48 shows the morphological patterning of the two types of formations Noun + *dōm* and Adjective + *dōm* in M1.

Morphological patterning of dōm in M1			
Base	type	token	type/token frequency
N	10	133	0.07
A	8	98	0.08

Table 4.48: *Morphological patterning of dōm in M1*

Compared to the findings for OE we see that the token frequency for both types radically decreased (for N from 437 to 146, for A from 414 to 85). Although the type/token ratio is higher in M1 it does not reflect an increase of more new types. In fact it seems as if hardly

any new forms are built. Nevertheless, these forms show a more general meaning ‘state of N’ and ‘state of being A’.

For the M2 period, the formations of the type Noun + *dōm* occur as given in Table 4.49.

Formations with Noun + dōm in M2				
	M	**B**	**T**	**OE**
kingdōm	‘king-authority’	717	7	+
hōredōm	‘whore-state’	146	3	+
crīstendōm	‘Christian-faith’	436	3	+
thraldōm	‘servant-status’	39	1	
Total			14	

Table 4.49: *Formations with Noun + dōm in M2*

As can clearly be seen from the table, the only new form is *thraldōm* occurring in the following context:

(186) þet god heþ yvryd be grace / and be uirtue / uram þe **þreldōme** of
that god has freed by grace and by virtue from the enslave-power of
þe dyeule and of zenne: ...
the devil and of sin

(AYENBI,86.1682)

In this context, *þreldōm* has the meaning ‘the power to enslave someone, domination’ (as opposed to the meaning given in the table above, see MED), and shows the salient meaning of *dom*: ‘authority (rule)’.

Next, let us have a look at the formations of the type Adjective + *dōm* given in Table 4.50:

Formations with Adjective + dōm in M2				
	M	**B**	**T**	**OE**
wīsdōm	‘wise-judgement’	184	18	+
frēdōm	‘free-authority’	92	11	+
Total			29	

Table 4.50: *Formations with Adjective + dōm in M2*

Only two types occur, *wīsdōm* and *frēdōm* that both exhibit a high frequency of occurrence and have both occurred in earlier periods in the corpus. Therefore, they are both established words in the speaker’s lexicon. *Wīsdōm* occurs in contexts like

(187) uor þet is þe zoþe **wysdōm**. þet alygt þe herte of
because that is the true-understanding that alights the heart of man
man. ase deþ þe zonne þe wordle.
as does the sun the world

(AYENBI,81.1588)

(188) Loke hou oure guode spekeman / and oure zuete mayster Iesu crist /
look how our good spokesman and our sweet master Jesus Christ
þet is þe **wysdōm** of god þe uader
who is the true-judgement of god the father

(AYENBI,99.1947)

In the first example the meaning ‘the gift of spiritual or moral understanding’ is found (mainly in religious texts; the general meaning would be ‘judgement or prudence’ or ‘an intellectual faculty or gift’, see MED). In the second example it is used as an attribute of Christ: supreme wisdom; true judgement; omniscience (it sometimes is also used as a title or name of the Trinity). In general, it denotes an ability including right judgement.

As concerns the second type, *frēdōm* it occurs in contexts like the following:

(189) … þet þe man heþ þri maneres of **uridōm**. þe one of kende.
that the man has three kinds of status-of-free-man the one of kind
þe oþre of grace / þe þridde of blisse.
the other of grace the third of bliss

(AYENBI,86.1670)

In this example (and in many others) *frēdōm* includes ‘social status of a free man’ implying nobility, generosity and liberality, freedom of action’ (MED). Thus, in general it denotes ‘the state of being free’ which is specified according to context. Although we cannot find many forms, it seems that the meaning of these forms gradually obtain one general meaning ‘state of N’ and ‘property of being A’, an observation that speaks in favour of *dōm* being, or better, gradually developing into a suffix.
Table 4.51 shows the morphological patterning of the two types of formations Noun + *dōm* and Adjective + *dōm* in M2:

Morphological patterning of dōm in M2			
Base	type	token	type/token frequency
N	4	14	0.28
A	2	29	0.06

Table 4.51: *Morphological patterning of dōm in M2*

Next, we will deal with the formations with *dōm* in M3. Those of the type Noun + *dōm* are given in Table 4.52.

Formations with Noun + dōm in M3				
	M	**B**	**T**	**OE**
kingdōm	‘king-authority’	717	115	+
thraldōm	‘servant-status’	39	9	
crīstendōm	‘Christian-faith’	436	7	+
hōredōm	‘whore-state’	146	3	
eorldōm	‘earl-rank’	484	3	
martirdōm	‘martyr-status’	83	2	+
Total			139	

Table 4.52: *Formations with Noun + dōm in M3*

A similar picture to M1 and M2 can be found here: compared to the other findings in the periods discussed so far no new formation occurs. The formation *kingdōm* occurs with the highest token frequency. The other formations occur with much lower frequencies. For *kingdōm* the following examples can be found:

(190) Clodoneus, after his fader Dogobertus, regnede in Fraunce seventene gere of
C. after his father D. reigned in France seventeen years of
his **kingdōm**;
his dominion

(POLYCH,VI,87.612)

(191) First gif a man come from the west syde of the world as Engelond
first if a man comes from the west side of the world as England
Irelond Wale Skotlond or Norweye he may gif þat he wole go þorgh
Ireland Wales Scotland or Norway he may if that he wants go through
Almayne & þorgh the **kyngdōm** of hungarye þat marcheth to the lond
Allemagne and through the territory of Hungary that marches to the land
of Polayne
of Poland

(MANDEV,4.48)

In the first example *kingdōm* denotes 'dominion, authority', in the second example it denotes 'the territory over which a king's power extends, realm, country' (see MED). Thus, the meaning 'territory' occurs due to a metonymic shift from the authority of a king to the territory over which a king has the authority (see e.g. also Sauer (1992: 230)).

In Table 4.53 formations of the type Adjective + *dōm* in M3 are listed:

Formations with Adjective + dōm in M3				
	M	**B**	**T**	**OE**
wīsdōm	'wise-judgement'	184	36	+
frēdōm	'free-status'	92	19	+
Total			55	

Table 4.53: *Formations with Adjective + dōm in M3*

Here again, as in M2, only two types occur which are the same as in M2: *wīsdōm* and *frēdōm*. They also occur in the same contexts with the same meanings given above.

(192) and seyin that Goddis **wīsdōm** was in him to make dōm.
and said that God's perfect-knowledge was in him to make judgement

(PURVEY,I,12.475)

(193) and Pictes and Scottes and meny of þe Bretouns feng her londes wiþ
and Picts and Scots and many of the Britons received their lands with
fredōm agen.
free-status back-again

(POLYCH,VI,151.1056)

The morphological patterning of both types of formations, Noun + *dōm* and Adjective + *dōm* is given in Table 4.54, (p. 109).

Finally, we will deal with the M4 period. Formations of the type Noun + *dōm* are given in Table 4.55, (p. 109). Again, compared with the findings from the other ME periods, we do not find new formations here. The same applies to the type Adjective + *dōm* formations of which are given in Table 4.56, (p. 109):

Morphological patterning of dōm in M3			
Base	type	token	type/token frequency
N	6	139	0.04
A	2	55	0.03

Table 4.54: *Morphological patterning of dōm in M3*

Formations with Noun + dōm in M4				
	M	**B**	**T**	**OE**
kingdōm	'king-authority'	717	16	+
crīstendōm	'Christian-faith'	436	6	+
thraldōm	'servant-status'	39	5	
martirdōm	'martyr-status'	83	3	+
Total			30	+

Table 4.55: *Formations with Noun + dōm in ME 4*

Again *wīsdōm* and *frēdōm* occur (with very different frequencies though) and also *holydōm* that has occurred in M1. As in M1 *hāligdōm* has the meanings 'sacred relics, holiness, sanctity' (see MED). Thus, the first case is the result of the discussed development, it is an object and resembles the formation *lǣcedōm*. An example from this period is given below:

(194) so helpe gow God and **Holydōm**.
so help you God and sacred-relics

(REYNES,144.51)

By comparing the tables for all formations with *dōm* in ME we gain the picture that the element is not productively used to build new formations. We hardly find hapaxes indicating neologisms and therefore, under the assumptions made for productivity (criterion of productivity), we must conclude that *dōm* is not productive which might also imply that it is not a suffix. All formations of the type Noun + *dōm* are summarised in Table 4.57, the morphological patterning of both types of formations, Noun + *dōm* and Adjective + *dōm* is given in Table 4.58 (both on p. 110).
We see that there is a contrast between the two types: for the type Noun + *dōm* the type/token ratio is higher than for the type Adjective + *dōm*: If we have a look at Table 4.58 again we see that *wīsdōm* occurs with a high frequency and therefore the overall token frequency for all the types is quite high.

Concluding, Table 4.59 (p. 110) gives the morphological patterning of all four periods in ME:

Formations with Adjective + dōm in M4				
	M	**B**	**T**	**OE**
wīsdōm	'wise-judgement'	184	79	+
frēdōm	'free-status'	92	6	+
holydōm	'holy-status'	1288	3	+
Total			89	

Table 4.56: *Formations with Adjective + dōm in ME 4*

Formations with Noun + dōm in ME				
	M	**B**	**T**	**OE**
crīstendōm	'Christian-faith'	436	74	+
kingdōm	'king-authority'	717	161	+
hōredōm	'whore-state'	146	20	
þēowdōm	'servant-status'	50	17	+
thraldōm	'servant-status'	39	15	
martirdōm	'martyr-status'	83	14	+
eorldōm	'earl-rank'	484	6	+
lǣcedōm	'medicine (medical law)'	39	4	+
rīcedōm	'kingly-authority'	103	2	+
lauerdōm	'lord-judgement'	3326	2	
popedōm	'pope-authority'	1025	1	
Total			316	

Table 4.57: *Formations with Noun + dōm in ME*

Morphological patterning of dōm in M4			
Base	type	token	type/token frequency
N	4	30	0.13
A	3	89	0.03

Table 4.58: *Morphological patterning of dōm in M4*

The type/token ratio is higher for the type Noun + *dōm* than for the type Adjective + *dōm*, but in general the ratio of both types is not very high (for the Noun + *dōm* type we seem to have an up-and-down of the value). If we compare the findings for ME with those for OE (see Table 4.60, (p. 111) we gain the following picture:
For both types we find high token frequencies but low type frequencies. This implies that most types occur frequently and just few types are newly built. This finding applies to both periods, OE and ME, and the type/token ratio is quite low for both types. Concluding, in ME it is not clear whether the formations listed in the tables are derivations because we find just few built with new bases (which could indicate that they are compounds). Some of them, however, show more general meanings where the salient meanings of *dōm* are less transparent. These formations could be derivations. Some of them that have been established since OE must be analysed as being lexicalised compounds (according to Bauer's definition). Hence, the

Morphological patterning of dōm in ME				
Period	Base	type	token	type/token frequency
M1	N	10	133	0.07
	A	8	98	0.08
M2	N	4	14	0.28
	A	2	29	0.06
M3	N	6	139	0.04
	A	2	55	0.03
M4	N	4	30	0.13
	A	3	89	0.03

Table 4.59: *Morphological patterning of dōm in ME*

Morphological patterning of dōm in OE and ME			
Old English			
Base	type	token	type/token frequency
N	15	432	0.03
A	8	419	0.01
Middle English			
Base	type	token	type/token frequency
N	12	329	0.03
A	7	258	0.02

Table 4.60: *Morphological patterning of dōm in OE and ME*

ME period shows the beginning of the suffixal status of *dōm* although the indications are not as clear as for *hād* since we find fewer forms and since there is no sudden increase of the adjectival type. In the following, we will further trace the development of *dōm* in ENE.

4.3.4 *-dom* in Early Modern English

In this section we will survey the status of *(-)dom* in ENE. So far we could only tentatively determine its status, i.e., whether it has suffixal status or not. This is mainly due to the observation that we find the same formations with high frequencies in all ME periods but only few with new bases. Further, it was shown that many of these formations have idiosyncratic meanings so that it is hard to find a general meaning comprising them all. We will see with data from ENE whether the behaviour of formations with *(-)dom* changes.

First, the free element *doom* still exists (not surprisingly, since it exists today) and according to ENE dictionaries has the meaning 'judgement, sentence, also sense or signification' (Elisha Coles, An English Dictionary (1676)). In lexicons it occurs with the <oo> spelling for the first time in 1582 (Richard Mulcaster *The first part of the Elementary*). At this stage there must have been a phonological difference between the free element with a long vowel and the "bound" element with a short vowel. This is an instance of phonological weakening which is concomitant of semantic change and changes in frequency indicating that the latter element had developed into a suffix. Hence, phonological weakening, frequency and semantics are useful criteria to define the status of *(-)dom*.

Free *dome/doome* occurs in the following examples from ENE:

(195) *and much blamed for not accepting such advantagious Conditions as were offered him by the Gr: Signor, from whom he had already recovered that goodly K:* ***dome*** *of Hungrie, & gotten its Crowne settled on his son: so as he might have ben in Condition to have diverted all his forces on France, who had now an immense Army ready,* (EVELYN,919.305)

(196) *T. I. Thy* ***doome*** *take hold of thee.* (MIDDLET,8.229)

(197) *C. Custa ce. So sirra, if I should not with hym take this way, I should not be ridde of him I thinke till* ***doomes*** *day,* (UDALL,.581)

In (195) *dome* (note the spelling) denotes 'dominion, territory'. In (196) *doome* with the general meaning of 'judgement' in the sense of 'something bad is going to happen' occurs. This general meaning must have developed from OE *dōm* used in religious context denoting

'the judgement day' that is also found in (197) where it is probably part of an established compound.

The formations found for the type Noun + *-dom* in E1 are presented in Table 4.61.

Formations with Noun + -dom in E1				
	M	**B**	**T**	**ME**
kyngdom	'king-authority'	2610	8	+
martyrdom	'martyr-status'	12	1	+
knightdom	'knight-rank'	292	1	
horedom	'whore-state'	44	1	+
christendom	'Christian-faith'	1	1	+
Total			12	

Table 4.61: *Formations with Noun + -dom in E1*

All formations presented in the table have occurred in ME. An example with transparent meaning is *knightdom*:

(198) Guidotti, the beginner of the talk for peax, recompensed with **knightdom**, a
G. the beginner of the talk for peace recompensed with knight-rank a
thousand crounes reward, a 1000 crounes pension, and his son with
thousand crowns' reward a thousand crowns pension and his son with
250 crounes pencion.
two-hundred-and-fifty crowns pension

(EDWARD,257.27)

The meaning of *knightdom* here is either 'rank' or 'title'. Both meanings are possible since *knight* denotes a person of the ruling class with authority. Moreover, the status of knight can be received from a king or another important person. Since *-dom* has the salient meaning 'authority' it matches the meanings of *knight* quite well. The meaning 'title' is due to a metonymic shift from 'rank' (see also chapter 6). *Martirdom* has a more general meaning 'torment' (to suffer martyrdom) than in ME which could indicate that in ENE *-dom* has suffixal status and that old formations may be reanalysed semantically.

Formations of the type Adjective + *-dom* are few as can be seen from Table 4.62.

Formations with Adjective + -dom in E1				
	M	**B**	**T**	**ME**
wisdom	'wise-judgement'	261	23	+
freedom	'free-authority'	178	1	+
Total			24	

Table 4.62: *Formations with Adjective + -dom in E1*

For both types of formations the meanings discussed for the ME period can be found:

(199) *seing the great **wisdom** and experience that he had in all your affayres, ...*

(AMBASS,3.2,22.8)

(200) *and what other **fredom** may me loke for?* (BOETHCO,20.61)

Clearly, both formations bear a by then non-transparent meaning ('knowledge of all things' and 'liberty'). It could be assumed that the semantic opacity of these forms enhance a more general meaning 'state of N'. It cannot be proved here, since only few formations occur, and those that we find are well established and partly have idiosyncratic meanings. The only new formation is *knightdom* still showing semantic transparency to some degree.

The morphological patterning of formations of the type Noun + *-dom* and Adjective + *-dom* is presented in Table 4.63 below:

Morphological patterning of -dom in E1			
Base	type	token	type/token frequency
N	5	12	0.41
A	2	24	0.08

Table 4.63: *Morphological patterning of -dom in E1*

As shown explicitly with the tables and examples above, in E1 only few formations with both, nominal and adjectival bases, occur. Most of these formations are well established by that time displaying non-transparent meanings. Thus, it must be assumed that *-dom* has not a very strong force to build new formations and the question remains of whether is has suffixal status or not.

In the next period, the pictures does not change. As Table 4.64 shows in E2 we find the following formations of the type Noun + *-dom*:

Formations with Noun + -dom in E2				
	M	**B**	**T**	**ME**
kingdom	'king-authority'	2610	22	+
whoredom	'whore-state'	44	2	+
earldom	'earl-rank'	467	2	+
christendom	'Christian-faith'	1	2	+
Total			28	

Table 4.64: *Formations with Noun + -dom in E2*

Again, the formations given in the table do not show any new bases. Some, like *christendom* that occurred in ME with a high frequency, occur here with only a token frequency of 2 (and above of 1). This might be explained with the fact that in ME we still have a high number of religious texts included in the corpus whereas this is not the case for the ENE corpus.

Formations of the type Adjective + *-dom* are given in Table 4.65.

Formations with Adjective + -dom in E2				
	M	**B**	**T**	**ME**
wisdom	'wise-judgement'	261	17	+
freedom	'free-authority'	178	1	+
Total			18	

Table 4.65: *Formations with Adjective + -dom in E2*

As can clearly be seen the situation in E2 resembles the situation in E1: we only find two established types with low frequencies. The morphological patterning of all formations found in that period is given in Table 4.66 (p. 114).

Morphological patterning of -dom in E2			
Base	type	token	type/token frequency
N	4	28	0.14
A	2	18	0.11

Table 4.66: *Morphological patterning of -dom in E2*

Finally, let us take a look at the period E3. First, formations of the type Noun + *-dom* are given in Table 4.67.

Formations with Noun + -dom in E3				
	M	**B**	**T**	**ME**
kingdom	'king-authority'	2610	66	+
martyrdom	'martyr-status'	12	3	+
christendom	'Christians-faith'	1	3	+
Total			72	

Table 4.67: *Formations with Noun + -dom in E3*

Here, *martyrdom* that has not occurred in the ENE data for E2 occurs again with a frequency as low as that for *christendom*. The other formation occurring in this period is *kingdom* with a rather high frequency (relative to the other frequencies in the table). In all contexts in which the formation occurs the meaning is 'territory'.

(201) *He said the pope had declared that England was his* ***kingdom****, and that he had sent over commissions to several persons:* (BURNETCHA,2,166.172)

(202) *The fear of having a war within the* ***Kingdom*** *having infallibly been what made the defection of the people so universal as it was:* (DRUMMOND,2.4,207.85)

Formations of the type Adjective + *dom* are shown in Table 4.68. This table resembles

Formations with Adjective + -dom in E3				
	M	**B**	**T**	**ME**
wisdom	'wise-judgement'	261	25	+
freedom	'free-authority'	178	18	+
Total			42	

Table 4.68: *Formations with Adjective + -dom in E3*

the tables for formations with Adjective + *dom* in E1 and E2. Again, we only find the two formations *wisdom* and *freedom* with low frequencies. The morphological patterning for this subperiod is given in Table 4.69 (p. 115).

Overall, the picture is quite clear: only few formations occur in ENE, some of them have occurred in OE and/or ME and show high token frequencies. Some cases show a more general meaning which could indicate that the element has suffixal status. Hence, we can conclude that many of the formations with *-dom* have compound status, and few showing new bases and more general meanings may display the suffixal status of *-dom*, i.e., these might be derivations with the element. Table 4.70 (p. 115) lists all ENE formations of the type Noun + *-dom* in ENE:
Table 4.71 (p. 115) presents the morphological patterning of all formations with *-dom* in ENE:

Morphological patterning of -dom in E3			
Base	type	token	type/token frequency
N	3	72	0.04
A	2	42	0.04

Table 4.69: *Morphological patterning of -dom in E3*

Formations with Noun + -dom in ENE				
	M	**B**	**T**	**ME**
kyngdom	'king-authority'	2610	96	+
christendom	'Christian-faith'	1	6	+
martyrdom	'martyr-status'	12	4	+
horedom	'whore-state'	44	3	+
earldom	'earl-rank'	467	2	+
knightdom	'knight-rank'	292	1	+
Total			112	

Table 4.70: *Formations with Noun + -dom in ENE*

If these findings are compared with those from the OE and ME period (see Table 4.72, p. 116) we gain the following picture: We seem to find a high number of Noun + *dōm* formations in OE and ME that decreases in ENE. As shown above, most of these formations start to occur in OE with high frequencies and become well-established and lexicalised (diachronically). Further, we find few formations of the type Adjective + *dōm* but those that we find have a high frequency right from the start (OE). In the course of time, they gain the status of established, lexicalised elements. For both types, Noun + *dōm* and Adjective + *dōm*, the type/token ratio is low and this does not change during the several periods of time (see also what was said about the criterion of productivity above). Since we have many well established forms and very few newly built ones that show a common meaning 'state of being N', we are led to assume that -*dom* may be a "weak" suffix by the end of the ENE period, i.e., one that is not very productive. One reason for this finding could be that the free form coexists denoting 'judgement, fate' and that this meaning is still transparent to some extent in the formations found. Since one criterion for suffixhood seems to be that the free form has a different meaning from the bound form speakers might have always felt the semantic relation between the free element and the one occurring in formations, and this might have hampered its development into a suffix. If the type/token ratios are compared in the several periods of time we see that actually in ENE -*dom* should be most productive (0.05). What is not taken into account in the frequency

Morphological patterning of -dom in ENE				
Period	Base	type	token	type/token frequency
E1	N	5	12	0.41
	A	2	24	0.08
E2	N	4	28	0.05
	A	2	18	0.11
E3	N	3	72	0.04
	A	2	42	0.04

Table 4.71: *Morphological patterning of -dom in ENE*

measures is, however, that all forms have occurred before. Thus, to gain a more adequate picture we would have to count only new formations in each period, the mere type/token ratio at least does not give an adequate result from a diachronic perspective.

Morphological patterning of dōm/-dom in OE, ME and E			
Old English			
Base	type	token	type/token frequency
N	16	437	0.03
A	7	412	0.01
Middle English			
Base	type	token	type/token frequency
N	12	329	0.03
A	7	258	0.02
Early Modern English			
Base	type	token	type/token frequency
N	6	112	0.05
A	2	72	0.02

Table 4.72: *Morphological patterning of dōm/-dom in OE, ME and E*

In the following section, we will survey *-dom* in ModE to see what kind of status the element has today.

4.3.5 *-dom* in Modern English

In this section we will survey the status of *-dom* in ModE. So far we have seen that the free element has probably turned into a suffix but into one that does not seem to have much force building new formations. This is an assumption widely held in the twentieth century. Thus, we find the following statements on the status of the suffix (from Wentworth 1941: 280f):

> It is not easy to say when a recognized suffix is actually dead … Tolerably safe examples are -dom … -th … -some … Now and then a jocose formation in -dom is put forth, such as boredom … (G. L. Kittredge, Harper's Magazine, January 1903)

> […] if we take many of our oldest suffixes such as dom, ship, some, etc. we shall find as we approach more modern times, that they are more and more falling into disuse […] when an affix perishes it seems as if no effort can restore to it its old life […] Ness has also replaced head or hood in many words, and also dom; for the XIXth Century attempts to revive dom […] have not, with the exception of boredom, met with any permanent or popular success.
>
> (L. P. Smith, The English Language, 1912)

> -dom […] is to all intents and purposes now dead.
>
> (A. C. Baugh, A History of the English Language, 1935)

However, there are others assuming that the suffix is not dead at all:

> -dom is now a living suffix, freely employed […] The number of these derivatives has increased in later times.
>
> (New English Dictionary, 1897)

This quote implies that the suffix used to be less freely employed than it is today. It is further stated that derivations with the suffix have increased. Both statements are in line with the findings from the corpora. Further comments in favour of *-dom* being a living and active suffix are:

> This suffix probably owes something of its popularity since the outbreak of the present war, to the German -thum.
>
> (Louise Pound, Dialect Notes, 1918)

> [...] still active, that is to say, regarded as easily available for the coining of new compounds.
>
> (A. G. Kennedy, Current English, 1935)

In his article, Wentworth (1941) tries to show that in the twentieth century *-dom* is indeed a living suffix. He notes that in OE the suffix already appears building formations (such as the ones found in the corpus here). Further, he states that after 1500 these formations predominantly denoted religious and political concepts like *priestdom* or *princedom*. In the nineteenth century most of all the formations existing today were built, and many denote other concepts now. Wentworth notes

> It is noticeable that many of these words are not concerned with politics and religion, unlike those of earlier centuries. *Puzzledom* and *awaredom*, of the eighteenth century, and *motherdom* or *cuckoldom*, of the seventeenth, may have pointed the way to the extension of meaning that usually characterizes *-dom* in later derivatives. (Wentworth 1941: 286)

By investigating the BNC we will try to find further evidence for Wentworth's assumption that ModE *-dom* is a suffix productively building new words. The formations found in the BNC are given in Table 4.73, p. 118: By surveying the table with non-hapax formations we do not find much support for Wentworth's observations. First, *kingdom* and *freedom* are highly lexicalised and occur most of the time (they make up 12498 occurrences of the total of 15457). Like *-hood*, *-dom* also predominantly occurs with nominal bases denoting persons (exceptions are *adventuredom* and *bestsellerdom*). Unlike *-hood* a number of formations with adjectival bases occur, and crucially not only lexicalised ones like *freedom* but also non-lexicalised ones like *baggydom*[42]. The meanings we find are described by Plag:

> The native suffix -dom is semantically closely related to -hood and -ship, which express similar concepts. -dom attaches to nouns to form nominals which can be paraphrased as 'state of being X', as in apedom [...], or which refer to collective entities, such as professordom [...], or denote domains, realms or territories as in kingdom [...] (Plag 2003b: 88)

As discussed above, the different meanings can be explained diachronically with semantic layering synchronically leading to polysemy. But from a diachronic point of view it is an adding of meaning: in OE we predominantly find 'authority, office', in ME semantic meanings are added due to metonymic shifts like 'collectivity' or 'territory', and after the ME period a more general meaning 'state of being N' occurs. Thus, all meanings found today and regularly given in descriptions of suffixes are the reflex of the development of a suffix. Moreover, as long as we cannot find a general meaning 'state of being N' attributed to a large number of formations, the element in question is not an active suffix (and it does not have suffixal status). But as soon as we find formations like *puzzledom* or *awaredom* (and many

[42] Although it occurs more than once in the corpus, it is neither listed in the OED, Webster's or Longman's. This finding is problematic for a statistical analysis of productivity.

Formations with -dom in ModE							
	B	**T**	**ENE**		**B**	**T**	**ENE**
kingdom	7046	6481	+	indiedom	221	4	
freedom	22243	6017	+	megastardom	20	4	
wisdom	–	1570	+	thraldom	80	4	
boredom	800	585		superstardom	320	4	
Christendom	183	166	+	Afrikanerdom	70	4	
stardom	10072	132		coupledom	15221	3	
serfdom	5	124		princedom	4031	3	
martyrdom	464	120	+	unfreedom	26	3	
officialdom	15203	109		baggydom	259	2	
earldom	1495	85	+	bestsellerdom	81	2	
moledom	846	38		bishopdom	3864	2	
dukedom	2353	18		sheikdom	224	2	
fiefdom	120	9		street-wisdom	1564	2	
whoredom	433	7	+	value-freedom	36	2	
adventuredom	2065	6		vassaldom	234	2	
hippiedom	223	6		wrinklydom	23	2	
tsardom	285	5		subkingdom	7046	2	
unwisdom	1564	5	+				
Total						15457	

Table 4.73: *Formations with -dom in ModE*

others of that type) we have an indication that the meaning of the element has been generalised, and that the transparent connection between the free element *doom* and *-dom* in, e.g., *puzzledom* is no longer directly felt by the speaker.

More evidence for these assumptions can be gained if the use and invention of these formations by well-known authors is examined who start to build these formations on the spur of the moment. Wentworth names the nineteenth-century author Thomas Carlyle who created new formations with *-dom* more than any other author. Some of them are *duncedom*, *philosophedom*, *tinkerdom*, *rascaldom*. Other authors include Thackeray (*Turkeydom*, *doctordom*) or Dickens (*boredom*), and it is not only nominal bases that we find but also formations like *listendom* with a verbal base. With respect to the meaning of these formations Wentworth claims

> Many are rich in connotation of empire, of politic organisation, of dominion real or fancied. Some are daring, poetic, curious, whimsical. But such traits hardly disqualify the words as standard English, so broad is that concept. (Wentworth 1941: 290)

According to Wentworth about forty percent of all the derivatives investigated in his inquiry are not listed in one or more of the largest dictionaries (A New English Dictionary on Historical Principles[43], Webster's), a fact that also speaks in favour of its productivity at that time. In the following, we will see if we can support Wentworth's assumption with the findings from the BNC by investigating the hapaxes with *-dom* given in Table 4.74, p. 119. According to the criterion of productivity, in ModE *-dom* is clearly a suffix productively building new formations. 41 out of 56 hapaxes are not listed in dictionaries, and therefore the correlation assumed between neologisms and hapaxes can clearly be shown here. However, as

[43] This is the title of the original edition (1884-1928) of the OED

for *-hood* we find a number of prefixes like *anti-*, *post-*, *semi-*, *quasi-* and *pro-* that are attached to *-dom*-formations showing that other morphological processes have taken place after *-dom*-suffixation (*anti-boredom*, *pro-freedom*, *post-martyrdom*). Therefore, these formations are not neologisms in the sense that they indicate newly built *-dom*-suffixations and they are not taken into account calculating *P*. Further, 22 of these formations contain a nominal base denoting persons. The meanings found are 'authority of N', 'realm or rule of N', 'collectivity of N':

Formations with -dom in ModE (hapaxes)					**Formations with -dom in ModE (hapaxes)**				
	l/nl	**B**	**T**	**ENE**		l/nl	**B**	**T**	**ENE**
clubdom	nl	20217	1		Serbdom	nl	380	1	
computerdom	l	17304	1		frockdom	nl	332	1	
filmdom	l	14401	1		superpowerdom	nl	316	1	
semi-stardom	nl	10072	1		country-squiredom	nl	296	1	
liberaldom	nl	6477	1		slavdom	l	260	1	
pro-freedom	nl	6017	1		orcdom	nl	250	1	
sea-freedom	nl	6017	1		squatterdom	nl	193	1	
quasi-freedom	nl	6017	1		heathendom	l	145	1	+
torydom	nl	5457	1		incadom	nl	128	1	
Bowie-fandom	nl	5387	1		hagdom	nl	107	1	
labeldom	nl	4345	1		hooraydom	nl	99	1	
muscledom	nl	3866	1		interest-freedom	nl	99	1	
dollardom	nl	3700	1		birodom	nl	91	1	
rug-wisdom	nl	1564	1		post-yuppiedom	nl	83	1	
peasant-wisdom	nl	1564	1		yuppiedom	l	83	1	
villadom	l	1390	1		scruffdom	nl	81	1	
anti-boredom	nl	800	1		bumbledom	l	78	1	
sheriffdom	l	663	1		wimpdom	nl	77	1	
celebritydom	nl	658	1		faggotdom	nl	72	1	
hackdom	nl	652	1		slobdom	nl	68	1	
trampdom	l	623	1		magyardom	nl	51	1	
Anglo-Saxondom	l	613	1		great-powerdom	nl	7	1	
game-boredom	nl	585	1		pvv–freedom	nl	4	1	
post-martyrdom	nl	464	1		nashdom	nl	1	1	
self-martyrdom	nl	464	1		lichedom	nl	–	1	
Total								54	

Table 4.74: *Formations with -dom in ModE (Hapaxes)*

(203) *From 1237 until 1245 he seems to have acted as one of the stewards of the king's household, a post that he combined with the* ***sheriffdom*** *of Gloucestershire (1238-4) and more briefly with the justiciarship of the southern forests (1241-2) and the seneschalship of Gascony (1243).*

(204) *The British middle class is sounding unprecedentedly disloyal to* ***Torydom****.*

(205) *'Strange Free World' is a neon-lit switchback rider after too long in the grime of* ***squatterdom****.*

Note that although *sheriffdom* is a hapax in the corpus it is listed in the OED. Actually, this formation has first occurred in 1385 and has been well established. It denotes either the 'office of a sheriff' or the 'realm or rule of a sheriff'. In contrast, the (rather) recent formation *Torydom* only denotes the 'realm or rule of Torys', which is one of the metonymic shifts of *-dom*[44]. This also applies to *squatterdom* and the other recent formations with Noun + *-dom*. Apart from these formations, a number of formations (13 cases) show nominal bases denoting concrete and abstract entities:

(206) *Hollywood, said Hall, had already discovered people's interest in the rich and rags to riches was **filmdom's** bread and butter'.*

(207) *IT 'S NOW been three years since 'French Kiss' house-humped its steamy way into world **clubdom's** consciousness and catapulted Lil' Louis into the overnight celebrity which comes with sudden chart action.*

(208) *Clairmonte was a popular choice for the title first won by John Carl Grimek , America's 'Monarch of **Muscledom**' back in 1948, but his victory had been a close run thing.*

(209) *Is frustration a normal part of **computerdom**, when you have a shiny new program and no way to use it?*

The meaning all formations of that type have in common is 'realm of N', also sometimes described as 'world of N'. Again, this is a sense extension deriving from the salient meaning 'authority' of the once free element *-dom*. This observation is in line with Wentworth's finding that early formations concerned with politics and religion have paved the way for sense extensions that characterise ModE formations (see citation above). Concluding, we can say that as soon as *-dom* had suffixal status it could only build formations with meanings that are all sense extensions of the original salient meaning. The meaning 'authority/office of N' still occurs but only with lexicalised words. In chapter 4.2 the same was claimed for the suffix *-hood* and in chapter 4.4 we will pursue this argument further for *-ship*.

So far we have not answered the question of whether *-dom* is a suffix productively building new formations in ModE. By applying the statistical measures discussed (and taking into consideration what was said above about the hapaxes found) we gain the following values:

Frequencies and productivity for -dom (ModE)			
type	token	hapax	*P*
86	15454	38	0.002

Table 4.75: *Frequencies and productivity for -dom (ModE)*

The productivity of 0.002 shows that compared with other suffixes (e.g. *-able* and *-ize*, see comment above) in ModE *-dom* is an active suffix, productively building new formations with nominal, adjectival, and sometimes other bases. Compared to *-hood* (0.003), however, it is less productive. From what we have seen by going through the several stages of English by means of data from diachronic corpora is that *-dom* started out as a free suffix being modified by nouns and adjectives and that these syntactic phrases gradually developed into compounds. In ME and ENE we found few formations but most of them with high(er) frequencies implying that most of these formations are lexicalised to some degree. Only in

[44] Interestingly, the formation *toryship* only shows the meaning 'dignity, title of a Tory' (humorous) which is a metonymic shift from the salient meaning of *-ship*. For an explanation see next section.

the nineteenth century does *-dom* gain proper suffix status, evidence of which are many new formations with more than one base category and a general meaning 'state of being N'. The meanings gained during the development of the suffix coexist and lead to a semantic layering. In the following section we will deal with the last suffix examined in this book, *-ship*, and we will see that it behaves quite differently from *-dom*.

4.3.6 Conclusion

In this section, the development of *-dom* was investigated. Compared to the development of ModE *-hood* we could observe some differences: although in OE it also occurs as head noun with adjectival and nominal modifiers as well as head in compounds, it exhibits less newly built formations in the several subperiods implying that it has gained suffixal status (ME) but is not as productive as *-hood*. Most formations in ME and ENE have occurred in OE and must be analysed as compounds. However, in ModE it starts to build productive series of formations, and thus its suffixal status can clearly be seen at that period of time. So the micro-processes of this development can be found for both elements but at several stages of time. To complete the picture, in the next section we will deal with the development of ModE *-ship*.

4.4 The development of -ship

4.4.1 Introduction

In this section we will survey the development of the suffix *-ship* in the history of English. Again, we will use the criteria discussed in chapter 2 (and 3) to define the status of the element at different points in time. In this way, we will be able to compare the development of *-ship* with the development of *-hood* and *-dom*. In the following section, we will start out with the situation found in OE.

4.4.2 *scipe* in Old English

Before we will discuss the OE data, let's take a look at the entry for the suffix *-ship* in the OED:

> Forms: 1 *-skiepe*, *-scipe*, *-scype*, Anglian *-scip*, *-sciop*, 2 *-scep*, 3 *-sip(e*, 3-4 *-scip(e*, 3-5 *-schipe*, 4 *-schupe*, 4-5 *-schippe*, *-shipe*, *-schyp*, *-schepe*, *-shep(e*, *-chipe*, *-chepe*, 4-6 *-schip*, *-shyp*, *-shippe*, 5 *-schuppe*, *-schepe*, *-chyp*, *-chep*, 5-6 *-shyppe*, 5-7 *-shipp*, 4- *-ship*. [In OE. **-sciepe*, *-skiepe* (rare), *-scipe*, *-scype*, Anglian *-scip*, (occas. *-sciop*) str. masc. = OFris. *-skipi*, *-skip*, *-schip* (WFris. *-skip*, *-schip*, NFris. *-skep*, *-skap*), OS. *-scepi*, *-scipi*, MLG., MDu. *-sc(h)ip*, *-sc(h)êpe*, *-sc(h)eep*, *-sc(h)êp*, WFlem. *-schip*, *-schepe*:-OTeut. **skapi-z*, f. *skap-* to create, ordain, appoint (see *shape* v.)]. The V of the stem-syllable of OE. *scipe* and the corresponding continental forms is apparently due to secondary influence of the umlaut, the change being probably favoured by the lack of stress. The related **skapo-z* masc., **skapo*

> fem., and **skapti-z* shaft n.1, meaning 'creation, creature, constitution, condition', were used in Germanic as the second element of compounds and as such assumed the function and meaning of a suffix equivalent to **skapi-z*; these forms are represented by OS. *-skap* (MDu., Du. *-schap*), OHG. *-scaf* fem., later *-scaft* (MHG., G. *-schaft*), ON. *-skapr* (Da. *-skab*, Sw. *-skap*); the alleged OE. *landsceap* is an error due to misreading. The abnormal forms of the suffix in Sc. *hussyskap*, *-skep*, *-skip* (see *housewifeship*) may have a LG. or Du. origin.] In certain uses the suffix lends itself more or less freely to the formation of nonce-words;
>
> 1. Added to adjs. and pa. pples. to denote the state or condition of being so-and-so. Such compounds were numerous in OE., and many survived (or were re-coined) in ME., but few have a history extending beyond the 15th century; e.g., OE. *ārodscipe* 'briskness', *dolscipe* 'folly', *druncenscipe* 'drunkenship', *drunkship* (ME.), *glædscipe* 'gladship', *gōdscipe* 'goodship', *lāþscipe* 'hardship', *prūtscipe* 'pride', *shendshipe* (ME.), *snelscipe* 'boldness', *wildship* (ME.), *wōdscipe* 'madness'. The only survivals of this formation now in common use are *hardship* (first in the *Ancrene Riwle*), and *worship* (OE. *weorðscipe*).
>
> 2. Added to ns. to denote the state or condition of being what is expressed by the n., e.g., OE. *fēondscipe* 'hostility', *frēondscipe* 'friendship', *þegnscipe* 'thaneship'; *authorship, fellowship, knightship, partnership, sonship, suretyship*.

In the first part of the entry, relevant information is given with respect to the status of *-scipe* in OE. First, we see that a wealth of forms exists for this element, a situation which is neither found for *hād* nor *dōm*. It is noted that the quality of the stem vowel of OE *-scipe* is due to a sound change that could probably only happen because the vowel did not bear stress. Moreover, different phonological shapes of this element occur: the verb it stems from and the related noun. According to the OED the ModE suffix *-ship* derives from the OTeut. verbal form **skapi-z* with the meanings 'to create, ordain, appoint' (verbal). The related nominal forms with the meanings 'creation, creature, constitution, condition' were used in Germanic as the second element of compounds and gradually developed into suffixes equivalent to the verbal **skapi-z*. These nominal forms have equivalents in the German *-schaft* in form and meaning (and the other cognate suffixes, e.g., Dutch *skap*). This state of affairs explains why in OE three forms occur: the noun *(ge)sceaft* with the meaning 'creation, origin, creature', the deverbal *(ge)sceap* derived from the past participle *sceapen* from the verb *scieppan* with the meaning 'form, created being, creature' and the noun *-scipe* with the meaning 'state, condition, dignity, office'[45]. All three elements build compounds in OE. Adjectives and participles could serve as first elements, a property that did not survive. This is in line with Marchand's observation that in OE and ME adjectives and participial adjectives could also serve as bases for *-ship*-formations but these patterns were lost (the only form survived is *hardship*).

As concerns the semantics of formations with *-ship* in ModE Marchand (1969) notes that with personal nouns the suffix conveys the meaning 'state, condition of X, being X', it can, however, depending on the base also denote an office, dignity or rank of X (*majorship*) where the connotation of emoluments to the position can be included (*scholarship*). Moreover,

[45] According to Voyles (1992: 277) in Germanic there are two suffixal elements:**skaft* with nominal and verbal bases building feminine nouns; this is probably the origin of OE *(ge)sceaft*; and **skap/*skip* with adjectival and nominal bases. It builds nouns and is probably the origin of OE *-scipe*. Unfortunately, it is neither said if the two elements have the same root nor what the meaning of the derivatives is.

Marchand observes that preceded by a possessive *-ship*-formations like *ladyship*, *lordship* and *worship* are used as respectful forms of address. These forms serve to coin analogies like *clownship* or *monkeyship* that are used as mock titles. When the suffix is attached to nouns denoting a professional agent the derivation denotes 'skill of N' as in *workmanship*. Marchand notes that this type of derivation occurs only in ModE and seems to be the most productive pattern. A pattern that occurred in OE is the one denoting a community as in *folcscipe* 'family' or *tūnscipe* 'inhabitants of a town'. In these cases we find nominal bases, but only few words from that group have survived (see also chapter 6).

What we can conclude from the OED entry and other comments on this suffix is that in OE three elements occur, *(ge)sceaft*, *(ge)sceap* and *-scipe* with similar meanings that took part in compounding as second elements. The question then is why today we do not find the OE *(ge)sceaft* as bound form as in ModG *schaft*, and why it was possible to have all three forms coexisting in OE. Since this situation is quite complex (and confusing) we need to look at the properties of each of these forms to get a clearer picture. It might well be the case that the denominal form *(ge)sceaft* behaves differently from the deverbal forms *(ge)sceap* and *-scipe* with respect to the type of bases that are allowed.

Apart from the several forms discussed above, in the literature contradictory information concerning the status of *-scipe* in OE is given. To shed light on this matter, we will first discuss the criteria of syntactic phrases to see if the element still shows properties of a free element. Thus, formal properties like morphological agreement between *-scipe* and its modifiers and a phrasal stress pattern (main stress on head) will be surveyed. Moreover, we will examine whether syntactic constructions with the element in question as verbal head occur (recall Messing's criterion). With respect to the semantic properties we expect to find that the syntactic entity has a non-referential interpretation and that it is semantically compositional. In the following, we will discuss these criteria for the three forms found.

In OE the free form *(ge)sceaft* occurs with the meaning 'created being, origin, creation':

(210) God gesceop **his** **gesceafta** on syx dagum ealle, …
God created his creatures on six days all

(ÆHom_2:220.354)

(211) Forþām sint **ðas** **sceafta** þus gesceapene þæt ðā unstyriendan hī ne
for that are the creatures thus created that the unmovables they NEG
āhebben ofer þā styrienda …
raise over the movables

(Bo:41.146.10.2918)

Further, *(ge)sceaft* occurs with a prenominal genitival modifier:

(212) ac ealle sint emnæþele, gif gē willað þone **fruman** **sceaft** geþencan,
but all are equally-noble if we want the founder's creation consider

(Bo:30.69.26.1294)

(213)þurh þā oferhygde of heofonum gehrēas þæt wundorlice **engla** **gesceaft**.
through the pride of heaven fell the wonderful angels' creature

(HomS_11.2_[ScraggVerc_3]:23.406)

(214) On ðæs **līchoman gesceafte** wē underfengon ealle ða ðēnunga ðe wē nū
in the body's creation we received all the service that we now
ðīowiað & wyrceað.
are-subject-to and perform

(CP:34.233.9.1528)

In all the examples that exhibit a genitival modifier we do not find a case that clearly shows only a referential interpretation (e.g., in (214) *the body's creation* could either refer to a specific or non-specific body). Clear referential interpretations are only found (unsurprisingly) with proper nouns as genitival noun:

(215) Sēo sunne þe onliht ealne mideard is **Godes gesceaft**, …
the sun that alights all earth is God's creation

(ÆLS_[Christmas]:73.60)

Complex forms where *sceaft* occurs as the second element in compounds are also found[46]:

(216) Cwæð hē: Sing mē **frumsceaft**.
said he recite me first-creation

(Bede_4:25.344.2.3450)

(217) … forðæm hī ælce gēare weorðað tō **edsceafte**.
for-that they each year become to new-creature

(Bo:34.92.13.1765)

(218) Hū man sceal þā wætan & þā **wonsceaftan** ūtan lācnian mid āfrum
How man shall the humours and the miseries out cure with bitter
sealfum, …
ointment

(Lch_II_[2]:38.1.1.2888)

(219)þæt fȳr is yfemest ofer ellum þissum **woruldgesceaftum**.
the fire is highest over all these world-creatures

(Bo:33.80.10.1511)

(220) & swā þæt wæter wæs standende & belēac þā duru þære cyrican,
and when the water was standing and covered the doors of the church
efne swylce sēo **wætergesceaft** wǣre onwænded in fæstes wāges
even such the nature-of-water was changed in firm wall's
staðolfæstnysse.
stability

(GDPref_and_3_[C]:19.220.13.2985)

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[46] Carr (1939) claims that compounds with *-(ge)sceaft* are borrowings in OE from Low German because this element is rare and occurs only in a number of compounds like *metodsceaft* or *wansceaft*. However, as we see here we also find syntactic phrases with *(ge)sceaft* as head noun and therefore it does not seem to be plausible to say that compounds with these elements are all borrowed.

The deverbal *(ge)sceap* behaves similarly: it occurs as free element with the meaning 'form, nature, condition, created being, creature' and it shows agreement with preceding determiners[47]:

(221) Ne mōt nān man his lima ne his **gesceapu** forceorfan.
Not may no man his limbs nor his shape cut-through
(ÆHom_20:61.2954)

(222) On þam æfteran dæge hē gesceop **þā gesceapu** ðe þisne heofon healdað.
on the next day he created the creatures who this heaven holds.
(Sol_I:5.3.14)

Concerning the semantics of *(ge)sceap* only few cases are found where we can assume a referential interpretation[48]:

(223) … þā ān þāra nunnena, þe wæs swȳþe fægru æfter þæs **līchaman**
then one (of)the nuns who was very beautiful after the body's
gesceape, wæs þā fǽrlīce mid fēfre geswenced …
form was then suddenly with fever tormented
"Then one of the nuns who was very diseased according to her body's disposition then was suddenly tormented with fever"
(GD_1_[C]:4.28.20.300)

According to the context a referential reading of *līchaman* must be assumed since it is the disposition of a specific body (the nun's body). This seems also to apply to the following example:

(224) Song hē ǽrest be **middangeardes gesceape** & bi fruman
sang he first about earth's creatures and about beginning
moncynnes …
mankind's
"He sang first about the creatures of the earth and about the beginning of mankind"
(Bede_4:25.346.5.3480)

Further, *(ge)sceape* occurs as the second part of compounds:

(225) … hū þā wīsan sind wundorlīce, fæger **fyrngesceap**, ymb þæs fugles
how the wise are wonderful fair decree-of-old about the bird's
gebyrd.
offspring
(Phoen, 355)

(226) Ðǽr bīþ oðȳwed egsa māra þonne from **frumgesceape** gefrægen wurde ǽfre
There is showed fear more than from first-creation reported was ever
on eorðan.
on earth
(ChristA,B,C, 838)

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[47] In the YCOE, I found only few cases of *(ge)sceap* preceded by modifiers and determiners. Therefore, below I also cite some examples from the DOE corpus.

[48] Phrases with *(ge)sceap* as nominal head modified by an adjective or a noun are very sparse; for an explanation see below.

(227) … wīcum wunian oð woruldende; heold on **hēahgesceap**.
habitation inhabit until world's end controlled by fate

(Beo, 3079)

In these cases, a non-referential interpretation of the first element seems most plausible.

Finally, *scipe* occurs as free morpheme. If we take a look at the entry for *scipe* in BT two meanings are given: I. 'pay, stipend', II. 'state, condition, dignity, office'. Clark Hall (1996: 295) gives also two meanings: I. 'pay, wage', 'position, rank', II. 'fate'. If the element is still a free form in OE we would expect to find this meaning in syntactic phrases where *scipe* can be modified by a noun in the genitive or an adjective. The data is very sparse, only one instance of *scipe* preceded by a possessive occurs:[49]:

(228) Hæbbe ic mīnes **cynescipes** gerihta swā mīn fæder hæfde, and mīne
have I my kingly state's rights as my father had and my
þegnas hæbben heora **scipe**.
thanes have their position

(BT, L.Edg. ii. 3; Th. i. 266, 15-18)

Interestingly, if we consult Thorpe's translation of this extract from the *Laws of Edgar* we find the following: ".. that I may have my rights of royalty as my father had, and that my thanes have their dignity". According to Thorpe's translation, *scipe* in this context has to be analysed as a free morpheme because it is translated as 'dignity' whereas *cynescipes* is translated as 'rights of royalty'. If it were e.g. an elliptic construction, it clearly would have to be translated with the same meaning (apart from the fact that elliptical constructions of that type do not exists for compounds; in **my love letters and my letters.* the second instance of *letters* cannot be interpreted as 'love letters'.).

Since the data is too sparse, the syntactic criterion postulated cannot be assumed for *scipe* but for *(ge)sceaft* and *(ge)sceap* :

(229) Syntactic Criterion I: if elements of the type [Noun/Adjective$_{\text{agreement}}$ + *(ge)sceaft/ (ge)sceap*$_{\text{agreement}}$] show agreement between the head noun and its modifier(s) they must be analysed as phrases.

With respect to the first semantic criterion we can state at least for *(ge)sceaft* and *(ge)sceap* that it holds for the cases that occur, even if they are few. Unfortunately, this cannot be said for *scipe*, again due to the lack of data.

(230) Semantic Criterion I: syntactic phrases of the type [Noun$_{\text{agreement}}$ + *(ge)sceaft/ (ge)sceap*$_{\text{agreement}}$] are semantically compositional and show a referential reading. Compounds of the type [Noun + *(ge)sceaft/(ge)sceap*] show a non-referential reading.

In the DOE corpus there are some glosses showing that concepts in the Latin original are translated with a native element like *-scipe* or with a compound like *snoterscipe* 'ratiocination, reasonableness':

(231) *Ratiocinatio est oratio quae id declarat quo questio comprobatur* **snoterscipe** | hrihtlæcing | **scipes** (AldV 1 (Goossens), 3110)

[49] Neither in the YCOE nor in the DOE corpus could I find instances of free *scipe* as phrasal head with the meaning 'state, condition, dignity, office'. Therefore, the example given is from BT).

(232) *lenocinii* hæmedrimes | **scipes** seductionis (AldV 1 (Goossens), 4930)

(233) *Stipendium* **scipe** | bigleofa (AntGl 2 (Kindschi), 345)

If we compare the frequency of occurrence of the three elements we find the following pattern, given in Table 4.76:

(ge)sceaft, (ge)sceap, scipe as free elements in OE			
	(ge)sceaft	(ge)sceap	scipe
Modified by Adj.	93	0	0
Modified by N	24	3	0
Total	117	0	0

Table 4.76: *(ge)sceaft, (ge)sceap, scipe as free elements in OE (findings from the YCOE*

So far we have seen that in OE three elements with the same PG root exist and that *(ge)sceaft* and *(ge)sceap* occur as free morphemes as well as part of morphological complexes. *Scipe*, however, does not occur at all as free element in the corpus (only one example from BT) which leads to the assumption that in OE it no longer has this status. If we recall the criteria to define the status of elements like *(ge)sceaft*, *(ge)sceap* and *scipe* next we should look for syntactic constructions with the element in question as verbal head, i.e., for constructions with the verb *scieppan* (strong, class VI) meaning 'to create, form'. In the corpus, there are only few occurrences of this verb (14 cases) and they are found in two contexts: 1) in the context where God is described as the creator of all:

(234) Hē ærest **sceop** eorðan bearnum heofon tō hrōfe hālig **scyppend**;
he first created earth's children heaven to roof holy creator
(Bede_4:25.344.10.3454)

(235) Hwæt, ðā binnan six dagum, ðe þe sōðæ God þā gesceafte
behold, then within six days, where the righteous God the creatures
isceop, þe hē **scyppen** wolde,
created, who he create wanted
(ÆLet_4_[SigeweardB]:67.6)

and 2) in the context where somebody is given a name; the fixed expression 'scieppan naman' occurs:

(236) … þæt rīce men **sceopon** heora bearnum **naman** be him sylfum …
that rich men gave their children names by them selves
(ÆCHom_I,_32:452.36.6380)

(237) & hē him **scop** Petrum tō **name**.
and he him gave Petrus as name
(ChronE_[Plummer]:688.1.614)

Since the verb appears only sparsely and occurs only in fixed expressions it seems that it was no longer productive at that time. Moreover, as shown above the free morpheme *scipe* itself does not occur at all. According to Messing's criterion this finding is evidence for the suffixal status of *-scipe*. This assumption is corroborated if the occurrence of *-scipe* as first element

in complex words is compared with *(ge)sceaft* and *(ge)sceap*: for *(ge)sceaft* we do not find morphological complexes including this element, we only find the homonym *sceaft* meaning 'spear':

(238) *sceaft-lō* 'spear-strap'
sceaftmund 'span'
sceaftriht 'in a straight line'

For *(ge)sceap* (and *(ge)sceapen*) the following morphological complexes are listed:

(239) *gesceapennys* 'creation, formation'
gesceapenlīce 'properly'
gesceapwhīl 'the time appointed by fate for dying'

The first two examples show *gesceapen* as the base suffixed with *-nes* and *-līce*. The third example shows the noun *gesceap* as first element. *Scipe* cannot be found as first element in complex words, which might be a further indication for the suffixal status of *scip*.

As concerns the formal properties, so far we have not dealt with the phrasal stress pattern of syntactic phrases with *scipe* as head. For the free elements *hād* and *dōm* we could use examples found in poetry but since *scipe* is so rare this is not possible. Still, we can observe a number of prosodic properties of *scipe*. First, in OE *scipe* is disyllabic and, according to Germanic stress rules, primary stress is on the first syllable. Second, we see that the second syllable ends in an *-e* which would have to be pronounced as schwa ([ə]) and thus is an unstressed syllable. If we take another look at the example where it occurs as free element, repeated here as (240), we would have to conclude that the properties assumed above are given, i.e., that *scipe* in this example is stressed on the first syllable: *scípe*.

(240) Hæbbe ic mīnes **cynescipes** gerihta swā mīn fæder hæfde, and mīne
have I my kingly state's rights as my father had and my
þegnas hæbben heora **scípe**.
thanes have their position

(BT, L.Edg. ii. 3; Th. i. 266, 15-18)

If this finding is compared with the findings from OE poetry the following contrast can be observed: recalling what we have said above about the main characteristics of OE poetry we find alliteration. Alliteration always occurs on stressed syllables, and the third stressed syllable in the second verse must always alliterate with the first or second stressed syllable in the first verse. If the examples from *Beowulf* where *scipe* occurs as second element of complex words is examined under these aspects its status will become clearer:

(241) *þȳ ic **H**ēaðobeardna/*
***h**yldo ne telge,//*
***d**ryhtsibbe **d**ǣl/ **D**ēnum unfǣcne,//*
***f**rēondscipe **f**æstne.* (beowul,64.2067.1682)

(242) ***e**ahtodan **e**orlscipe/*
*ond his **e**llenweorc.* (beowul,98.3169.2535)

Alliteration falls on the elements marked in bold indicating that the syllables affected by alliteration are all stressed. Since *frēond* in *frēondscipe* and *eorl* in *eorlscipe* bear main

stress, the element *scipe* can only bear secondary stress. It seems that these complex words behave like compounds with non-phrasal stress. Thus, here we have a clear prosodic contrast between the free element with primary stress on the first syllable and secondary or no stress on that same element if it occurs as second element of a complex word. The question is how we can define that these complex words are not derivations. We will come back to this question in the next section. For now, we will conclude that the examples from poetry with alliteration show that in OE *scipe* occurs as second part of compounds and prosodically behaves accordingly (see also below).

In the prose texts occurrences of *-scipe* as second element of complex words are found, and actually their occurrence is very frequent. Tables 4.77 and 4.78 (p. 130) show the pattern Noun + *-scipe* and the pattern Adjective + *-scipe*. In all cases presented in these tables, the first element no longer agrees with the second element, i.e., morphological agreement no longer occurs on the first elements.

Formations with Noun + -scipe in OE			
	M	**B**	**T**
weorðscipe	‘worth-state’	45	150
sinscipe	‘everlasting-state’	–	59
ðēodscipe	‘people-state’	376	56
frēondscipe	‘friend-state’	272	43
lēodscipe	‘nation-state’	161	42
(ge)fērscipe	‘fellow-state’	350	37
gebēorscipe	‘guest-state’	31	37
fīendscipe	‘enemy-state’	358	18
hlāfordscipe	‘lord-state’	751	11
(ge)ðoftscipe	‘comrade-state’	11	8
ðegnscipe	‘servant-state’	440	7
ealdorscipe	‘elder-state’	393	7
cynescipe	‘king-state’	3955	6
unweorðscipe	‘unworth-state’	46	2
gildscipe	‘gild-state’	12	2
woruldweorðscipe	‘worldly-worth-state’	1060	2
hēowscipe	‘family-state’	20	1
(ge)brōðorscipe	‘brother-state’	1306	1
gebyrdscipe	‘child-bearing-state’	47	1
gerestscipe	‘resting-place-state’	2	1
ealdordōmscipe	‘alderman’	62	1
gesīðscipe	‘fellow-state’	67	1
gewittscipe	‘conscience-state’	40	1
tūnscipe	‘town-state’	10	1
woruldscipe	‘world-state’	1060	1
Total			535

Table 4.77: *Formations with Noun + -scipe in OE*

Therefore, we can state the second syntactic criterion:

Formations with Adjective + -scipe in OE			
	M	**B**	**T**
hǣðenscipe	'heathen-state'	163	40
wærscipe	'cunning-state'	22	25
framscipe	'bold-state'	2843	3
hwætscipe	'quick-state'	28	3
glēawscipe	'wise-state'	25	3
gēapscipe	'cunning-state'	3	2
holdscipe	'loyal-state'	53	2
gemǣnscipe	'common-state'	113	2
uncāfscipe	'sloth-state'	–	2
stuntscipe	'foolish-state'	44	1
dolscipe	'foolish-state'	4	1
nāhtscipe	'worthless-state'	310	1
ārodscipe	'quick-state'	4	1
cāfscipe	'bold-state'	4	1
snellscipe	'bold-state'	1	1
unārodscipe	'cowardly-state'	–	1
unwærscipe	'careless-state'	30	1
ðwēorscipe	'perverse-state'	19	1
gālscipe	'wicked-state'	6	1
geswǣsscipe	'intimate-state'	15	1
hēamolscipe	'miserly-state'	1	1
rēðscipe	'fierce-state'	154	1
Total			57

Table 4.78: *Formations with Adjective + -scipe in OE*

(243) Syntactic Criterion II: if elements of the type [N/Adjective + *scipe*] do not show agreement between the head noun and its modifier(s) they must be analysed as word-formations (compounds or derivations).

Table 4.79 presents the morphological patterning of *-scipe* in OE: What we see from the table is that formations with *-scipe* of the type Noun + *scipe* have a much higher token frequency than those of the type Adjective + *-scipe*. However, when we take a look at the type/token frequency of both patterns we see that for the pattern Adjective + *-scipe* it is much higher than that for the Noun + *-scipe* pattern, i.e., a low correlation of types and tokens indicate that many of the types are not very frequent. Below, we will survey the hapax legomena of both patterns which will lead us to further conclusions concerning the status of *-scipe*.

Morphological patterning of -scipe in OE			
Base	type	token	type/token frequency
N	24	535	0.04
A	22	56	0.40

Table 4.79: *Morphological patterning of -scipe in OE*

To summarise, we have seen that the two cognate elements *(ge)sceaft*, *(ge)sceap* occur as free elements modified by nouns and adjectives as well as first element in complex words. *Scipe* is the exception, though, because it occurs not at all as free element in the corpus and

therefore some of the criteria proposed cannot be applied. However, *-scipe* also occurs quite frequently as part of complex words and we can say that the second criterion is borne out. In the following, we will try to define whether *scipe* in these cases is still a free element (as part of a compound) or already has the status of a suffix (in a derivation).

4.4.2.1 Is -ship a suffix in OE?

A comparison of the findings for OE *hād*, *dōm* and *scipe* reveals that at least the following three criteria help us to decide whether in OE these elements have suffixal status or not:

1. Does it occur as free morpheme?
2. Does the verbal form occur in syntactic constructions? (Are there fixed expressions?)
3. Do we find the element as first part of complex words (compounds)?

Table 4.80 compares the findings for the three elements with respect to these criteria.

Comparison of hād, dōm, scipe as free elements in OE			
	hād	dōm	scipe
Free morpheme	72	136	0
Syntactic construction with verb	14	215	11
Fixed expressions	1	16	6
	hādian wuduwan 'to take the veil'	*deman dōm* 'to judge'	*scyppan naman* 'to give a name to sb.'
1st element in complex words (compounds)	9	10	0

Table 4.80: *Comparison of hād, dōm, scipe as free elements in OE*

Hād and to a higher degree *dōm* occur as free elements. Both occur in syntactic constructions with the verbs *hādian* and *deman* but a contrast between the two can be observed since *dōm* shows the construction much more frequently than *hād*. We also find both nominal elements in first position in complex words, an indication of their status as free morphemes. Here both are equally frequent. As concerns all three criteria, *scipe* behaves differently: in the corpus no instances of *scipe* as free morpheme occur, it shows some syntactic constructions with *scyppan* (similar to the frequencies for *hādian*), and more than half of these constructions are fixed expressions; moreover, it cannot be found as first element in complex words. From what we have said about these criteria it becomes clear that *scipe* behaves like a suffix. The question is how it can be proved that instances with *-scipe* presented in Tables 4.77 and 4.78 are instances of derivatives.

The criterion of form does not seem to help here, because a formation like *weorðscipe* could either be a compound or a derivation. Orthography does also not help because in English there is no clear rule how to write compounds. Thus, we need to see whether the criterion of meaning can help us here (see also 4.1, chapter 2). It was shown in chapter 2 that Plag and others use this criterion to determine the status of elements like e.g. *-free* in *error-free* (and it was also shown that the examples with *-wise* and *-less* were flawed). As long as

there are no significant semantic differences between the two usages of the elements, e.g., between *-free* and *free* the bound and the free version are the same lexical item. This implies that *error-free* are compounds. But as soon as we do find significant semantic differences between the two usages we must assume that the former is a free form and the latter is a bound form with a meaning different from the free form. In the following, we will apply these two criteria to the morphological complexes with *-scipe* from the two tables above.

First, we apply the first criterion and compare the meaning of the noun *scipe* as free element with the meaning of the noun *-scipe* as bound element. Since we have just one example for *scipe* as free element this seems to be a problematic undertaking. The one example shows that *-scipe* as part of *cynescipes* has a meaning different from the free form *scipe*, although they are similar:

(244) Hæbbe ic mīnes **cynescipes** gerihta swā mīn fæder hæfde, and mīne
have I my kingly state's rights as my father had and my
þegnas hæbben heora **scipe**.
thanes have their position

(BT, L.Edg. ii. 3; Th. i. 266, 15-18)

In his paper (1917a), Messing notes that a necessary semantic property for nouns to become suffixes might be their being nomen actionis[50]. He cites Paul (1995: § 256): "Und es ist wieder die Bezeichnung der dauernden, wiederholten Tätigkeit, die zum Verlust des Charakters eines nomen actionis führt. Es entwickelt sich daraus die Bezeichnung eines bleibenden Zustandes; von hier aus ist dann auch eine Weiterentwicklung zu Dingbezeichnungen möglich, …". Following Paul, for Messing the denotation of an ongoing, repeated action leads to the loss of the properties of a nomen actionis. The result is the denotation of a state that could further develop into the denotation of an object (result). Messing illustrates this development with the Old High German (OHG) *scaf*:

(245) *scaf* = 'Schöpfung' als körperliche Tätigkeit; 'Schöpfung' als Resultatsbezeichnung, wie wir heute z. B. ein Denkmal eine Schöpfung nennen, Geschöpf, Gestalt, Form, Beschaffenheit; 'Schöpfung' als geistige Tätigkeit, Anordnung, Befehl; Schicksalswille, Geschick, u. s. w.

Messing further notes that the *-t* ending of OHG *scaft* and OE *sceaft*, which has to be analysed as the suffix of the preterite participle, clearly marks the passive use of the nomen actionis (created entity, creation). With respect to the semantics of this element he notes that due to its use in different contexts it had different meanings in OHG implying that as nomen actionis it included several different types of action. If we take into consideration syntactic constructions of the verb *schaffen* ('create') and a noun being perceived as syntactic and semantic unit, then it seems to be likely that nominalisations of these constructions could be built quite easily. Messing illustrates this with the OHG *wini-scaf*, the OE equivalent is *wine-scipe* (*wine* = 'friend'). For this complex word he assumes the basic meaning 'Freundschaffung' (the making of friends) and the syntactic construction 'sich einen (zum) Freund machen' (to make friends); both complex word and syntactic construction are attested with the meanings assumed by Messing. The simplex *scaf* as well as the complex word *wini-scaf* denote the result of this activity, i.e., the deliberately created state of being friends. In summary, *wini-scaf*

[50] For him a noun of that type is one that is derived from a verb; it denotes a process or an ongoing action.

denotes a) the activity during which one makes friends, b) the state of being friends, c) the deliberately created alliance.

According to Messing, the development assumed for *scaf* also applies to OE *scipe* and complex words that show this element as second part as in *wine-scipe*. In BT we find the following entry:

(246) winescipe, m. Friendship, winescipe *collegio*
(the passage is: Inseparabili angelicae sodalitatis collegio perfrui, Ald. 15; from BT)

In the DOE, three entries are found, two glosses and one clause containing *winescipe*:

(247) Collegio *winescipe*. ClGl 1 (Stryker), 1195

(248) Lǣst ealle well wǣre ond **winescype**, word þā wit sprǣcon, lēofast manna.
least all well were and friendship words then we-two speake dearest men's
(GuthA,B, 1171)

Since the first part of the clause contains a copulative construction (*to be well*) coordinated with the conjunction *and*, it seems that a reading where *-scipe* functions as an adjectival participial 'created friends', i.e., the result of making friends, is a plausible interpretation.

If we recall the entry for *-scipe* in BT with the two meanings I. 'pay, stipend', II. 'state, condition, dignity, office' and Clark Hall's (1996: 295) with the two meanings I. 'pay, wage', 'position, rank', II. 'fate' we would expect to find these meanings in morphological complexes with the element, provided that it was still analysed as a free element by speakers at that time (note that a state results from an activity whereby a state is created). This means that the meaning of *weorðscipe* can be interpreted as 'state, position, rank of worth' etc. Since this is the most frequent word in the table (150) we will have a closer look at the word under this aspect[51]. The examples found have indeed the meaning 'position, rank of worth' (that could be paraphrased with 'honour'), which is also in line with Messing's assumptions (see above).

(249) & be þām fīf gesǣlðum: þæt is wela & ānweald & **weorðscipe** & foremǣrnes & willa.
and by the five fortunes: that is prosperity and power and worth-state and fame and determination
(BoHead:33.41)

(250) and hine swylcne on gōdre drohtnunge gegearwige, þæt hē sȳ wyrðe swā micles **weorðscipes**.
and him so on good condition prepared that he be worth so great worth-states.
(BenR:63.115.23.1146)

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[51] Neither Marchand (1969) nor Dalton-Puffer (1996) explain why they list this formation under the type Adjective + *-scipe*. As concerns the form *weorð*, it could either be noun or adjective. Thus, it could either mean 'rank of worth' or 'quality of being worthy'. It is shown here that the meaning of *weorðscipe* in the given examples could well be defined as the former. Moreover, if we consider the table we see a pattern that shows that the most frequent forms in OE are those with a nominal base. That is why I analyse *weorðscipe* as being of the type Noun + *-scipe*.

Example (251) illustrates that the event reading (the activity during which one shows honour to somebody) also occurs, marked by the contiguity of *weorðscype* and *underfeng*.

(251) and hī man wið **weorðscype** underfeng.
and they one with worth-state received

(ChronD_[Classen-Harm]:785.5.312)

In their entry for *weorðscipe*, BT give (i.a.) the following two meanings with examples and the Latin sources that support this assumption:
I. an honour, a dignity, an honourable office or position (note that in this case we even have a verb):

(252) *Swelce wræccan woldon underfōn ðone **weorðscipe** and ēac ðā byrðenne*
infirmus quisque ut honoris (plebium ducatus) onus percipial anhelat

(BT, Past. 7; Swt. 51,23)

II. cause of an object being honoured or honourable

(253) *Hit gewearð ðæt ðām wīsan men cōm tō lofe and tō **wyrðscype** ðæt sē unrihtwīsa cyning him teohhōde tō wite*
ita cruciatus, quos putabat tyrannus materiam crudelitatis, vir sapiens fecit esse virtutis

(BT, Bt. 16,2;Fox 52, 26)

In chapter 4.2 it was shown that in OE the *-ung* nominalisation *hadung* occurred which could have an event reading whereas *hād* could not have this reading. For *dōm* we could not find the same situation, i.e., the element itself could have an event reading. As concerns *scipe* (and the related *(ge)sceaft/(ge)sceap*) there is no *-ung*-nominalisation found (for either of them) and from what we have just discussed we can conclude that this is because *scipe* itself could have an event reading.

If we examine the other formations with the highest token frequency of occurrence in the table – *sinscipe* (59), *ðēodscipe* (56), *frēondscipe* (43), *lēodscipe* (42), *hæðenscipe* (40), *gefērscipe* (37), *gebēorscipe* (37) – the following meanings can be found:

sinscipe = everlasting state, marriage (*sin* prefix with the meaning 'everlasting')

(254) Hū miht ðū þām ælmihtigan his brȳde beniman. and ðīnum
how might thou the almighty his bride bereave and thine
sinscipe geðēodan?
everlasting-state engage-in

(ÆCHom_II,_37:277.163.6241)

ðēodscipe = nation, people (further meaning teaching, knowledge; *ðēod* = nation, people, language)

(255) þā hēt sē cyng ābannan ūt ealne **ðēodscipe** of Westseaxum.
then commanded the king summon out entire people-state of West-Saxon
& of Myrcean.
and of Mercia

(ChronE_[Plummer]:1006.7.1682)

(256) & Scottas lǣrdon geonge & ealde on reogollicne **þēodscipe**, forþon
and Scots taught young and old in canonical knowledge-state because
þe þæt munecas wǣron, þā þe hider coman tō lǣranne.
those the monks were who to-this-place came to teach
(Bede_3:2.158.28.1535)

frēondscipe = friendship (*frēond* = friend; same as *winescipe*, see above)

(257) and ðǣr frið and **frēondscipe** heom betwēonan gefæstnodan,
and there peace and friend-state them between concluded
(ChronC_[Rositzke]:1055.21.2038)

lēodscipe = nation (*lēode* = man, people)

(258) þā cōm him tō sum rīce mann of þām **lēodscipe** þe is Syria
then came him to some powerful man of the nation-state that is Syria
gehāten.
called
(ÆCHom_I,_27:408.228.5424)

hǣðenscipe = paganism (*hǣðen* = pagan)

(259) **Hæþenscipe** bȳð, þæt man dēofolgyld weorðige, þæt is þæt man
heathen-state is that man devil-worship celebrates that is that man
weorþige hǣðene godas & sunnan oððe mōnan,
celebrates heathen gods and sun and moon
(LawIICn:5.1.18)

gefērscipe = fellowship (*gefēr* = fellow, society)

(260) Wæs sē Wynnferð of þæs biscopes **gefērscipe**, þǣm hē eft æfterfylgde,
was the Wynnferth of the bishop's fellow-state whom he often followed
(Bede_4:3.272.16.2770)

gebēorscipe = place of entertainment, feast (*gebēor* = guest, from *bēor* = beer)

(261) … þæt man gōdne mēte oþþe þæt betste wīn on **gebēorscipe** drince, …
that one good food or the best wine in guest-state drinks
(HomS_17_[BlHom_5]:57.35.701)

For some of these formations the meaning of its parts, Noun + *-scipe*, is still transparent. We could say that the meaning of *sinscipe* is 'created everlasting state', and this is also possible for *weorðscipe* and *frēondscipe*. For other formations this seems to be problematic: if we take *þēodscipe* the meaning 'nation' is transparent since it denotes 'a created state by the people' but the meaning 'teaching' (state of knowledge) which arose due to a metonymic shift is not. Moreover, note that most of these formations also denote collectivity. This is an interesting and important observation to which we will come back in chapter 6 when a lexical-semantic analysis will be proposed. Thus, for some of the formations in the table it seems to be the case that they can be subsumed under a meaning 'state of N' because they have a

resultative meaning, but for others this does not apply. From what we know about the storing of words (see chapter 3) we could assume a correlation between frequency of occurrence and transparency of meaning: those elements that occur with a high token frequency may well be established (non-compositional meaning). This assumption might apply to *þēodscipe* which seems to have a non-compositional meaning and a quite high frequency of occurrence. What this could also imply is that these formations are lexicalised compounds and thus not part of the derivations with *-scipe*. Those formations that seem to share a meaning with other formations ('state of N') would have to be analysed as derivations with a *-scipe* as suffix.

Next, we will examine formations with adjectival bases. The formation of that type with the highest frequency of occurrence is *wærscipe* (25 cases), formed from *wær* 'true, wise' and *scipe*. As the two examples below show it can have two meanings: 'prudence' (in (262) a number of virtues are listed), and 'cunning' (in (263) some properties of a nadder are listed, that are consequently negative):

wærscipe = prudence, cunning (*wær* = true, wise)

(262) þonne is ðǣre saule good **wærscipe** & gemetgung & geþyld &
then is the soul's good wise-quality and moderation and patience and
rihtwīsnes & wīsdōm, & manege swelce cræftas;
righteousness and wisdōm and many such virtues

(Bo:34.87.7.1661)

(263) & eft ðǣre culfran biliwitnesse sceal gemetgian ðǣre nǣdran
and again the dove's innocence shall control the nadder's
wærscipe & hire nīð, …
cunning-quality and her enmity

(CP:35.237.21.1559)

In both cases *wærscipe* denotes a property (of the soul in the first case, and of the nadder in the second case) and the adjective is used attributively. Moreover, a metonymic shift from a positive property, prudence, towards a negative property, cunning, can be observed. If this formation is compared with the same type of formation and *hād* as second element (the example is repeated here as 264) we find a contrast:

(264) … þæt ic nū segcan wylle, of **[DP$_{Dat}$** þǣre **[NP** **gesægene** **[NP$_{Gen}$**
that I now say will of the speech
[mīnes efenhādan] **þæs biscopes]]]**, …
my equal-in-state (co-bishops) the bishops

(GD_1_[C]:5.43.20.481)

As noted above, the adjective *efen* is used predicatively in that it denotes the bearer of the property of being pure. For the formations with *-scipe* we cannot find examples of the attributive type. We also only find resultative readings of Adjective + *-scipe* formations. Some further examples illustrate this:

framscipe = boldness (*fram* = bold)

(265) ðā wæs for his **fromscipe** onstyred Ædan Scotta cyning, þē ðe
then was because-of his bold-quality disturbed A., Scot's king, who
in Breotone eardigað;
in Brittany dwelled

(Bede_1:18.92.14.847)

glēawscipe = sagacity (*glēaw* = sagacious)

(266) þā wundrodon hīg ealle þe gehīrdon be his **glēawscipe**, &
then astonished-were they all who heard of his sagacious-quality and
hys andswarum.
his answers

(Lk_[WSCp]:2.47.3749)

hwætscipe = vigour (*hwæt* = vigorous)

(267) & ðēah wēnað men ðæt hit sīe for ārodscipe & for
and yet believe men that it be because of vigorous-quality and for
hwætscipe.
bravery

(CP:20.149.12.1015)

gēapscipe = cunning (*gēap* = cunning)

(268) ðēah þurh his **gēapscipe**. oððe þurh gærsuma hē begeat þone
yet through his cunning-quality and through gifts he obtained the
castel æt Sancte Waleri.
castle at S. W.

(ChronE_[Plummer]:1090.5.3065)

holdscipe = loyalty (*hold* = loyal)

(269) & eallra þǣra manna land hī fordydon þe wǣron innan þæs cynges
and all the men's land they destroyed who were within the king's
holdscipe.
loyal-quality

(ChronE_[Plummer]:1087.11.2981)

In all these examples the event reading is not possible, only the resultative reading is available. As concerns frequency, these derivations show a lower frequency of occurrence as the nominal ones. This could imply that they are decomposed by the speaker to build new words with the suffix (they are not stored as such). If we further assume that hapaxes can be an indicator of neologisms, i.e., newly coined forms with a productive pattern, we should find one meaning for all newly built formations, 'state of N' and 'property of being A'. All formations given in Table 4.81 have hapax status in OE.

The table shows 13 formations with an adjectival base and 9 with a nominal base. Those with an adjectival base denote 'the property of being A'. The OED classifies these formations

Hapaxes with -scipe in OE			
	M	**B**	**T**
dolscipe	'foolish-quality (A)	4	1
ðwēorscipe	'perverse-quality (A)'	19	1
gālscipe	'lust-state (N)'	6	1
ealdordōmscipe	'alderman-state (N)'	62	1
gebrōðorscipe	'brother-state (N)'	1306	1
gebyrdscipe	'child-bearing-state (N)'	47	1
gerestscipe	'resting-place-state (N)'	2	1
gesīðscipe	'fellow-state (N)'	67	1
geswǣsscipe	'intimate-quality (A)'	15	1
hēamolscipe	'miserly-quality (A)'	1	1
hēowscipe	'form-state (N)'	20	1
nāhtscipe	'nothing-quality (A)'	310	1
rēðscipe	'fierce-quality (A)'	154	1
snellscipe	'bold-quality (A)'	1	1
stuntscipe	'foolish-quality (A)'	44	1
tūnscipe	'town-state (N)'	10	1
woruldscipe	'world-state (N)'	1060	1
ārodscipe	'quick-quality (A)'	4	1
cāfscipe	'bold-quality (A)'	4	1
unārodscipe	'cowardly-quality'	–	1
unwærscipe	'foolish-quality (A)'	30	1
Total			21

Table 4.81: *Hapaxes with -scipe in OE*

as compounds, although it is not clear why. Those with nouns partly have idiosyncratic meanings (*gebyrdscipe*, *gerestscipe*), something we would not expect under the assumptions discussed above. This might be due to the fact that hapaxes in diachronic corpora do not have the same status as hapaxes in synchronic corpora, so hapaxes like *gerestscipe* do not show a newly coined form but an old, idiosyncratic form that happens to occur once in this corpus. Therefore, we have to be careful with the notion of hapaxes here and probably cannot take it as an indicator for productivity in all cases (see also previous sections).

Apart from these observations, we can say that the two assumptions made above for all the formations with *-scipe* imply that Table 4.81 contains compounds with *scipe* as second element and derivations with *-scipe* as suffix. Those hapaxes that show newly built formations indicate the suffixal status of *-scipe* and that it productively builds new formations (see the criterion of productivity). We have also seen that most formations show a resultative reading which implies, along Messing's assumptions, that *-scipe* is well on its way of becoming a suffix. All these observations are plausible since the development of suffixes is a gradual process with transitions between these stages.

In the next section we will deal with *-scipe* in Middle English. By comparing its status and frequencies in OE with the status and frequencies in ME some observations and assumptions will be explained and strengthened.

4.4.3 *-shipe* in Middle English

In this section we will survey the status of the suffix *-shipe* in ME. First of all, let's examine the entry from the MED:

-ship(e (suf.) Also *-shippe*, *-sip*(e, *-sippe*, *-chip*(e, *-chippe*, *-shep*(e, *-sheppe*, *-chep*(e, *-cheppe*, *-chope*, (chiefly WM & SW) *-shup*(e, *-shuppe*, *-chupp*(e, (SW or K) *-ssip*(e, (NWM) *-shape*, (N & early) *-scip*(e, (N) *-scippe*, *-scep*(e, *-scap*, *-cip* & (early SEM) *-supe* & (error) *skapt*; [. . .]

[OE *-scipe*, *-scype*.]

A derivational suffix frequent in nouns of OE origin, denoting a condition, state of being, status, rank, or an office: *fēondscipe, frendshipe, hethenshipe, lordshipe, refshipe, worshipe*, etc.; a quality, characteristic quality, or an activity: *arghshipe, frendshipe, gladshipe, godshipe, gōlsipe, lordshipe, warshipe, wodshipe, worshipe, yepshipe*, etc.; a group of persons or a thing: *metshipe, theinshipe, tounshipe, watershipe, worldshipe*. A very active suffix in ME, *-ship*(e) was added: (a) to nouns to form nouns denoting a condition, state of being, rank, an office, etc.: *baillifshipe, capitainship, constableshipe, felaushipe, kingshipe, knightshipe, ladishipe, maistershipe, manshipe, parkershipe, steuardshipe, thralshipe, toun-, clerkshipe*, etc.; (b) to nouns to form nouns denoting a quality, characteristic quality, an activity, etc.: *apeshipe, felaushipe, fērdship, knightshipe, manshipe, rotshipe, shamshipe, shendshipe, shondeshipe, sothshipe, werkmanshipe*, etc.; (c) to adjectives to form nouns denoting a quality, condition, state of being, etc.: *bisishipe, boldshipe, clenshipe, dimship, dusishipe, hardishipe, hardshipe, heighshipe, hēndeshipe*, *īdelshipe*, *kenshipe, kindeshipe, madshipe, mildeshipe, ōhtscipe, quedshipe, rēchelēshipe, sadshipe, sharpshipe, shreuedship, treushipe, unkindeshipe, wildshipe*, etc.

The following properties of this element are described in the entry: 1) it occurs in many spelling variants (as opposed to ME *-hōde/-hēde* and *dōm*), 2) it is classified as a derivational suffix that occurs in nouns of OE origin, 3) it is called a "very active suffix" in ME, 4) it occurs with nominal and adjectival bases. The statement under 2 implies that in ME there are some OE forms that have the status of lexicalised forms, at least forms that are not analysed or decomposed by the speaker.

Although the free morpheme *shipe* (and variants) exists in ME it occurs only rarely, and only with the meaning 'wages, payment' which is evident from the MED entry (and which is not of interest for us):

> *shipe* (n.) Also *shippe*, *shep(e)*, (K) *ssepe*. [OE *scipe*]
> Payment, wages; – also pl.; also, a reward.

Some examples with the free morpheme *shipe* bearing this meaning are given below:

(270) Þat hi abideþ and wylneþ þane dyaþ ase deþ þe guode workman his
that he waits and desires the death as does the good workman his
ssepe.
payment.

(AYENBI,86.1686))

(271) Thus serveth he, withoute fee or **shipe**.
thus serves he without fee or payment
(c1450(c1375) Chaucer Anel.(Benson-Robinson), 193)

Tables 4.82 and 4.83 list all formations of the type Noun + *-shipe* and Adjective + *-shipe* that occur in M1 and Table 4.84 (p. 141) provides the morphological patterning of formations with *-ship(e)* in this subperiod.

Formations with Noun + -shipe in M1				
	M	**B**	**T**	**OE**
worshipe	'worth-state'	6	45	+
gladshipe	'glad-state'	153	7	
frendshipe	'friend-state'	275	4	+
ladishipe	'lady-state'	642	3	
refshipe	'steward-state'	–	3	
felaushipe	'company-state'	114	1	+
worldshipe	'worldly-matters-state'	1285	1	+
wittshipe	'knowledge-state'	138	1	+
sotshipe	'fool-state'	41	1	
Total			66	

Table 4.82: *Formations with Noun + -shipe in M1*

Formations with Adjective + -shipe in M1				
	M	**B**	**T**	**OE**
heighshipe	'high-quality'	150	7	
medeshipe	'foolish-quality'	3	6	
mildeshipe	'mild-quality'	91	5	
wodshipe	'mad-quality'	31	4	
ðolemodshipe	'patient-quality'	10	3	
cleneshipe	'pure-quality'	338	2	
quedeshipe	'wicked-quality'	89	2	
falsshipe	'deceitful-quality'	355	2	
halshipe	'whole-quality'	123	2	
fastshipe	'fast-quality'	68	2	
derneshipe	'obscure-quality'	7	1	
drerishipe	'cruel-quality'	10	1	
dusishipe	'foolish-quality'	8	1	
freshipe	'free-quality'	92	1	
hevishipe	'heavy-quality'	9	1	
ineadmodshipe	'inobedient-quality'	–	1	
kenshipe	'courageous-quality'	17	1	
lihtshipe	'light-quality'	27	1	
mekeshipe	'gentle-quality'	103	1	
treueshipe	'faithful-quality'	258	1	
hardshipe	'hard-quality'	29	1	
Total			55	

Table 4.83: *Formations with Adjective + -shipe in M1*

Morphological patterning of -ship(e) in M1			
Base	type	token	type/token frequency
N	8	66	0.12
A	23	55	0.42

Table 4.84: *Morphological patterning of -ship(e) in M1*

If the findings shown in Table 4.84 are compared with those in Table 4.79 for OE we find that both types, Noun + *ship(e)* and Adjective + *ship(e)* behave similarly in both periods: again it is the latter type that has a much higher type/token frequency than the former type. We will come back to type/token frequencies below when we compare the findings for M1 with the findings for the other ME periods. As concerns relative frequency, we see again that almost all formations show higher frequencies for the bases than for formations with these bases. There is one exception, *worshipe* where the formation has a higher token frequency than the base (6/45). Compared to OE, that same formation shows the same pattern, i.e., the base occurs less frequently than formations with that base (45/150). This implies that the likeliness that *worshipe* is a lexicalised formation in ME is quite high (amongst others, it also displays assimilation). Nevertheless, under the same assumptions, all other formations would have to be decomposed which is not very likely, and moreover, their status does not change in the course of time, which is also not plausible. If all tables of formations with *-shipe* are compared nothing changes in that respect, the preponderance of formations always exhibit higher frequencies for bases than for formations with these bases. This finding is further evidence for the fact that relative frequency cannot be used here as a criterion to define the lexicalised status of elements[52]. In the recent literature, (Schreuder & Baayen 1997, de Jong et al. 2000), it has been discovered that the number of morphologically related word types, called family size, plays an important part in the processing of simplexes. For example, it was shown that the larger the family size of a simplex, the faster lexical decisions on this simplex will be made. This effect has been called the family size effect. We will have to leave the question of whether family size effects could be used for diachronic studies for future research.

In this section, we will try to define the status of ME *-ship(e)*, or more precisely, we will try to find further evidence for the assumptions made in the previous section for OE. To do that, we need to consult the proposed formal and semantic criteria presented again in Table 4.85 (p. 142) and compare them for the compound status and for the suffix status. As concerns the formal properties, it was shown that in OE the omission of determiners and morphological agreement is found as well as non-phrasal stress. According to the literature, both stages exhibit cases of analogy although it seems to be clear that this property has to be attributed to compound rather than suffix status since analogical formations always show a semantic relation to the base-words (*frēondscipe* vs. *gesīðscipe*). This is a property that is absent in productive derivational processes; here bases need not have a semantic resemblance at all (*unkind* and *hard* in *unkindship* and *hardship*), and still, due to the semantics of the suffix, they have the same meaning. What criteria remain are the following: semantic: 1) abstract meaning, 2) differences from meaning of the free form: formal: 1) other categories as bases, 2) phonologically different form. Investigating the latter criterion reveals that there is no difference between the free and the bound form (-)*ship(e)*. The inflectional ending

[52] This is not to say that relative frequency can in general not be used to describe morphological change.

-e probably of the quality schwa gradually disappears in both forms. The comparison of ME *-hōde/-hēde* and ModE *-hood* shows that between ME *dōm* and ModE *doom* there is no discrepancy between the free and the bound forms because of general phonological changes (like those subsumed under the GVS).

Prerequisites for development:
1. Syntactic entity has a non-referential interpretation 2. Semantically compositional 3. Existence of syntactic constructions with the element in question as verbal head 4. Phrasal stress pattern (main stress on head)
Compound status (semantic and formal isolation)
1. Semantic: compound has a uniform concept, salient meaning, non-compositional, modifications refer to whole compound 2. Formal: omission of determiners, omission of morphological agreement, positional mobility, uninterruptability, internal stability, compound stress pattern (main stress on first element) 3. Process of analogy
Suffix status
1. Semantic: abstract meaning, differs from meaning of free form 2. Formal: bound morpheme, other categories as bases, phonologically different form free form 3. Process of analogy

Table 4.85: *Summary of formal and semantic criteria of syntactic phrases, compounds and suffixes*

Thus, we are left with the semantic criterion which postulates that formations with the bound form show a higher level of abstractness than compounds with that same form. Coming back to Messing's assumption we could say that *-scipe* has the status of a suffix if resultative readings predominantly occur (recall that he assumes a development from the denotation of an ongoing, repeated action to the denotation of a state that could further develop into the denotation of an object (result)). First, let us compare Table 4.77 with Table 4.82: the only formations occurring in both tables are *weorðscipe* (ME *wor(ð)shipe*), *frēondscipe* (ME *frendshipe*) and *woruldscipe* (ME *worldshipe*). The first one has the highest frequency in both tables, and according to what was said about frequencies and productivity in diachronic texts we assume that both OE *weorðscipe* and ME *wor(ð)shipe* are established in the speaker's lexicon. In the ME version of the formation we find a phonological change, a progressive total assimilation of the dental fricative in the coda of the first syllable, what remains is the palatal sound in the onset of *-shipe*. The high frequency of this formation and the phonological change internal to the formation are indicators for lexicalisation (see Bauer (2002)). The second formation, has a high frequency in OE (43 cases) but quite a low frequency in ME (4 cases). The third formation occurs only once in both periods. For the OE period this could imply that *woruldscipe* is a newly coined formation but for ME this cannot be assumed since it already occurred in OE. The finding could also imply that the formation is disappearing altogether. It shows again that so-called hapaxes have not the same status in diachronic corpora especially since the corpora available are very small. Still, a number of them are hapaxes showing neologisms, i.e., new productively built formations with *-scipe*. According to the criterion of productivity, at least two hapaxes have to occur to attest productivity, and this is borne out here.

Coming back to the semantic criterion we will try to define the meaning of these formations to see whether changes occur. *Wor(ð)shipe* with the highest frequency of occurrence shows the resultative reading ('honour') but also the activity reading ('the action of paying honour or respect') the latter of which is illustrated with the examples below (note the *-ing*-nominalisations in the ModE translation):

(272) schāde þe eilen & þe chef from þe cleane cornes. þt is þurch
separate the awn and the chaff from the clean corns that is through
bisi **warschipe**.
devoted prudence

(ANCRIW,II.199.2845)

(273) Halegen, ase ge luuieð mest, in heore **wurchipe** seggeð Pater Nosteres,
saints as you love most in their worshipping say pater noster
(ANCRIW,I.64.216)

Another important finding is that in the *Trinity Homilies* the deverbal form of *worship* occurs (probably for the first time) with the meaning 'render religious homage to God'. Since this is a case of conversion from noun to verb the status of the noun at the time of conversion must have been an established word with high frequency.

(274) and understonden him on ure eðele bede and **wurðsupen** him on ure
and understand him in our devout prayer and worship him in our
edie dede.
blessed deed

(TRINIT,5.25)

Formations with an adjectival base only have a resultative reading and are used attributively[53]. Thus, apart from the examples given for *worshipe* the formations with *shipe* consistently denote properties of persons or things. Some further examples illustrate this:

(275) He seggde; & tu shallt off þatt child Habbenn **gladdshipe** & blisse.
he said and thou shalt of that child have delight-state and bliss
(ORM,I,24.301)

(276) hwa mei þenche þe weole. þe wunne. & te blisse. þe
who may conceive-of the prosperity the joy and the bliss. the
hehschipe of þis mede þt tes ilke lut word biclupped abuten?
high-quality of this reward that this same few word calls about
(HALI,141.188)

(277) Hwet **meadschipe** makeð þe þu bittre balefule beaste to weorri þe
what mad-state makes thee thou cruel fierce beast to attack the-one
þet wrahte þe & alle worldlich þing.
that created you and all worldly things

(KATHE,45.422)

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[53] The construction *habben gladdshipe* in example 4.4.3 shows that it is more likely that *glad* is a noun, not an adjective.

(278) gef þu hauest wið meiðhād; meokelec. & **mildschipe**; godd is i
if thou havest with maidenhood humility and mild-quality god is in
þin heorte.
thine heart

(HALI,160.451)

This finding also applies to the hapaxes in Table 4.83 (p. 140):

(279) and gef hom eche **frechipe** alle þa þet hit alde cunnen.
and gave them eternal free-state all those that it grow-old seek

(LAMB1,75.64)

(280) þe **heuischipe** of hire flesch. binimeð hire flucht.
the heavy-quality of their flesh deprives them flight

(ANCRIW,II.106.1312)

For the next subperiod in ME, M2 (1250-1350), the following formations for the type Noun + *-shipe* (Table 4.86) and for the type Adjective + *-shipe* (Table 4.87) occur:

Formations with Noun + -shipe in M2				
	M	**B**	**T**	**OE**
worshipe	'worth-state'	6	37	+
lordshipe	'lord-state'	3326	17	+
felaushipe	'company-state'	114	8	+
frendshipe	'friend-state'	275	2	+
shendshipe	'harm-state'	14	1	
Total			65	

Table 4.86: *Formations with Noun + -shipe in M2*

Formations with Adjective + -shipe in M2				
	M	**B**	**T**	**OE**
wodshipe	'mad-state'	31	4	+
īdelshipe	'idle-quality'	77	2	
dronkenshipe	'drunken-state'	22	1	
Total			7	

Table 4.87: *Formations with Adjective + -shipe in M2*

If the tables for M1 and M2 are compared we find the following new coinages: *lordshipe*, *wodshipe*, *īdelshipe*, *dronkenshipe* and *shendshipe*. Since *lordshipe* has a frequency of occurrence of 17 it does not seem likely that this is a new formation. Moreover, this formation has occurred in OE, which makes it clear that it is an established formation. The same applies to *wodshipe* and *dronkenshipe* that can be found in OE (not in the corpus but see OED). This finding shows again that it is very difficult to define new formations here, mainly because of the sparsity of the data. We are left then with *īdelshipe* and *shendshipe* that occur in the following contexts and denote 'the property of being idle' and 'the state of shame' [54]:

[54] Note that in texts from M2 onwards we find French influence, e.g., *reproced* 'reprochier' OF, or *dafaut*. We will come back to this point below.

(281) hij reproced my soule of **īdelshippe**.
they rebuked my soul of idle-quality

(EARLPS,39.1678)

(282) For þare es no syn, … no schame, no **schenchipe**, no defaut
because there is neither sin nor shame nor shame-state nor fault

(ROLLTR,40.838)

Table 4.88 shows the morphological patterning of formations with *-shipe* in M2. Compared with the morphological patterning of formations with *-ship(e)* in M1 we find a stable type/token frequency of both types, Noun + *-ship(e)* and Adjective + *-ship(e)*. Below we will see whether this finding can be confirmed for the other two ME periods.

Morphological patterning of -ship(e) in M2			
Base	type	token	type/token frequency
N	5	65	0.07
A	3	7	0.42

Table 4.88: *Morphological patterning of -ship(e) in M2*

In the subperiod M3 the following formations for the type Noun + *-shipe* (Table 4.89) and for the type Adjective + *-shipe* (Table 4.90) occur.

Formations with Noun + -shipe in M3				
	M	**B**	**T**	**OE**
worshipe	'worth-state'	6	126	+
lordshipe	'lord-state'	3326	52	+
frendshipe	'friend-state'	275	26	+
felaushipe	'company-state'	114	13	+
shendshipe	'harm-state'	14	8	
baillifshipe	'bailiff-state'	14	1	
neighbourshipe	'neighbour-state'	61	1	
Total			227	

Table 4.89: *Formations with Noun + -shipe in M3*

Formations with Adjective + -shipe in M3				
	M	**B**	**T**	**OE**
īdelshipe	'idle-quality'	77	2	
nakedshipe	'naked-quality'	104	1	
rēchelēshipe	'reckless-quality'	5	1	
Total			4	

Table 4.90: *Formations with Adjective + -shipe in M3*

Compared with the tables for M1 and M2 we find the following new formations: *baillifshipe*, *nakedshipe*, *neighbourshipe*, *rēchelēshipe*

(283) Gyue a rekenyng of þi **baylischipe**, …
give an account of thy bailif-state

(WYCSER,256.563)

(284) He rehersyth all þe woo þat he suffyrd yn dyuerse trauayls, yn
he narrated all the woe that he suffered in diverse toils in
mischeves, yn colde, yn **nakedschip**, ...
mischiefs in cold in naked-quality

(MIRK,70.1896)

(285) But of **neygboreschype** of place or dwellyng or of worldly frenchipe
except of neighbour-state of place or dwelling or of worldly friend-state
schulde men not rekken here;
should man not care here

(WYCSER,273.845)

(286) But be-war þat þou þoru **rēchelēshiperecheleeschip** geue no place to
but be-aware that thou through reckless-quality give no place to
þin enemyes, ...
thine enemies

(HILTON,7.45)

Baillifshipe is an interesting example because the base is of French origin[55], and it is the first formation here with *-shipe* that occurs with a non-native base. This clearly implies that at that stage *-shipe* is analysed as a word-formation element from the speaker. A look in the MED shows that other formations with non-native, i.e., Old French bases, occur. The following formations are listed: *culvertshipe* 'villainy', *couardshipe* 'cowardice', *debonairshipe* 'mildness', *hidousshipe* 'fear', *innocentshipe* 'innocence', *portershipe* 'office of doorkeeper', *restishipe* 'rancidness'. It is also applied to bases that have not been used with this suffix as *naked* and *reckless* which further supports the assumption that *-shipe* has the status of a suffix attaching to nominal bases, and to a higher degree, adjectival bases quite freely. Table 4.91 provides the morphological patterning of these formations:

Morphological patterning of -ship(e) in M3			
Base	type	token	type/token frequency
N	7	227	0.03
A	3	4	0.75

Table 4.91: *Morphological patterning of -ship(e) in M3*

Compared to M1 and M2 we find a new situation here: for the type Noun + *-ship(e)* a high number of tokens refers to one type, i.e., the number of tokens per type is very high which implies that these tokens are used quite frequently and are well established and probably lexicalised. For the type Adjective + *-ship(e)* we almost find the same number of tokens that we find for types, which implies that most tokens found constitute a new type (although the data is sparse, of course).

Finally, let us take a look at the M4 period and compare these findings with the findings from the other ME periods surveyed so far.
For M4, Table 4.92 (p. 147) presents only the type Noun + *-ship(e)*, the type with adjectival bases has disappeared. If we examine the number of types and tokens of this pattern (Table 4.93, p. 147) the same results as for M3 can be obtained: the number of tokens is quite high in relation to the number of types.

[55] According to the MED a *bailif* is an official of the English crown with delegated administrative or judicial authority.

Formations with Noun + -ship(e) in M4				
	M	**B**	**T**	**OE**
felaushipe	'company-state'	114	113	+
worshipe	'worth-state'	6	99	+
lordshipe	'lord-state'	3326	13	+
frendshipe	'friend-state'	275	9	+
tounshipe	'town-state'	10	1	+
Total			235	

Table 4.92: *Formations with Noun + -ship(e) in M4*

Morphological patterning of -ship(e) in M4			
Base	type	token	type/token frequency
N	5	235	0.02

Table 4.93: *Morphological patterning of -ship(e) in M4*

The only new formation that occurs here (in ME) as hapax is *tounshipe*. However, if we regard Table 4.77 (p. 129) again with the OE formations we see that it occurred there, i.e., it is not a new formation:

(287) … of the weche the lord of the maner of Acle payeth iii li., and the
of the which the lord of the manor of A. pays 3 li. and the
tounesheppe payeth iiii li.
villagers pay 4 li.

(REYNES,162.151)

(288) & hēht ðone **tūnscipe** ealne ofslean, & þone tūn forbernan.
and commanded the villagers all kill and the town burn

(Bede_5:11.416.25.4190)

The formation **township** in both the ME example and the OE example shows a metonymy, it denotes the inhabitants of a town or community (it does not have the locative reading 'territory' here). It was shown above for *-hood* ('state of N') and *-dom* ('world of N') that productively built formations predominantly show metonymies. This applies to ModE newly coined formations but also to formations that have existed for quite a long time (the latter ones show a number of metonymies that make their semantic development traceable). This finding further strengthens the claim that ME *-ship(e)* has suffixal status.

In Table 4.94 (p. 148) all formations of the type Noun + *-ship(e)* in ME are listed.
If we compare the four ME periods we find the morphological patterning for ME as given in Table 4.95 (p. 148). What is most striking is that the type Adjective + *-shipe* disappears in this period. In M1 this type of formation occurs frequently, and the low correlation between the number of types and tokens suggests that many of these types occur rarely. The type/token ratio is 0.44. In M2 we find a similar result for this pattern although only 3 types and 7 tokens occur, and therefore the ratio of 0.42 is not significant. The same applies to the findings for M3 for that type. Thus, the main result here is that in M1 we still find the pattern, in M4 it has disappeared in the corpus data (for an explanation see chapter 5). Concerning the nominal type we find a high correlation between types and tokens that increases from M1 to M4 (from 6/58 to 5/235). This clearly implies that most of the formations are of a high frequency

Formations with Noun + -shipe in ME				
	M	**B**	**T**	**OE**
worshipe	'worth-state'	6	309	+
gladshipe	'glad-state'	153	7	
frendshipe	'friend-state'	275	41	+
ladishipe	'lady-state'	642	3	
lordshipe	'lord-state'	3326	82	+
refshipe	'steward-state'	–	3	
felaushipe	'company-state'	114	135	+
worldshipe	'worldly-matters-state'	1285	1	+
wittshipe	'knowledge-state'	138	1	+
sotshipe	'fool-state'	41	1	
shendshipe	'harm-state'	14	9	
baillifshipe	'bailif-state'	14	1	
neighbourshipe	'neighbour-state'	61	1	
tounshipe	'town-state'	10	1	+
Total			595	

Table 4.94: *Formations with Noun + -shipe in ME*

Morphological patterning of -shipe in ME				
Period	Base	type	token	type/token frequency
M1	N	6	58	0.10
	A	24	54	0.44
M2	N	5	65	0.07
	A	3	7	0.42
M3	N	7	227	0.03
	A	3	4	0.75
M4	N	5	235	0.02

Table 4.95: *Morphological patterning of -shipe in ME*

and well established in the speaker's lexicon. It can also be shown that from M1 to M4 the type/token ratio decreases implying that less and less different types are built. Compared to the findings from OE these findings have to be interpreted as a decrease for both types. Table 4.96 presents a comparison of the morphological patterning of the types of formations found in OE and ME:

Morphological patterning of -scipe/-ship(e) in OE and ME			
Old English			
Base	type	token	type/token frequency
N	23	534	0.04
A	24	59	0.40
Middle English			
Base	type	token	type/token frequency
N	12	585	0.02
A	26	64	0.40

Table 4.96: *Morphological patterning of -scipe/-ship(e) in OE and ME*

We find strong resemblances for both types: in OE and ME the type/token ratio is very similar, with the Noun + *-scipe/-ship(e)* type showing a high number of tokens per type, and the Adjective + *-scipe/-ship(e)* type showing a rather low number of tokens per type. The finding for the formations with adjectival bases could imply that it is the pattern that is more productive especially since many hapaxes occur here. However, we have seen that in M4 this pattern disappears, and we will see in the next section that this observation is borne out for ENE. Thus, the type/token ratio for ME reflects a pattern that will disappear.

We have further seen that as late as M2 *-ship(e)* has developed into a suffix, evidence of which comes from the lack of occurrence of the free morpheme, the consistent semantics of the formations that cannot explained with analogical processes, and from the fact that *-ship(e)* also occurs with non-native bases. At that time the speaker must have analysed the element as word-formation element that can be attached to native and non-native bases.

Thus, the three elements under investigation behave differently in OE and ME which means that they started to develop at different times (and *-shipe* seems to have started first). If the frequency of occurrence of the free forms are compared this difference becomes quite clear:

Free morphemes hād, dōm, scipe in OE and ME		
Old English		
hād	dōm	scipe
72	192	0
Middle English		
-hōd/-hēd(e)	dōm	-ship(e)
9	168	0
Free morpheme in ModE		
no	yes (doom)	no

Table 4.97: *Free morphemes hād, dōm, scipe in OE and ME*

In OE, both *hād* and *dōm* occur as nominal heads in syntactic phrases modified by adjectives and nominal genitives (or on their own). For *scipe* we could not find evidence for its status as free morpheme in the corpus. In ME, *-hōd/-hēd(e)* still occurs as free morpheme but the frequency of occurrence has drastically decreased (note that we are not interested in homonyms here). In contrast, *dōm* still occurs with a high frequency as free element with the salient meaning 'judgement' (and metonymies). Again and not surprisingly, *-shipe* is the exception, it does not occur as free element denoting a (resultant) state. Today, only *dōm* has survived in the ModE free form *doom*. It was suggested above that this fact might be correlated with the finding that *-dom* developed into a suffix only in the nineteenth century whereas both *-hood* and *-ship* had reached this status long before.

4.4.4 *-ship* in Early Modern English

In this section the further development of the suffix *-ship* will be investigated. First, we will take a look at the first period, E1, (1500-1569). The following table shows all formations found in that period:
First, we see from Table 4.98 (p. 150) that only formations with a nominal base occur (since in ME the patter Adjective + *-ship* was lost). Further, formations like *lordship*, *frendship*

Formations with Noun + -ship in E1				
	M	**B**	**T**	**ME**
lordship	'lord-title'	5219	49	+
frendshipe	'friend-state'	518	33	+
worshipe	'worth-state'	–	21	+
mastership	'master-state'	1160	17	
ladyship	'lady-title'	738	12	+
fellowship	'company-state'	361	11	+
manshipe	'man-state'	7045	9	
wardenship	'warden-office'	34	5	
chauncellorship	'chancellor-office'	88	4	
workmanship	'workman-skill'	10	4	
presidentship	'president-office'	138	2	
apostleship	'apostle-office'	201	1	
captainship	'captain-office'	253	1	
mistresship	'mistress-title'	295	1	
provostship	'provost-office'	3	1	
secretaryship	'secretary-office'	155	1	
township	'town-state'	1171	1	+
trewandship	'truant-state'	1	1	
Total			174	

Table 4.98: *Formations with Noun + -ship in E1*

and *worship* occur with a rather high frequency, which parallels the findings from previous periods. Those formations occurring in the table as hapaxes have the status of newly built formations, and according to the criterion of productivity, this shows that *-ship* productively builds formations, at least to some degree. Some of them are illustrated with the examples below:

(289) Nowe what is lesse estemed then the said **prouostship**?
now what is less esteemed than the said provost-office

(BOETHCO,61.128)

(290) 6. Mr. Wotton gave up his **secretaryship**, ...
6. Mr. Wotton gave up his secretary-office

(EDWARD,292.22)

In both examples the meaning of *prouostship* and *secretaryship* is 'office of N'. This meaning results from the salient meaning 'resultant state' via a metonymic shift. If the three suffixes are compared, semantic shifts can be observed: *hād* used to denote 'office of N' but the ModE form *-hood* productively no longer has this meaning. The same is true for OE *dōm* ('authority of N') and ModE *-dom*. Thus, it seems that within the paradigm of suffixes building abstract nouns salient meanings of one suffix may shift to another suffix of that class but only if their salient meanings allow for it. Some further examples illustrate that in ENE 'office of N' is a salient meaning of formations with *-ship*:

(291) And upon the lord Coniers' resignatione the **capitainship** of the castel of
and upon the lord C.'s resignation the captain-office of the castle of
Carlil was appointed to Gray, and the **wardenship** of the West marches to
C. was appointed to G. and the warden-office of the West marches to
sir Richard Musgrave.
Sir R. M.

(EDWARD,448.316)

There are formations like *trewandship* where we find the meaning 'state of N' (but which also includes an activity, see *to play truant*):

(292) I would not haue the master, either froune, or chide with him, if the
I would not have the master, either frown, or chide with him if the
childe haue done his diligence, and vsed no **trewandship** therein.
child has done his diligence and used no truant-state therein

(ASCH,2R.23)

Another meaning that occurs quite frequently is 'title of honour' (which has not occurred before; in ME we still find the meaning 'the person of a high official or man of high social status' (usually in direct address, see the MED). Thus, it seems that nouns denoting positions of high social rank started to develop this specialised meaning in this period due to a metonymic shift. Note that this metonymy only occurs for *-ship*.

(293) My dewty promysed unto your **Lordship** in my most humbliest maner;
my duty promised onto your lord-title in my most humbly manner

(KSCROPE-1530,112.2)

(294) Maddam, after my most louely I recomend me to your **ladyship**, ...
madam after my most lovely I recommend me to your lady-title

(ABOTT,229.3)

(295) Tib Talk. Forsoth here is one would speake with your **mistresship**.
T. T. Truly here is one would speak with your mistrestitle

(UDALL,.57)

Table 4.99 gives the morphological patterning of word formations with *-ship* in E1:

Morphological patterning of -ship in E1			
Base	type	token	type/token frequency
N	19	174	0.02

Table 4.99: *Morphological patterning of -ship in E1*

In E2, the time span from 1570 to 1639, the formations given in Table 4.100 (p. 152) are found. Compared to Table 4.98 we find only three new types (and also hapaxes) of formations with *-ship* (the hapax status of *fellowship* and *mastership* reflects rarity of these two types rather than a new formation since both occurred in E1):

(296) That hee may take part of this ministerie and **Apostleship**, from which
that he may take part of this ministery and apostle-office from which
Iudas by transgression fell, ...
Judas by transgression fell

(AUTHNEW,I,20A.758)

Formations with Noun + -ship in E2				
	M	**B**	**T**	**ME**
lordship	'lord-title'	5219	44	+
worshipe	'worth-state'	–	38	+
frendshipe	'friend-state'	518	21	+
workmanship	'workman-skill'	10	6	
ladyship	'lady-title'	738	3	+
wardenship	'warden-office'	34	2	
apostleship	'apostle-office'	201	1	
fellowship	'company-state'	361	1	+
horsmanship	'horseman-office'	51	1	
mastership	'lord-title'	1160	1	
scholarship	'scholar-skill'	287	1	
Total			119	

Table 4.100: *Formations with Noun + -ship in E2*

(297) The end of **Hors-manshippe**.
the end of horsman-office

(MARKHAM,1,86.112)

The first formation, *apostleship*, denotes 'the office of an apostle' (see also LEME) and thus belongs to the group of formations discussed for E1. It seems that if formations are newly built with the suffix the likelihood that they bear this denotation is quite high. The same applies to *horsmanship* which denotes, according to the LEME (Elisha Coles, An English Dictionary (1676)), 'Chivalrie, ... also a tenure by Knights service'. The other new formation, *scholership* is very interesting because it shows the occurrence of the meaning 'skill of N' of *-ship*-suffixations we haven't come across so far:

(298) Allso you would have me send you word how I speede with the
also you would have me send you word how I speed with the
schollersship, of which I can write noe certainty unto you, onely expect
scholarship, of which I can write no certainty to you only expect
the best,
the best

(JOXINDEN,48.3)

(299) M. Banester who because he hath not **scholership** to do anything but
M. Banester who because he has not scholarship to do anything but
greedy of a vayn popular estimation to be thowght excelent or something...
greedy of a vain popular estimation to be thought excellent or something

(MADOX,119.94)

The OED gives the following (main) meanings for *scholarship* (in chronological order): 1. 'The status or emoluments of a scholar at a school, college, or university', 2. 'The attainments of a scholar; learning, erudition; esp. proficiency in the Greek and Latin languages and their literature.' The first example nicely illustrates the first meaning which denotes some sort of payment by an educational institution. In the second example, however, the meaning of

scholership does not refer to payments but to the knowledge or proficiency of a person (actually the person in the example does not have it). These seem to be quite different meanings but if we recall that in OE (and also in ME) the free morpheme *scipe* could have the meaning 'wages, payment' we can explain why the first meaning occurs for *scholarship*. As concerns the second meaning, 'attainments of a scholar' denote the result of the work of a scholar, hence also including skills of a person with this profession. It is exactly the combination of a noun denoting a person of a profession which requires certain specific skills and *-ship* where this meaning occurs (see the discussion below). It also explains why this meaning cannot and does neither occur with *-hood* nor *-dom*. We will leave further discussions for chapter 6 where a semantic analysis of these formations will be given. Table 4.101 gives the morphological patterning of word formations with *-ship* in E2:

Morphological patterning of -ship in E2			
Base	type	token	type/token frequency
N	11	119	0.9

Table 4.101: *Morphological patterning of -ship in E2*

In the third ENE period, E3 (1640-1710), the formations with *-ship* given in Table 4.102 occur:

Formations with Noun + -ship in E3				
	M	**B**	**T**	**ME**
frendshipe	'friend-state'	518	89	+
lordship	'lord-title'	5219	53	+
fellowship	'company-state'	361	21	+
worshipe	'worth-state'	–	21	+
ladyship	'lady-title'	738	13	+
courtship	'court-skill'	605	2	
kingship	'king-state'	2610	1	+
partnership	'partner-state'	10	1	
pretorship	'pretor-office'	–	1	
saintship	'saint-state'	148	1	
workmanship	'workman-skill'	10	1	
Total			207	

Table 4.102: *Formations with Noun + -ship in E3*

We also find one formation with an adjectival base as Table 4.103 shows:

Formations with Adjective + -ship in E3				
	M	**B**	**T**	**ME**
hardship	'hard-quality'	305	3	+
Total			3	

Table 4.103: *Formations with Adjective + -ship in E3*

The formation *hardship* has occurred in M1 and hence is an established formation. As shown for *-hood* and *-dom*, adjectival bases disappear in late ME which is probably due to the highly frequent suffix *-ness*. We will come back to this assumption in chapter 5.

As noted above, formations like *kingship* and *workmanship* that occur once do not present new formations since they have occurred already in previous periods of time that have been

surveyed so far. Note, however, that the latter formation also shows the meaning ‘skill of N’. Formations that have not occurred so far, and have the status of hapaxes (save the first one), are: *courtship*, *partnership*, *pretorship*, *saintship*. Thus, the criterion of productivity can be applied here. Some examples are given below:

(300) but all his **courtship** was, to fold his arms, pursue her with his eyes,
but all his court-skill was to fold his arms pursue her with his eyes
(BEHN,149.34)

The formation *courtship* in the given context shows again that *-ship* allows for the meaning ‘skill of N’, more concretely ‘the arts of a courtier’.

(301) and you dispose of all without my **Partnership**?
and you dispose of all without my partner-state
(FARQUHAR,66.523)

Partnership denotes ‘a Copartner, one that is joynd in partnership with another’ (LEME, the younger, English Dictionary by John Kersey (1702)). The base of this formation is relational just as the noun *friend* in *friendship* and hence the formation denotes the state of persons having that relation. The following formation behaves differently, because it is not a relational noun. It denotes ‘the state of being a saint’:

(302) I would have every body that has but the least Tang of **Saintship** to observe the Carriage of this Fellow, ...
I would have every body that has but the least tang of saint-state to observe the carriage of this fellow
(LISLE,IV,115C1.120)

According to the Younger English Dictionary by John Kersey (1702) the formation *pretorship* denotes ‘a man’s maioralty’ and thus belongs to the group of formations that denote an office:

(303) The **Pretorship** heretofore was a great and honourable Employ, and much sought after,
the pretor-office heretofore was a great and honourable vocation and much sought after
(BOETHPR,109.128)

Table 4.104 shows the morphological patterning of formations with *-ship* in the E3 period:

Morphological patterning of -ship in E3			
Base	type	token	type/token frequency
N	12	207	0.05
A	1	3	0.3

Table 4.104: *Morphological patterning of -ship in E3*

It was shown that in the last period of ENE formations with nominal bases predominantly occur, and most of these formations occur with high frequencies, i.e., a larger number of them are well established. Moreover, one type with adjectival base is found (*hardship*) that occurs only in this ENE period in the corpus. Since this formation already occurred in ME (M1),

it is also known to speakers and well established. In all three periods a number of hapaxes occur but all of them show nominal bases supporting the assumption that at that time the type Adjective + *-ship* was no longer existent.

To summarise the findings, all formations with nominal bases found in ENE are given in Table 4.105 whereas Table 4.106 provides the morphological patterning for this period.

Formations with Noun + -ship in ENE				
	M	**B**	**T**	**ME**
lordship	'lord-title'	5219	146	+
frendshipe	'friend-state'	518	143	+
worshipe	'worth-state'	–	80	+
fellowship	'company-state'	361	33	+
ladyship	'lady-title'	738	28	+
mastership	'master-title'	1160	18	
workmanship	'workman-skill'	10	10	
manshipe	'man-state'	7045	9	
wardenship	'warden-office'	34	7	
chauncellorship	'chancellor-office'	88	4	
presidentship	'president-office'	138	2	
apostleship	'apostle-office'	201	2	
courtship	'court-skill'	605	2	
captainship	'captain-office'	253	1	
mistresship	'mistress-title'	295	1	
provostship	'provost-office'	3	1	
secretaryship	'secretary-office'	155	1	
township	'town-state'	1171	1	+
trewandship	'truant-state'	1	1	
horsmanship	'horseman-skill'	51	1	
scholarship	'scholar-skill'	287	1	
kingship	'king-state'	2610	1	+
partnership	'partner-state'	10	1	
pretorship	'pretor-office'	–	1	
saintship	'saint-state'	148	1	
Total			496	

Table 4.105: *Formations with Noun + -ship in ENE*

Morphological patterning of -ship in ENE				
Period	Base	type	token	type/token frequency
E1	N	19	174	0.02
E2	N	11	119	0.09
E3	N	12	207	0.05
	A	1	3	0.3

Table 4.106: *Morphological patterning of -ship in ENE*

In the ENE period the type Noun + *-ship* is the dominant type. The only instance of *-ship* with an adjectival base is *hardship* with three occurrences. There are no new types to be found with adjectival bases in this period. As concerns formations with nominal bases we find a number of hapaxes which were illustrated with the examples above. These formations

show that *-ship* is still productive. Most of them also show that in this period meanings due to metonymic shift occur, 'office of N', 'title of honour', 'skill'. At this stage, *-ship* clearly is a suffix building abstract nouns with an underspecified 'state of N'. Before we will deal with *-ship* in Modern English a comparison of all findings (morphological patternings) for all periods investigated so far is presented in Table 4.107:

Morphological patterning of -scipe/-ship(e) in OE, ME and ENE			
Old English			
Base	type	token	type/token frequency
N	23	534	0.04
A	24	59	0.40
Middle English			
Base	type	token	type/token frequency
N	23	585	0.03
A	29	64	0.45
Early Modern English			
Base	type	token	type/token frequency
N	25	500	0.05
A	1	3	0.33

Table 4.107: *Morphological patterning of -scipe/-ship(e) in OE, ME and ENE*

4.4.5 *-ship* in Modern English

In this section we will finally survey *-ship* in ModE. So far we have seen that *scipe* developed into a suffix as early as OE, at least in some formations, and that it showed high frequencies of types and tokens in ME. Here, we would like to examine the status *-ship* has today, i.e., we will examine whether it is a productive suffix or not. To do that, we need to investigate formations found in ModE that are given in the table below:
The table presents the first thirty most frequent occurrences of *-ship* formations found in the BNC (the total number is 49600). The formation with the highest frequency is *relationship* (12860) followed by *membership* with a frequency of 5202. Let us first take a look at these formations by examining their entries in a dictionary (Webster's):

> Main Entry: re·la·tion·ship
> Function: noun
> 1: the state of being related or interrelated <studied the relationship between the variables>
> 2: the relation connecting or binding participants in a relationship: as a: KINSHIP b: a specific instance or type of kinship
> 3 a: a state of affairs existing between those having relations or dealings <had a good relationship with his family> b: a romantic or passionate attachment
> (from Merriam Webster online)

Formations with -ship in ModE (non-exhaustive)				
	M	**B**	**T**	**ENE**
relationship	'relation-state'	13989	12860	
membership	'member-state'	47142	5202	
leadership	'leader-state'	15904	4786	
partnership	'partner-state'	9052	3456	+
championship	'champion-state'	4997	3368	
ownership	'owner-state'	8748	3120	
friendship	'friend-states'	31917	2021	+
worship	'worth-state'	–	1619	+
sponsorship	'sponsor-state'	2769	1200	
scholarship	'scholar-skill'	1835	908	+
citizenship	'citizen-state'	4531	895	
lordship	'lord-title'	5943	778	+
fellowship	'fellow-state'	5009	773	+
hardship	'hard-state'	25909	693	+
censorship	'censor-state'	258	683	
kinship	'kin-state'	802	562	
apprenticeship	'apprentice-state'	1044	496	
dictatorship	'dictator-state'	345	427	
chairmanship	'chairman-office'	10415	378	
readership	'reader-state'	8652	347	
township	'town-state'	20313	296	+
courtship	'court-skill'	30364	272	+
premiership	'premier-office'	1922	272	
companionship	'companion-state'	2501	267	
craftsmanship	'craftsman-skill'	839	205	
receivership	'receiver-state'	1959	201	
workmanship	'workman-skill'	677	199	+
kingship	'king-title'	7046	180	+
stewardship	'steward-office'	1341	171	+
Total			46 635	

Table 4.108: *Formations with -ship in ModE (non-exhaustive)*

Main Entry: mem·ber·ship
Function: noun
1: the state or status of being a member
2: the body of members <an organization with a large membership>
3: the relation between an element of a set or class and the set or class
(from Merriam Webster online)

What both clearly have in common is that their bases are relational nouns which bears on the meaning of the whole formation. Both denote states, the state of being related and the state of being a member. Hence, we can assume that the result of being related and being a member is denoted by the formations *relationship* and *membership*, especially as it is also assumed that *-ship* also has this property. Further, both show meanings due to metonymic shifts (meanings given under 2 in both cases). Some examples for contexts in which *relationship* and *membership* occur are given below:

(304) a. *Structure is a relationship between two elements within a context, and graphics can often show that* ***relationship*** *more clearly than words.*

b. *Most experts say that the happiest – and longest –* ***relationships*** *are based on close friendship and shared interests, not just strong feelings.* (BNC)

(305) a. *Opponents of* ***membership****, such as the Prime Minister, argue that whatever the right level of entry it is at least necessary to reduce inflation to the European average of roughly 3-4 per cent.*

b. ***Membership*** *grew at an astonishing pace, reaching close to 30.000 in the late 1970s.* (BNC)

As indicated in Table 4.108, both types of formations occur with a high frequency in the corpus, a finding which implies that these formations are well established and probably stored as such in the speaker's lexicon. As concerns the type of base they contain, *relationship* has a nominal base denoting an abstract state and *membership* has a nominal base denoting a person. Sifting through the formations we find that almost all of them exhibit a nominal base denoting a person, an observation that has also been made for *-hood* and *-dom*. The exceptions are three completely lexicalised forms with nominal bases – *worship*, *courtship* and *township* – and *hardship* with an adjectival base. Although the base *town* itself does of course not refer to a person, in OE it was used to refer to the inhabitants of a town (see above) displaying a metonymic shift from place to persons living in that place, thus denoting a collectivity. The latter meaning is also found with *friendship*, *fellowship* and *companionship* that have their roots in OE. Further, formations like *craftsmanship* and *workmanship* occur quite frequently, denoting the 'skill or art of N', as well as formations like *lordship* or *kingship* denoting 'office of N' and 'title of N'. As was shown above, the latter meanings are metonymic shifts having arisen from the salient meaning of OE *scipe* (see chapter 5). One example that nicely illustrates the several meanings possible due to this development is *readership*. The OED gives the following meanings:

1. office of a reader
2. a title
3. total number of (regular) readers of a periodical publication

The following examples illustrate these meanings:

(306) a. *McNair's response was uncompromising; that he should apply for, and prove himself in, a newly established* ***Readership*** *in Law and Politics at Hong Kong University.* (BNC)

b. *I trust, O gentle reader, that your* ***readership*** *will not [etc.]*

(1820, Blackw. Mag. VII. 477)

c. *The monthly magazine, founded in a garage by an American husband and wife, has a* ***readership*** *of 100million but will offer only four million shares outside the US.* (BNC)

The first meaning given in the OED exhibits the earliest date of occurrence (1719). As noted above, 'office of N' can be seen as the result of the process of creating and thus as an object reading of *readership*. The meaning 'title of N' could not be found in the BNC, hence the example given above is from the OED. In the BNC, the meaning 'total number of (regular) readers of a periodical publication' was by far the most frequent meaning found.

Next, we will take into account the hapaxes found with *-ship* to see which meanings can occur with formations that are newly and productively built (since there are so many, the hapaxes are presented in Tables[56] 4.109, 4.110 (p. 160), and 4.111 (p. 161):

Formations with -ship in ModE (hapaxes) Part I							
	l/nl	**B**	**T**		l/nl	**B**	**T**
yesmanship	nl	–	1	prime-ministership	l	3	1
writership	l	7308	1	heirship	l	1350	1
work-relationship	nl	13989	1	postmanship	nl	375	1
blood-relationship	nl	1	1	post-championship	nl	4997	1
women's-relationship	nl	13989	1	ambassadorship	l	1308	1
wage-relationship	nl	13989	1	patronship	nl	1178	1
object-relationship	nl	13989	1	parentship	l	20058	1
non-relationship	nl	13989	1	noviceship	l	622	1
market-relationship	nl	13989	1	non-censorship	nl	258	1
ill-relationship	nl	13989	1	new-membership	nl	47142	1
co-relationship	nl	1	1	neighbourship	nl	4987	1
cross-relationship	nl	1	1	merchantship	l	3435	1
worker-ownership	nl	8748	1	pro-censorship	nl	258	1
wealth-ownership	nl	1	1	liegelordship	nl	1	1
self-ownership	nl	1	1	landlordship	l	3396	1
property-ownership	nl	3	1	judgemanship	nl	–	1
phone-ownership	nl	8748	1	joint-collectorship	nl	1759	1
Lewandowski-Ownership	nl	8748	1	jockeyship	l	1043	1
joint-ownership	nl	2	1	impress-ship	nl	2713	1
gun-ownership	nl	8748	1	Hunship	nl	–	1
flexi-ownership	nl	8748	1	Housemastership	l	30	1
flat-ownership	nl	8748	1	horse-partnership	nl	9052	1
warpship	nl	335	1	horsemastership	nl	1	1
wardership	l	139	1	highwaymanship	nl	74	1
Vice-Presidentship	nl	516	1				

Table 4.109: *Formations with -ship in ModE (hapaxes) Part I*

First, what is striking is that we find a number of hapaxes with first elements attached with a dash to lexicalised forms like *relationship*:

(307) work-relationship
blood-relationship
women's-relationship
wage-relationship
object-relationship
non-relationship
market-relationship
ill-relationship
co-relationship
cross-relationship

[56] Since none of these formations have occurred in former periods the non-occurrence is not indicated in the following three tables.

Formations with -ship in ModE (hapaxes) Part II							
	l/nl	**B**	**T**		l/nl	**B**	**T**
Vice-Chancellorship	nl	121	1	headmistresship	nl	7	1
usership	nl	12549	1	handcraftsmanship	l	1	1
upmanship	l	–	1	guest-friendship	nl	31917	1
under-secretaryship	nl	341	1	governor-generalship	nl	13	1
twinship	l	2838	1	general-secretaryship	nl	6	1
tradesmanship	nl	368	1	generalizationship	nl	779	1
totem-worship	nl	1991	1	gang-leadership	nl	4	1
child-worship	nl	1991	1	forestership	l	282	1
success-worship	nl	1991	1	foodship	nl	21038	1
strength-worship	nl	1991	1	followership	l	1241	1
serpent-worship	nl	1991	1	firemanship	l	674	1
oleander-worship	nl	1991	1	anti-membership	nl	47142	1
man-worship	nl	1991	1	fanship	nl	5387	1
cow-worship	nl	1991	1	ex-leadership	nl	3	1
Dionysus-worship	nl	1991	1	dreamership	nl	175	1
teamsmanship	nl	–	1	deputy-chairmanship	nl	2	1
teachership	l	19743	1	demonstratorship	nl	829	1
teacher-librarianship	nl	16	1	cross-membership	nl	2	1
target-readership	nl	8652	1	craftspersonship	nl	6	1
copartnership	nl	36	1	cousinship	l	2459	1
surveyorship	l	1061	1	coronership	nl	702	1
sub-editorship	nl	32	1	contractorship	nl	1559	1

Table 4.110: *Formations with -ship in ModE (hapaxes) Part II*

The first elements are either simplexes or prefixes like *co-* or *non-*, many of them modifying the meaning of *relationship*. Thus, in these cases *relationship* is analysed as a unit by the speaker that can be modified by elements preceding it, which leads to some compounds of the type modifier-modified. This finding is corroborated if the token frequencies of the bases are considered: in almost all of these cases the base noun is *relation* (13989) and not, e.g., *wage-relation* or *object-relation*. Exceptions are *blood-relationship*, *co-relationship*, *cross-relationship* where *blood-relation*, *co-relation* and *cross-relation* occur as bases, implying that the last morphological process is *-ship*-suffixation. Some examples of formations where this is not the case are given below to show the contexts in which these formations occur:

(308) a. *The **work-relationship** gives them drive and commitment.*
b. *Even in relation to "classic" forms of infant battering, **ill-relationship** with parents of the parent, leading to parental inadequacy in relationships and a feeling of near-persecution by others figures prominently.* (BNC)

The same observations hold for *membership* (and also for further highly frequent formations like *ownership*, *worship* or *dictatorship*, compare the tables).

(309) cross-membership
church-membership
new-membership
anti-membership

Formations with -ship in ModE (hapaxes) Part III							
	l/nl	**B**	**T**		l/nl	**B**	**T**
stockmanship	nl	53	1	constableship	l	1917	1
sterdship	nl	–	1	conservatorship	nl	88	1
state-sponsorship	nl	2769	1	conferencemanship	nl	11243	1
pre-sponsorship	nl	2769	1	conductorship	nl	841	1
co-sponsorship	nl	10	1	commonership	nl	206	1
state-citizenship	nl	4531	1	co-directorship	nl	23	1
spokesmanship	l	4171	1	co-chairmanship	nl	41	1
pseudo-kinship	nl	802	1	cloudship	nl	3959	1
settlorship	nl	1	1	clanship	l	551	1
semi-hardship	nl	7	1	church-membership	nl	47142	1
self-salesmanship	nl	707	1	church-fellowship	nl	5009	1
secretary-managership	nl	5	1	choristership	nl	49	1
scoutmastership	nl	8	1	chamberlainship	nl	171	1
anti-leadership	nl	15904	1	chairpersonship	nl	99	1
regulationship	nl	6771	1	castle-keepership	nl	1586	1
registrarship	l	654	1	branchship	nl	8712	1
rectorship	l	473	1	brinkmanship	l	–	1
rangership	l	263	1	bicycleship	nl	1180	1
anti-dictatorship	nl	345	1	backwoodsmanship	nl	9	1
pro-dictatorship	nl	345	1	audienceship	nl	6498	1
no-dictatorship	nl	345	1	attorneyship	l	673	1
neo-dictatorship	nl	345	1	apostleship	l	432	1
Total							140

Table 4.111: *Formations with -ship in ModE (hapaxes) Part III*

As *relationship*, *membership* is preceded by simplexes or (neoclassical) prefixes like *anti-* modifying it and hence the last morphological process is not *-ship*-suffixation. Some examples with contexts are given below:

(310) a. *He attached no importance to outward forms, calling it 'abominable popery' to tie salvation to ordinances or* ***church-membership***.

b. *Joan Gatfield's Bromley and Grove Park classes achieved a* ***new-membership*** *total of over 100 by saving one-and two-penny pieces and sponsoring five senior citizens' classes to join the Society*. (BNC)

Both *church* and *new* refer to *membership* and modify it. These different types are also found for other hapaxes in the corpus. What is crucial for their analysis is whether a *-ship*-formation is part of a base or not. So, for example, we find the following three hapaxes: *teacher-librarianship*, *governor-generalship* and *guest-friendship*:

(311) *Opportunities for dual qualification, in both education and librarianship, barely existed until the pioneer establishment of a* ***Teacher-Librarianship*** *Diploma at University College London in the late 1960s, . . .* (BNC)

(312) *He was by no means a major figure in British politics at the time, though this had not prevented his being offered in 1920, when he was a mere back-bench MP, the* ***governor-generalship*** *of South Africa . . .* (BNC)

(313) *. . . and a remarkable passage in Herodotus (ix.76f.) makes Fausanias the Regent in 479 BC acknowledge a xenia (**guest-friendship**) with a man from Kos in the Dodecanese.* (BNC)

Structurally, they seem to be identical but both *teacher-librarian* and *governor-general* occur as bases whereas *guest-friend* does not. This means then that for the first two formations *-ship*-suffixation can be assumed whereas this is not the case for *guest-friendship* (it would be *friendship* + addition of *guest*). This is one criterion (apart from the non-listedness) that determines the relevant hapaxes to calculate *P* for *-ship*. This also applies to formations with *-manship*. According to the OED, *-manship* is classified as suffix. This implies that formations with this element are all analysed as base + *-manship* by the speaker. If these formations are examined in the three tables above, however, we find differences: for *conferencemanship* the base is *conference* suggesting that the formation is analysed as *conference* + *-manship*. The formation *brinkmanship* has the meaning (see Webster's) 'the art or practice of pushing a dangerous situation or confrontation to the limit of safety especially to force a desired outcome' and therefore must be derived from the noun *brink* 'the threshold of danger' + *-manship*. The same applies to *handcraftsmanship*. The formation *co-chairmanship*, however, shows the base *co-chairman* suggesting that the formation is analysed as *co-chairman* + *-ship*. To summarise, we must assume that for formations of the type Element + *manship* it is not always the case that *-manship* can be analysed as suffix and therefore it is crucial to determine the base of the formation first.

If we go through the tables with hapaxes and apply these criteria we see that some of them are listed like *writership*, *wardership*, *ambassadorship*, *parentship*, *noviceship* and therefore are not relevant for calculating *P* (recall the correlation between non-listedness and hapax-status). We will come back to this point in the conclusion below.

Some of the *-ship*-formations listed in the tables show a new stage in the development of *-ship* formations where they function as the second part of a newly built complex formation. It is those formations where the last morphological process is not *-ship*-suffixation but rather prefixation or compounding (e.g. *object-relationship*, *non-relationship*). We could assume the following development: in Pre-OE *scipe* started out as the free element and on its way of becoming a suffix it functioned as the second element in compounds (partly in OE). before it reached the status of a suffix (in OE and ME). In ModE, many of the highly frequent formations with *-ship* have the status of simplexes which can be modified by elements preceding it, showing that the whole formation now functions again as second part of compounds or derivations. Thus, we could speak here of cycles of developments that are repeated again and again, and that are driven by the semantic change of these elements (see also chapter 6). Formations with *-ship* have progressed furthest in this development since they show most formations with first element attached as modifier.

Apart from these observations, like *-hood* and *-dom* the element *-ship* predominantly attaches to nouns denoting persons. There are 7 formations displaying bases that denote concrete and abstract entities. The context in which these formations occur are given below (again all from the BNC):

(314) *Lesser expeditions departed by **warpship**; and returned.*

(315) *"And if", said Bith of the Bog-Hat, "your **impress-ship** should ever be wanting an armlet or two, or maybe a plain everyday crown circlet, we'd be happy to oblige."*

(316) *This committee acted as the co-ordinator for the activities of many other organizations, including the Spanish Medical Aid Committee, the Spain **Foodship** Youth Committee , . . .*

(317) *The £90 invested in baking ingredients was soon seen to have been good* ***sterdship****, for the unfailing supply of beautiful baking was a marvel.*

(318) *Crilly, I'll tell you about the sparkle of Belgravia, the shimmer of white marble, a sumptuous, salubrious white, the sugary white of fluffy friendship,* ***cloudship****, feely white, . . .*

(319) *. . . the body of Christ – membership – limbhood –* ***branchship****, whatever you want to call it, if whether you take your figure from John fifteen or from the Apostle.*

(320) *Many of them will also have the opportunity to attend the famous WHAM* ***Bicycleship*** *Training School.*

Some of these formations denote 'state of N' like *cloudship*, for one (*impress-ship* probably with verbal base) the meaning 'title' is found. In line with the findings for *-hood* and *-dom* the pattern with non-personal bases is the marginal one.

4.4.6 Conclusion

In this section, the development of ModE *-ship* was investigated and it was shown that compared to *-hood* and *-dom* parallels and differences are found. *-ship* is the element that already exhibits suffixal status in OE (compared to *-hood* which exhibits this status in M2 and *-dom* even later in ME), evidence of which again came from the frequency patterns and the semantics of formations with this element. In the course of time, it shows productive series of formations, and in ModE it shows the highest number of hapaxes (although not all of them are an indicator of neologismhood[57]). Moreover, as discussed above, it exhibits the cyclicity of this development. With respect to the productivity of this suffix in ModE let us take a look at the values for types, tokens, hapaxes and *P* in comparison to the values for *-hood* and *-dom*:

A comparison of *P* for -hood, -dom and -ship (ModE)					
Suffix	type	token	type/token	hapax	*P*
-hood	78	8454	0.009	32	0.003
-dom	86	15454	0.005	38	0.002
-ship	169	49600	0.003	64	0.001

Table 4.112: *A comparison of P for -hood, -dom and -ship (ModE)*

Comparing the values for type, token, type/token frequency and *P* in Table 4.112 we find that *-ship* shows the highest frequency of occurrence for types and tokens, whereas *-hood* shows the lowest frequencies. The type/token frequency with 0.009 is highest for *-hood* and lowest for *-ship* (0.003). This also applies to *P*: the highest value (0.003) is found for *-hood* followed by *-dom* (0.002) and *-ship* (0.001). Thus, from the results presented in the table above we would have to conclude that in ModE *-hood* is the suffix that is most productive, in comparison with *-dom* and *-ship* although the values are not very high compared to the value of *P* for *-ness* of 0.0088 in a study of the BNC by Plag (2003b: 57)). However, we have seen above that other suffixes like e.g. *-able* and *-ize* are less productive than *-hood*, *-dom* and *-ship* and so the gradual character of productivity becomes evident once again.

[57] I applied the criterion discussed above to all the hapaxes in the table and found that 64 adhered to all criteria and are hence neologisms.

In the next section we will compare the formations of the three elements *-hood*, *-dom* and *-ship* from a semantic point of view, i.e., we will semantically classify their bases and in this way try to find out why they sometimes occur as so-called rivals. If formations with the three elements mean the same why can they coexist? It will be shown that they have similar denotations but that each of them also has a semantic component different from the other two that can be explained with their semantic origins. This semantic component makes them different enough to coexist.

5 *-hood*, *-dom* and *-ship* as rivals in word formation processes

5.1 Introduction

In the literature (see Aronoff 1976, Plag 2003b) it has been observed that word-formations with the same base and different suffixes occur which seem to denote the same type category. Therefore, it has been claimed that they act as rivals, where often one wins out over the other. This similarity, or better the semantic relatedness between formations with *-hood*, *-dom* and *-ship* is often stated as follows:

> The native suffix -dom is semantically closely related to -hood and -ship, which express similar concepts. -dom attaches to nouns to form nominals which can be paraphrased as "state of being X", as in apedom [...], or which refer to collective entities, such as professordom [...], or denote domains, realms or territories as in kingdom [...] (Plag 2003b: 88)

However, it is never exactly stated what "similar concepts" really means and which differences the term "similar" also actually implies. Does it mean that parallel derivations are semantically differentiated sufficiently to call them "different words" or does it mean that they are synonymous? In chapter 4 it was shown that the three elements used to be distinct abstract nouns each bearing a number of meanings. The salient meanings found in the data for the three elements are:

(1)
a. *hād*: 'status, office, rank'
b. *dōm*: 'authority, judgement'
c. *scipe*: '(resultant) state, condition'

If these meanings are compared we find similar meanings like 'office', 'authority' and 'state'. But there are also a number of meanings that only refer to one of the suffixes which can be explained by the fact that they arose due to metonymic shifts. So the starting point is one of semantic similarity to a certain degree, probably the most common feature here is that all nouns denote abstract states or conditions. We could say that the three suffixes building abstracts nouns form a paradigm with the feature 'state of N', i.e., they all denote 'state of N' (that is where they overlap) but each of them also shows meanings different from the meanings of the other suffixes in the paradigm like for example 'skill of N' for *-ship*. These semantic differences must not be underestimated or ignored because they still play a role in the distribution of derivations with the three suffixes today and actually can explain why sometimes a derivation with one of the suffixes is not possible while it is possible with another one.

In the following, the alleged rivalry between formations with *-hood*, *-dom* and *-ship* will be examined under the assumption that they are not similar enough semantically to exhibit true rivalry. To do so, we need to classify the bases occurring with the suffixes, and this will be done with Carlson's (1977) distinction between stage-level and individual-level predicates. We will then examine word pairs in the stages of English (like *fatherhood* and *fathership*) to see whether they bear the same meanings or not. The result of this investigation will shed light on the nature of these formations and more generally on the nature of suffixation.

5.2 A comparison of formations with *-hood*, *-dom* and *-ship*

What is assumed here for the three English suffixes can also be observed for the cognates in other Germanic languages. In her comprehensive study on the German suffix *-tum* Tschentscher (1958) makes a similar observation with respect to the rivalry between derivations with the cognate suffixes *-heit*, *-tum* and *-schaft*. Under her assumptions, the fact that *-tum* and *-heit* compete at all is based on the meaning 'Würde, Rang' ('dignity, rank') that they share. The semantic relatedness between *-schaft* and *-tum* is due to their active reading (being nomina actionis): *-tum* 'Setzung' (*setting*), *-schaft* 'Schaffung eines Objekts' (*creation of an object*). On the other hand, she states that the difference between *-heit* and *-tum* is the static character of *-heit*, and the difference between *-schaft* and *-heit* is that *-schaft* takes nominal bases that denote offices and ranks the bearers of which have to become one instance of this office or rank and were not born with it. In this way she explains, e.g., the difference between *Menschheit* and **Menschschaft*[1]. She further points out that derivations with *-schaft* denote a state that is the result of an action of making (therefore derivations like *Mönchschaft* (*monkship*) or *Magdschaft* (*maidenship*) do not occur). She further notes that later in time, however, this rather restricted type of state was generalised so that new formations like *Magdtumschaft* could arise. What all three suffixes have in common is according to Tschentscher the meaning 'power', and that is why they occur as rivals: *Apostеltum, Apostelheit, Apostelschaft* (in a broader sense of power, authority connected with having a rank of some kind).

If we try to find parallels between Tschentscher's observations for the German suffixes and what was said above for the English suffixes we can say that all three elements share the meaning 'rank, office' and that an event reading with *-dom* ('act of judging') and *-ship* ('the act of creating sth.') can be assumed. Further, if we recall the findings from chapter 4.3 the latter observation was made for OE *dōm*: *dōm* showed an event and a result reading and that is why *-ung* nominalisations with *dōm* do not exist. On the other hand, *hād* seems to have denoted only results but not events, and therefore the *-ung* nominalisation *hādung* exists denoting events. What we have not dealt with so far is if the difference between *-hood* formations and *-ship* formations is based on the distinction proposed by Tschentscher, which is tantamount to the distinction between individual-level and stage-level predicates. In the following, we will do this by discussing Aronoff & Cho's study (2001) on the semantics of *ship*-suffixation (see also 4.2) since it is crucial for our analysis in chapter 6.

Aronoff & Cho (2001) explore the semantic conditions of *-ship*-suffixation in ModE by proposing that the type of predicate a base belongs to explains the occurrence or non-occurrence of such a derivation, thus drawing on the distinction between stage-level and individual-level predicates made by Carlson (1977). The former type of predicate applies to temporary states and denotes properties of states. Thus, they express unstable, transient stages. One example would be the noun *friend*. Individual-level predicates apply to individuals without taking into consideration time. Thus, they express stable properties of individuals, one example of which would be *child*. Aronoff & Cho (2001) suggest a further distinction pertaining to individual-level stage predicates because it helps to explain the semantics of *-ship*-derivatives. They call it left-side and right-side individual-level predicates: the former

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[1] We will see below that this distinction is tantamount to Carlson's distinction

type denotes properties that individuals have at birth until a certain point in time (*child*), and the latter type denotes properties from a certain point in time up to death (*mother*). The two poles on the scale are hence birth and death. They need this distinction to explain the following data:

(2) a. airmanship, friendship, kingship, penmanship, priestship, sponsorship
b. ??parentship, ??wifeship, ??nieceship, ??womanship

According to Aronoff & Cho, the contrast between the examples in (a) and (b) can be explained by assuming that the suffix *-ship* takes only bases that denote properties of stages, i.e., only stage-level predicates. Since *friend* is a noun of that type it is a possible base for *-ship*-suffixation, and since *parent* denotes permanent properties of individuals it is not a possible base for *-ship*-suffixation. Therefore, Aronoff & Cho (2001: 169) propose the following semantic condition:

(3) $X[_N$ -ship$]_N$
Condition: X is a stage-level predicate.

They further claim that "the semantics of the base selects the specific meaning of *-ship*" (2001: 169). If a base like *friend* is a relational noun (denoting a relation between friends) the derivative with *-ship* will denote that relation. If the noun is not relational like *penman* *-ship*-suffixation is still possible although it has a meaning different from *friendship*; the derivative *penmanship* denotes the skill or art of a penman, thus showing that according to the meaning of the base the specific meaning of the suffix is chosen. A further example is *priestship* where the nominal base denotes the office of a priest and therefore the derived word also denotes the office of a priest. According to Aronoff & Cho all the different meanings found with *-ship*-formations can be reduced to one general meaning, the meanings of the individual *-ship*-formations being determined by the combination of the base and the suffix[2]. More precisely they assume

> [...] the meaning of a *ship* word selects the stage-level property that is most salient in the meaning of the base. In particular, if the base is relational, the output denotes that relation; if the base denotes someone who has a skill, the output denotes that skill; if the base denotes someone who occupies a position in a hierarchy, the output denotes that position or period of office.
>
> Aronoff & Cho (2001: 171)

Thus, the meaning of the base determines the meaning of the *-ship*-derivatives. The suffix *-ship* plays the role of a nominaliser producing states. Since the bases of these derivations are stage-level predicates predicating something of an individual at a certain time span they are arguments. And since *-ship*-derivatives are nominalisations of these predicative expressions they are also used as arguments:

(4) a. John and Bill are friends.
b. Friendship is rare.
c. John is not a good penman.
d. John acquired penmanship.

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[2] Aronoff & Cho actually talk about the combination of the base and the context, but since it is clear from their argumentation that with context they do not mean textual context they seem to mean the elements around the base, i.e., the suffix.

Coming back to the often cited observation that the suffixes *-hood*, *-dom* and *-ship* and their derivations behave similarly semantically, we do find differences that can be explained with Aronoff & Cho's assumptions. They give the following word list based on Webster's Third New International Dictionary comparing derivatives with the suffixes *-hood* and *-ship* (see Aronoff & Cho 2001: 172):

Comparison of formations with -hood and -ship	
-ship	*-hood*
apprenticeship	apprenticehood
bachelorship	bachelorhood
————	*childhood*
doctorship	doctorhood
fathership	fatherhood
————	*girlhood*
kingship	kinghood
ladyship	ladyhood
————	*manhood*
————	*motherhood*
neighborship	neighborhood
————	*parenthood*
priestship	priesthood
queenship	queenhood
————	*sisterhood*
————	*wifehood*

Table 5.1: *Comparison of formations with -hood and -ship*

The list shows that whenever a base denoting an individual-level predicate occurs there is no derivation with *-ship*. Thus, this finding corroborates Aronoff & Cho's claim that *-ship* is sensitive to the semantics of the base. However, this does not seem to be a problem for *-hood*-suffixations: the suffix occurs with stage-level predicates as well as with individual-level predicates (see the formations *childhood*, *girlhood*, etc.). This implies that the semantic restriction on the *-ship* suffix to allow only bases denoting properties of stages is part of the lexical semantics of the suffix. But how can pairs with the same base but different suffixes like *fathership* and *fatherhood* be explained? Aronoff & Cho assume that a derivation like *fathership* can occur although *father* is an individual-level predicate because the formation does not denote stable properties of individuals: *fathership* means "the condition or state of being the oldest member of a community" and thus has stage-level properties, whereas *fatherhood* means "the state or condition of being a father" denoting stable, enduring properties of individuals[3].

In the following, Aronoff & Cho's assumptions will be applied to the diachronic data exhaustively presented in chapter 4. It will be discussed 1) what is meant by the specific meaning of a suffix; 2) why we find pairs of words with the same base but different suffixes; 3) why we find gaps in lists comparing these formations.

[3] Note that Aronoff & Cho do not assume (as Lieber 2004: 160 claims) that according to their theory these formations are not possible, they only claim that when they occur they can never denote enduring properties.

As concerns the first question, it was shown in the previous chapter that the once free elements *hād*, *dōm* and (in pre-OE times) *scipe* had a number of salient meanings, some of which were similar and some of which were quite different. In OE a number of syntactic phrases with nominal modifiers and a number of compounds with nominal first elements occur, being either stage-level or individual-level predicates. What I would like to show here is that the three elements predominantly occur with their salient meanings matching the meanings of the bases. Since the salient meanings of *hād*, *dōm* and *scipe* differ, the meanings of the formations also differ. Although this is the starting point of the development of suffixes where the elements still have a different formal status, this observation (and the resulting assumption(s)) can explain the semantic differences between ModE formations with these elements[4]. In the following we will survey the semantics of the nominal and adjectival bases occurring with the three elements at the three diachronic stages OE, ME, and ENE to explain what forms the basis of Aronoff & Cho's observations made for ModE.
We will start with the nominal bases found in OE, presented in Table 5.2[5] (p. 170). Since there is no consensus whether nouns have the general property of being stage-level/individual-level predicates, and since a clear-cut classification of nouns in this respect does not exist (see Kratzer (1995), Maienborn (2003), Geist (2006)), I will define both classes based on the meanings of the nouns found in my data base. Stage-level predicates apply to a social state which is assigned to a person by society. From this state an activity can be inferred. Individual-level predicates apply to inherent properties of persons, which cannot be determined externally (e.g. from society). This difference can be illustrated with the nouns *priest* and *child*: The noun *priest* denotes the office of a person and as such a state which has been assigned to this person by society. A person can hold an office and resign an office. As soon as a person holds an office he has acquired a certain social status. In contrast, the noun *child* denotes the state of a young person or the period of time of being a child. This is an inherent property of human beings that cannot be determined externally, i.e., society cannot assign this state to somebody, it is inherently given. If the nouns occurring in OE with the elements *hād*, *dōm* and *scipe* are classified according to this distinction, we find nouns like *abbot*, *abess*, *archbishop*, *leader* etc. being classified as stage-level predicates. Nouns like *æfestnesse* and *world* also belong to this category since they determine the type of office with *hād* as head:

(5) ond þurh his bletsunge þone **æfestnesse** **hād** underfeng, þone hē longe ær wilnade.
and through his blessing the religion's office received which he long before wanted

(Bede_4:14.294.17.2968)

(6) Wæs hē sē mon in **weoruldhade** geseted ...
was he the man in world-rank placed

(Bede_4:25.342.19.3435)

Nouns like *martyr* denote a person that has been made a suffering person by society, hence it is also a stage-level predicate. Abstract nouns like *war*, *wind*, *earth* stress the active com-

[4] Martin (1906) and Dalton-Puffer (1996) claim that in ME these suffixes could be used interchangeably implying that formations built with these suffixes could not be differentiated semantically. I will claim the opposite here, namely that they are indeed different words with different meanings.

[5] The starred bases in the tables are those that occur only as genitival modifier in a syntactic phrase.

Nominal bases of formations with hād, dōm and -scipe in OE			
stage-level	**hād**	**dōm**	**scipe**
	abbot	abbot*	alderman
	abess	authority	comrade
	archbishop	Christen	enemy
	bishop	bishop	fellow
	diacon	earl	friend
	disciple	emperor	guest
	king	king	king
	priest	judge	lord
	massprіest	leader	servant
	monk	lord	town
	martyr	martyr	witnessing
	servant	ruler	society
	thief*	sec. servant	resting-place
	clergyman	servant	teaching
	nun	teacher	decree*
	pope	wind*	
	religion*	earth*	
	world	war	
	war	hell*	
		cure	
		ruling	
individual-level	child	elder	brother
	god	self	elder
	maiden	wise-man	family
	man		nation
	widow		worth
	wife		unworth
	woman		child-bearing
			marriage
			worldly-honour

Table 5.2: *Nominal bases of formations with hād, dōm and -scipe in OE*

ponent of a state: *windes dōme* in the example below, for example, denotes the power of the wind:

(7) Hwæt, þū wast gif þū þīnes scipes segl ongēan þone wind tōbrǣdest,
lo thou knowest if you thine ship's sail against the wind spreadst
þæt þū þonne lætæst eall ēower færeld tō [$_{\text{Dat}}$[$_{\text{Gen}}$ **ðæs windes**] **dōme**.
that thou then letst all your way to the wind's power
(Bo:7.16.28.256)

The noun *town* in combination with *scipe* denotes the inhabitants of a village, and hence a state at a certain point in time:

(8) & hēht ðone **tūnscipe** ealne ofslēan, & þone tūn forbernan.
and commanded the villagers all kill and the village burn
(Bede_5:11.416.25.4190)

If the two classes of nouns are compared in the table above, we see that *hād*, *dōm* and *-scipe* occur with nominal bases denoting stage-level predicates most frequently. If we compare the bases of *hād* and *dōm*, we find a number of them occurring with both elements. Let us survey the OE base *abbod*:

(9) Gif hī mid weorces geswince tō ðām swīðe ofsette bēoð, ðæt hī
if they with work's toil to that so much afflicted are that they
hwilces ēacan behōfien, stande sē ēaca on ðæs **abbodes dōme**, ðæt
whichever profit require stand the profit in the abbot's authority, that
ðonne swā sȳ forescēawod, swā ðǣr nǣfre oferfyl ne filige, …
then so be preordained as there never gluttony NEG follow
(BenR:39.63.17.783)

(10) āc þā sylfan him prafostscīre betǣhtan, þe þæne abbod tō **abbodhāde**
but the same him provostship entrusted who the abbot to abbot-rank
gecoran.
chose
(BenR:65.124.12.1197)

In the first example, (9), *abbodes* is the genitival modifier of the nominal head *dōme*, and the whole DP can be translated with 'the abbot's authority or rule'. Since this is a syntactic phrase we can assume that the semantics of both elements is transparent (and *abbodes* has a referential and a non-referential reading). Moreover, the salient meaning of *dōm* 'authority, rule' is quite transparent here. In the example in (10), the compound *abbodhād* denotes 'abbot-office'. Thus, there is a difference in meaning between the phrase with *dōm* and the compound with *hād* due to the salient meanings of *hād* and *dōm*. Further evidence for this assumption is provided by the entries for *abbad-dōm* and *abbad-hād* in BT:

(11) a. *abbad-dōm*: the rule or authority of an abbot (*abbatia, abbatis jus vel auctoritas*)
b. *abbad-hād*: the state or dignity of an abbot (*abbatis dignitas*)

The same semantic contrast can be seen with further examples, here with the base *bisceop*. Note that both compounds occur in one text, shown in the example below:

(12) Sē hæfde **biscopdōm** in þære cæstre, þe is hāten Ferentis, & þone
he had bishop-authority in the fort that is called F. and the
biscophād mid his þēnunge & mid his þēawum rihtlīce gefylde.
bishop-rank with his service and with his moral properly fulfilled
(GD_1_[C]:9.56.16.631,GD_1_[C]:9.56.16.632)

Two further examples for phrases with *dōm* as nominal head with the salient meaning 'rule or authority' implied illustrate this:

(13) sȳn hī **bisceopes dōme** scyldig.
be they bishop's sentence liable
"let them be liable to the bishop's sentence"
(Bd. 4,5; S. 573,I., from BT)

(14) Hīe noldon hyra **þēodnes dōm** þafigan.
they not-wanted their lord's decree obey

(Cd. 181, from BT)

In (13) *dōm* has the meaning 'sentence' (in the sense of 'punishment', see footnote), and in (14) it has the meaning 'decree'. Both meanings imply an authority having the power to judge[6]. In both cases the result of such authority or power to judge is denoted and thus we could say that they are metonymic shifts from the salient meaning of *dōm*. What all these examples crucially show is that this salient meaning determines the meaning of phrasal constructions of the type genitival modifier + *dōm* and N+*dōm* compounds. Since the same applies to formations with the other two elements, *hād* and *-scipe*, the different meanings of formations with these elements and the same base can be explained. It further shows that at this stage it does not suffice to assume one meaning 'state, condition of N' for these formations. The salient meaning of *dōm* and *hād* with the base *bisceop* is also found in the entries for the compounds in BT:

(15) a. *bisceop-dōm*: a bishop's doom, excommunication (*episcopi iudicium, excommunicatio*); the province of a bishop (*episcopi provincia*)
b. *bisceop-hād*: the office or state of a bishop, the episcopate (*episcopi provincia*)

The question is why the formation *bisceopscipe* does not occur: a comparison of the bases with this element and the bases with *hād* and *dōm* reveal that *-scipe* does occur with bases denoting offices but to a lesser degree; its salient meaning denoting the result of an activity does not match the meaning 'office' or 'authority' as well as *hād* and *dōm* do. Those formations that have occurred (*abbotship*, see OED) are rare or obsolete today. It may denote the dignity of a king or an alderman because the social status expressed is partly inherited and differs from the office expressed by *abbot* or *priest*. This difference may explain why a formation like *cynescipe* "kingship" is possible.

Next, let us compare formations with *dōm* and *-scipe*:

(16) Ealle wē sculon ǣnne God lufian and weorðian and ǣnne crīstendom
all we shall one god love and honour and one Christian-law
georne healdan and ǣlcne **hǣþendōm** mid ealre mihte āwyrpan.
eagerly practise and each heathen-law with all might reject

(WPol_2.1.1_[Jost]:221.313)

The context in (16) shows that *hǣþendōm* stands in opposition to *crīstendōm* (see also chapter 4.3). The latter formation occurs with the quantifier *ǣnne* "one, singular", the former formation with the quantifier *ǣlcne* "each" implying that one Christendom exists whereas more than one heathendom seems to exist in the world of the scribe. Moreover, the predicate *healdan* denotes the activity of practising something, here clearly the Christian religion. Since religion denotes a system of religious attitudes, beliefs, and practices it is clear why the bases *crīsten* (N) and *hǣþen* (A) occur with *dōm*: it is based on rules or laws according to

[6] See the entries for "sentence" and "decree" for example in Webster's: "sentence" = judgement: a: one formally pronounced by a court or judge in a criminal proceeding and specifying the punishment to be inflicted upon the convict; b: the punishment so imposed; "decree" = 1: an order usually having the force of law.

which Christians and heathens practise their religion and therefore *dōm* matches the meaning of the bases quite well. We also see that the difference in category does not play a role here since both bases refer to persons. If *hǣþendōm* and *hǣðenscipe* are compared, the following contrast arises:

(17) and þā Philisteos$_{\text{Acc}}$ ācwealde for þām þe hī hæfdon þæt hālige
and the Philistines killed because they had the holy
scrīn þǣr on heora **hǣþenscipe** swylce hȳ hit habban woldon
shrine there in their heathen-state just-as they it have wanted
(ÆHom_22:236.3411)

(18) and mancynne$_{\text{Dat}}$ forbēad, þæt hī nǣnne **hǣþenscype** habban ne
and mankind forbode that they not-one heathen-state have NEG
mōstan, ac sceolde ēfre wurþian þone sōþan God, sē þe āna is
must but should ever honour the true God who (the) one is
ælmihtig scyppend.
almighty creator
(ÆLet_2_[Wulfstan_1]:10.20)

First, note that in (17) an object *þæt hālige scrīn* "the holy shrine" is described as being positioned somewhere, namely *þǣr* "there" (local adverb) *on (heora)* "in (their)" (preposition) *hǣðenscipe*. Hence, the formation denotes a place created by heathens (probably an object reading of *idolatry* describes the reading of the formation best). In (18) *hǣþenscype* is quantified by *nǣnne* "not one" and the predicate "have" denotes a situation where "they" should not have the state of heathens. If we compare these readings with the readings for *hǣþendōm* above, we find clear differences. The question again is why the formation *hǣðenhād* does not exist: in the table above we see that *hād* only occurs with nominal bases that denote either an office or an enduring state (individual-level predicates). Since *hǣþen* cannot be classified as such it cannot occur with *hād*; further evidence for this assumption is the lack of *crīstenhād*.

We have seen so far that the OE phrases and formations discussed have different meanings; what this means is that we may find the same bases with the elements *dōm* and *-scipe* but the salient meaning of these elements differ which results in formations with different meanings. We also find cases where all three elements occur with the same base, e.g., with the nominal base *cyne* 'king':

(19) Ic ÆLFRED geofendum Criste mid **cynehādes** mærnysse geweorðod, habbe
I A. giving Christ with king-dignity's honour honoured have
gearolīce ongyten & þurh hāligra bōca gesægene oft gehyred, ...
readily learned and through holy books prophecy often heard
(GDPref_1_[C]:1.1.2)

Cynehād in example (19) denotes 'kingly state or dignity', and this state is granted by God according to the context. Thus, it is not an office or position assigned by a human being in the same sense as *bisceophād* is. But both nouns denote a stage-level predicate and match the semantics of *hād*. The example below includes *cynedōm*:

(20) Gē habbað nū gehyrod hū ðā hālgan cyningas heora **cynedōm** forsawon
you have now heard how the holy kings their king-rule rejected
for Cristes gelēafan and heora āgen līf forlēton for hine.
for Christ's belief and their own life abandoned for him
(ÆLS_[Abdon_and_Sennes]:76.4771)

The difference between *cynehād* and *cynedōm* is that, as discussed above, *dōm* has the salient meaning 'rule, authority' that is also part of the formation *cynedōm*. Finally, we also find formations with *-scipe*:

(21) Ne mæg nān eorðlic cyning cynelic lybban. buton hē hæbbe ðegenas. &
NEG may no earthly king kingly live but he have servants and
swā gelōgodne hired swā his **cynescipe** gerīsan mæge.
so arranged household as his king-dignity rise may

(ÆCHom_I,_8_[App]:533.3.1562)

In (21) *cynescipe* occurs with a possessive and the predicate "to rise" and denotes kingly power resulting from kingly dignity. In the next example a further meaning occurs:

(22) Ealra manna hlāford geond þas wīdan worulde, wē biddað þīnne
all men's lord throughout the wide world we bid thine
cynescipe þæt þū nān ðingc ne bēo drēorig oððe sārig for ðan
majesty that thou no thing NEG be cruel or sorrowful for the
geongan cnihton, …
young warrior

(LS_34_[SevenSleepers]:254.195)

Here, *cynescipe* is used as a title which can be seen by the fact that it is preceded by the 2nd person Sg. possessive and the predicate "bid". This is a metonymic shift arising from the salient meaning of *-scipe* 'dignity'. A further meaning 'skill, art' is added in the course of time, and here again we see why this special meaning could arise with *-scipe* but not with the other two elements: if something is the result of being created, it can be assumed that the creator has special skills. This meaning does not occur with *hād* and *dōm* because they have salient meanings that would not allow this metonymic shift.

To summarise so far, nominal bases occurring with *hād* and *dōm* are bases of the stage-level predicate type to a higher degree than *-scipe*; individual-level predicates as bases are mostly found with *hād* and *-scipe*. Formations with stage-level predicates + *hād* denote the office, rank of a person, formations with stage-level predicates + *dōm* denote the authority, rule of a person or thing, and formations with stage-level predicates + *-scipe* denote the result of creating sth. (state). As concerns formations with bases of the type individual-level predicate, those with *hād* are motivated by the salient meaning 'state', thus denoting enduring states. Those with *dōm* are motivated by the salient meaning 'authority' and thus denote the authority of these persons. Finally, formations with *-scipe* are mainly motivated by the meaning 'collectivity', which is a metonymic shift and shows that at that time *-scipe* has proceeded furthest in development into a suffix, i.e. it has suffixal status (see 4.4). The latter observation also explains why the OE suffixal element *-ræden* predominantly occurs with the same bases as *--scipe*, since both have a collective reading (see below).

The next period we turn to now is ME where syntactic phrases with the three elements no longer occur but only compounds or formations that seem to have derivational status (at least for *-shipe* we have to assume that it has suffixal status). The nominal bases of these morphological complexes are given in Table 5.3 (p. 175). A number of observations can be made here: first, all elements predominantly occur with stage-level predicates, only *-hēde* also shows a number of individual-level predicates, *-shipe* shows just a few forms. Second,

Nominal bases of formations with -hēde, dōm and -shipe in ME			
stage-level	**-hēde**	**dōm**	**-shipe**
	clergyman	Christen	bailiff
	leper	earl	fellow
	monk	king	friend
	prince	lord	glad
		martyr	lady
		pope	neighbour
		servant	prefecture
		whore	town
		cure	harm
		wealth	
		dominion	
individual-level	brother		conscience
	child		worshipe
	father		
	ignorance		
	folly		
	maiden		
	mother		
	spouse		
	wedlock		
	widow		
	honour		

Table 5.3: *Nominal bases of formations with -hēde, dōm and -shipe in ME*

we find a number of bases denoting abstract entities (*glad 'lust', shend 'harm', gewitt 'conscience'*), apart from the bases that predominantly denote persons or concrete entities. This mainly applies to *-hēde* and *-shipe*. Let us first turn to the first observation. In the corpus, the element *-shipe* shows just few bases of the type individual-level predicate (*gewittshipe* 'conscience'). Also note that there is the formation *worðshiphēde* which shows two morphological (derivational) processes which might imply that the speaker analysed *-hēde* as suffixal element. There are other cues leading to this assumption like the fact that bases denoting abstract entities start to occur more frequently (see also the discussion on adjectival bases below).

If we go back again to Table 5.2 (p. 170) with all OE nominal bases we see that those individual-level predicates occurring with *-scipe* either denote a collectivity of persons or an abstract entity. However, it was shown above that *-scipe* formations never denoted enduring properties of individuals which are inherent in nominals like *child, mother* or *father*, although bases of that type occurred with the element and although a salient meaning of *-scipe* is 'state, condition'. In OE there is one instance of *gebrōðorscipe*[7]:

[7] For the motivation to coin these formations see the explanation from Messing for OE *winescipe* in chapter 4.4.

(23) Ðyllicne **gebrōðorscipe**, cwæð Orosius, hīe heoldon him betwēonum, þe ān
such brothership said O. they held them between who in
ānum hīerede wǣron āfedde & getȳde.
one household were fed and taught

(Or_3:11.82.32.1664)

What is striking is that the *ge-* prefix[8] which originally was a preposition with the meaning 'with' is added to denote a collective sense (*ge- + brōðor*), also found in formations like *gefērscipe* (*ge- + fer*) 'fellowship' (see also chapter 4.4). Thus, *gebrōðorscipe* denoted only a spiritual but never a natural brotherhood (recall that the same contrast is found for ModE *fatherhood* and *fathership*). In ME this formation is lost, and the same base occurs with *-hēde*:

(24) Huanne me bit þe **broþerhēde** / and þe uelagrede / and part / and
when me begs the brother-order and the fellow-order and part and
rigt / ine alle þe guodes of þe house.
right in all the goods of the house

(AYENBI,110.2136)

From this context it seems that *broþerhēde* denotes a religious order. Nevertheless the formation can also denote natural brotherhood[9]:

(25) In thre thingis my spirit is pleassit … the accord in **brethereth**, loue of
in three things my spirit is pleased the accord in brotherhood love of
negheboris, And man and his wif well togeddir asse ntyng.
neighbours and man and his wife well together as nothing

(Yonge SSecr.(Lamb 633), 192/14)

as well as the action befitting a brother (see also MED):

(26) As tochyng my brother Richard, y can not assigne no thyng of my good
as concerns my brother R. I can not assign no thing of my good
recompensible to his good **brotherhēde**.
recompensible to his good brotherhood

(EEWills, 133/11)

If we also take into consideration the findings from the MED, another formation with an individual-level predicate as base occurs, *mōdershipe*:

(27) Rytgh reverent and worchypfull moder, I recomaund me on to your good
right reverent and worshipful mother I recommend me on to your good
moderchypp, besechyng yow to geve me yowr dayly benediccyon.
mothership beseeching you to give me your daily benefaction

(Paston, 5.319)

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[8] This information is given in BT.

[9] The MED entry for *-hēde* notes that in *broþerhēde* and *neighborhēde* the suffix replaced the OE element *ræden* which also occurred with these bases, predominantly denoting collectivity. Thus, it could be assumed that *-hēde* gained this reading from replacing the formation with *-rēden*. But see also chapter 6.

In this example *mōdershipe* denotes the good will or affection of a mother. Compare this formation with the following two examples displaying *mōderhēde*:

(28) The fyrste es, þat Ihesu Criste, Goddes Sone of heuen, was sothefastely
the first is that J. C. God's son of heaven was truly
conceyuede of þe maden Marie, and tuke flesche and blude, and become
conceived of the maiden M. and took flesh and blood and became
man thurghe þe myghte and þe strenghe of þe Haly Gaste, with-owtten
man through the might and the strength of the holy ghost without
any merryng of hir **modirhēde**, with-owtten any mynynge of hir
any impediment of her motherhood without any leave-taking of her
maydenhede.
maidenhood

(GAYTRY,4.32)

(29) hit bytokenyth also our ladyys **modyrhōde** and maydynhede, lightnet wyth
it betokens also our lady's motherhood and maidenhood, lightened with
þe fyre of loue;
the fire of love

(MIRK,60.1641)

In these two examples *mōderhēde* clearly denotes the state of being a mother referred to the virgin Mary, but according to the MED it could also denote the state or fact of being a mother, the addressing of one's mother and motherly love, maternal feeling and care. Moreover, this formation occurs with a higher frequency (10) than the one with *-shipe* (2). The salient meaning of both *-hēde* and *-shipe* allows these formations to occur, and this is in line with what Aronoff & Cho observed for ModE. The crucial point is that when both formations occur, they never denote the same. This can nicely be seen with a ModE example from the OED where *mothership* denotes the office of a mother:

(30) Even had self-defence impelled Claire to abandon her **mothership**.

(1905, Blackw.Mag.Feb 239/1)

As we move on, we will see that it is the lexical semantics of *-hēde* and *-shipe* (and also of *dōm*) that allows (or does not allow) for the occurrence of these formations and that differences in meaning are due to the semantic sensitivity of these elements. All the bases classified as individual-level predicates occurring with *-hēde* denote enduring properties and since this implies a long duration of time (which becomes even more obvious if we accept Aronoff & Cho's distinction between left-side and right-side individual-level predicates) it is not surprising that a metonymic shift to 'time' arises, e.g., *childhēde* denoting the stage of life from birth to puberty:

(31) And þis Edward in his **childehōde** louede al-myghty God,
and this E. in his childhood loved almighty God

(BRUT3,128.3864)

As concerns formations with *-shipe* in ME, bases denoting dignity (*bailiff, lady, prefecture*), collectivity (*fellow, friend, town, neighbour*) and some bases denoting abstract states occur.

The meanings ‘dignity’ and ‘collectivity’ are salient meanings, i.e., bases denoting these meanings can be found in OE, too. The latter meaning seems to be new, since bases like *glad* or *shend* start to occur with *-shipe* in ME:

(32) & of his bloode þan shal þe goote lese miche of his lande til at þe
and of his blood then shall the sinner lose much of his land till at the
tyme þat **shendeship** shal him ouer-comen;
time that harm shall him overcome

(BRUT3,73.2216)

(33) al þe hurt were forgeten for þe **gledschipe**.
all the hurt were forgotten because-of the gladness

(ANCRIW,II.101.1229)

(34) þatt all þin herrte beo þwerrt ut att tin **wittshipe** clene,
that all thine heart be through out at thine conscience clean

(ORM,I,197.1620)

In all three examples the formations with *-shipe* denote an abstract state since the bases are of exactly that type. We have seen in chapter 4, that this type of formation has not survived. The element *-hēde* also starts to occur with nominal bases that do not refer to persons directly. Examples of formations with these bases are given below:

(35) And for one grutched ayenst theyr mayster Moyses, the whiche was
and because one protested against their master Moses, the which was
but Pedagogus, the chosen woman moost accepte, Maria, Aaron’s sister,
only Pedagogus the chosen woman mostly accepted Maria Aaron’s sister
was smytten of God with the infyrmyte of **leprehōde**.
was struck by God with the disease of leperhood

(INNOCE,8.124)

From the context it is clear that *leprehōde* refers to a disease and that a person was struck with that disease by God. Therefore, the formation can be classified as stage-level predicate. Moreover, the meaning of *lepre* denotes the disease leprosy and hence an abstract state. Therefore, the formation *leprehōde* denotes ‘the state of having leprosy’, more abstract ‘the state of N’. The following two examples also show this meaning of *-hēde*:

(36) Zuych folie / is wel y-cleped / **onwythēde**.
such folly is well called foolishness

(AYENBI,19.279)

(37) Gif he spekð of sennes and of **sothādes**, ðanne hit is alswo godd sade
if he speaks of sins and of follies then it is as God said
him self:
himself

(VICES1,101.1207)

In the first example the clausal context does not help to decide whether *onwythēde* is of the stage-level or individual-level type; however, the following context defines *onwythēde* as *zuiche vices* “such vices” of *þe greate proude men* “of the great proud men”

(AYENBI,19.280) and as an *ontreuþe þet comþ of prede* "a sin" (or false religious belief; AYENBI,19.281). As such it is an enduring property of men and can be classified as an individual-level predicate. The other formation, *sothādes*, occurs in coordination with "sins", and in the following example

(38) Đe wise woreld-mann he halt michel **sothāde** …
the wise world-man he is-impaired-by much foolishness

(VICES1,67.749)

the context makes it clear that it is an enduring property of men that is denoted here, so that we can say that it is an individual-level predicate.

The element *dōme* shows only stage-level predicates, and most bases denote persons. In the example below the salient meaning 'authority' of *dōme* is still transparent: *þreldōme* denotes the power of the devil to enslave men:

(39) þet god heþ yvryd be grace / and be uirtue / uram þe **þreldōme** of þe dyeule and of zenne: …
that god has freed by grace and by virtue from the thraldōm of the devil and of sin

(AYENBI,86.1682)

Hōrdōm in the example below denotes adultery, the salient meaning 'authority' is not transparent; it denotes 'the state of being a whore'. Nevertheless, there is also the phrase *to don hōrdōm* "to commit adultery" having an event reading that could be paralleled with the OE *don dōm*[10]).

(40) Whanne þe duke and Gunnora hadde i-lyved longe in **hōrdōm** þe peple spak moche þerof,
when the duke and G. had lived long in adultery the people spoke much thereof

(POLYCH,VI,451.3305)

The formation *lǣchedōm* used to have the transparent meaning 'authority of a physician' but is lexicalised in the diachronic sense of the word (at the latest) in ME:

(41) Wiþþ heofennlike **lǣchedōm** to læchenn Tobess eghne.
with heavenly remedy to cure T.s fear

(ORM,I,62.565)

The following example shows the formation *richedōm* which used to denote 'the territory of authority'; in ME it can also refer to wealth or precious things (in the plural) which suggests that it is also a lexicalised formation.

(42) hwuch eise i þe **rīchedōm** þþ þeos leafdis habbeð. Hu muche mahte of inker streon a-wakenin.
which is in the wealth that this ladies have how much might of your generation awake

(HALI,128.18)

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[10] Also note that in the MED another meaning of this formation is given: 'deviation from acceptable religious practice' which reveals the link to the salient meanings of *dōme*.

It will be shown below that in ENE *-hood* is the only element (among the three elements investigated here) that still occurs with individual-level nominal bases and that the other two elements only occur with stage-level predicates.

Nominal bases of formations with -hood, -dom and -ship in ENE			
stage-level	**-hood**	**-dom**	**-ship**
	knight	Christen	apostle
	priest	earl	captain
	neighbour	king	chancellor
		knight	fellow
		martyr	friend
		whore	horseman
			king
			lady
			lord
			master
			mistress
			partner
			president
			pretor
			provost
			saint
			scholar
			secretary
			truant
			warden
			workman
			town
			court
			man
individual-level	brother		
	child		
	god		
	man		
	widow		

Table 5.4: *Nominal bases of formations with -hood, -dom and -ship in ENE*

As can easily be seen from Table 5.4 *-ship* is the element that occurs with bases of the stage-level type most frequently in the corpus. Apart from the meaning 'collectivity' (e.g., the lexicalised *township*) most of the bases refer to persons and denote an office, dignity or skill. Some examples are given below:

(43) … That hee may take part of this ministerie and **Apostleship**, from
the he may take part of this service and apostle-position from
which Iudas by transgression fell, …
which I. by transgression fell

(AUTHNEW,I,20A.758)

The first nominal base occurring under *-ship* in the table is *apostle*. As illustrated with the example above it denotes the office of an apostle (see also Richard Mulcaster, "The First Part of the Elementary" (1582)). Interestingly, the formation *apostlehood* also existed and denoted the office of an apostle, but became obsolete, according to the OED, in 1483; the first occurrence of *apostleship* is dated 1526. This could imply that *-ship* started to occur with the base because *-hood* no longer denoted the office of a person but rather a state or condition of N. In ENE, on the other hand, the suffix *-ship* occurs quite frequently with this meaning and often with the other two meanings 'dignity' and 'skill'.

(44) I never heard that the King took away any thing from you, but the
I never heard that the king took away any thing from you but the
Captainship of the Guard, which he did with very good reason, …
captainship of the guard which he did with very good reason

(RALEIGH,1,225.364)

In this example *captainship* denotes the office of a captain but it could also denote the dignity of a captain (see OED). This also applies to *presidentship*, *lordship*, *ladyship* or *mastership*. The latter one is found in the corpus with the following meanings:

(45) And in conclusion commyng in to the chamber wher hys **Mastershyp** sat
and in the-end coming in to the chamber where his mastership sat
with Mr. Attorney, Mr. Soliciter, Mr. Bedyll and Mr. Doctour Tregonnell,
with Mr. A., Mr. S. Mr. B. and Mr. Dr. T.

(MORELET2,551.100)

(46) 18. Th'erl of Penbroke surrendered his **mastership** of the horse, wich I
18th earl of P. surrendered his mastership of the horse which I
bestowed on th'erl of Warwike.
bestowed on the-earl of W.

(EDWARD,409.224)

In (45), *mastership* denotes the meaning 'dignity' and in the second example it denotes the meaning 'skill'. The latter meaning is also found with *courtship* and *horsemanship*:

(47) The king, without more **courtship**, bad her throw off her mantle, and
the king without more courtship asked her throw off her coat and
come to his arms.
come to his arms

(BEHN,159.50)

(48) The end of **Hors-manshippe**.
the end of horsemanship

(MARKHAM,1,86.112)

Although example (48) does not tell much because of the sparse context we can determine its meaning if we consult lexicons like John Florio's "A World of Words" (1598). Here we find the following definition: 'the arte of ryding or horsemanship'. It seems to be the case that a number of nominal bases containing the noun *man*, as in *horseman* and *workman*, denote a skill if they are attached to *-ship*:

(49) In S. Iacobs and in Saint Katherines Churches there is in one of them a
In S. I. and in S. K's churches there is in one of them a
Pulpit of Alablaster, and in the other a paire of such Organs, which for
pulpit of alabaster and in the other a pair of such organs which for
worth and **workmanship** are vnparaleld in Christendome, ...
worth and workmanship are unparalleled in Christendom

(JOTAYLOR,3,84.C1.223)

There also used to be the formation *manship* (OE *manscipe*) with the meanings 'honour, dignity, manliness', but this formation is obsolete today (see OED). Instead, we find the suffix *-manship* (classified as such in the OED) attaching to nominal bases and denoting 'a skill in a subject or activity especially now so deployed as to disconcert a rival or opponent'. It is further noted that this development was probably instantiated by the formation *gamesmanship* 'skill in winning games'. It becomes obvious that in ENE a salient meaning of *-ship* is 'skill' apart from 'office' and 'dignity' (see the comment above on *scholarship*). The ENE formation *manship* shows the latter meaning (in all instances in the corpus):

(50) But in spite of Custance, which hath hym weried, Let vs see his **mashyp**
but in spite of C. which has him worried let us see his manship
solomnely buried.
solemnly buried

(UDALL,.210)

In contrast, the formation *manhood* denotes the meaning 'state or condition of being human, humanity, manliness':

(51) I am abashed to se how he overweeneth hym self in comparison of
I am abashed to see how he overestimates himself in comparison of
Lewys Otmore who is both for surgery, for personage, for **manhōd** and
L. O. who is both for surgery, for personage, for manliness and
for wysdom a great deal beyond hym and for modesty withowt comparison.
for wisdom a great deal beyond him and for modesty without comparison

(MADOX,120.97)

Again we see that although formations with the same base attached to *-ship* and *-hood* exist they denote different meanings which are based on the salient meanings of the once free morphemes. This also applies to the meanings 'skill' and 'dignity' (in the form of a title) that arose due to metonymic shifts of the salient meanings of the free elements.

As mentioned above, Table 5.4 shows that only *-hood* occurs with individual-level predicates. However, the OED states that the formation *childship* exists although it is rare in ModE. The following meanings are given: 'Relationship of child to parent, attainment of this state, adoption, filial relation'. One example with the latter meaning is:

(52) It attaineth not the divine **Childship**, or Filiation.
It attains not the divine childship, or filiation

(1662 J. Sparrow tr. Behmen's Rem. Wks., Def. agst. Rickter 19)

The formation *childhood* occurs quite frequently in the corpus with the meaning 'state or stage of life of a child':

(53) And here I conclude to speke any more of poetis, necessary for the
and here I conclude to speak any more of poets necessary for the
childehōde of a gentill man: for as moche as these, I doubt nat, will
childhood of a gentleman for as much as these I doubt not will
suffice untill he passe the age of xiii yeres. In which time **childhōde**
suffice until he passes the age of 13 years in which time childhood
declineth, and reason waxeth rype, and deprehendeth thinges with a more
declines and reason grows ripe and understands things with a more
constant iugement.
constant judgement

(ELYOT,40.55)

(54) And nat without a necessary cause princis were in their **childhōde** so
and not without a necessary cause princes were in their childhood so
instructed:
instructed

(ELYOT,29.1)

Although both formations occur, *childship* never denotes 'the period of time when somebody is a child', and this is because *-ship* is semantically restricted in this respect. It can only occur with a specific meaning like 'adoption' or 'filiation' but it cannot denote the state of a child or the period of time of being a child. This observation further corroborates Aronoff & Cho's assumption.

What the meticulous comparisons of the different formations show is that so-called rivals like, e.g., *kinghood*, *kingdom* and *kingship* are actually no rivals at all since they denote different things. This claim includes the diachronic perspective, and as such it is not exactly the same claim made by Aronoff & Cho, but corroborates it nevertheless. What I would like to point out here is that the rivalry we see today is a diachronic reflex of the development of the three elements under investigation and that the notion of "suffix" from a synchronic point of view must be used with caution since it can be shown that what is called a suffix today need not have been one in former times. Take again the examples *kinghood*, *kingdom* and *kingship*: all of them were built in OE and ME for the first time with quite different meanings, and in the course of time were lexicalised with these meanings. Moreover, at these periods of time, especially in ME, the elements gradually gained suffixal status, evidence of which are examples showing that they still functioned as heads of compounds. Thus, we cannot explain these formations by assuming that they all denote 'state of N' because at that time they had different meanings. When we investigate the productivity or the nature of such a suffix today we collect all formations found with that element and treat all these formations alike, neglecting the fact that some of these formations just look like derivations although they are in fact something else, namely lexicalised compounds. It could be argued that this is just a formal difference that cannot be seen on the surface anyway but this formal difference has semantic consequences. Since the three elements used to be part of compounds and since free morphemes have less generalised meanings than suffixes it is no surprise that *kinghood* and *kingship* denote different things. This difference can be explained with an assumption like Aronoff & Cho's but the reason why these formations coexist in the first place can only be explained with the development of these elements, i.e., taking the diachronic perspective into account. Thus, among the set of all formations with *-ship* in ModE we

would have to make a distinction between formations that are completely lexicalised (and being stored as such), and formations that are productively and transparently built (and being decomposed). As said above, synchronically we might explain selectional restrictions of suffixes with the distinction between stage-level and individual-level bases but the violation of these restrictions (the occurrence of *kingship* for example) can only be plausibly explained if we take into account that this formation is lexicalised and that *-ship* used to have a number of salient meanings that are no longer available to productively build formations with the ModE suffix *-ship*. Of course, I am not claiming that a speaker consciously knows about the origins of a suffix when he uses it, all meanings that have developed in the course of time are part of the lexical-semantic representation of a suffix, and the suffix is sensitive to the meaning of the base. In chapter 6 we will come back to this assumption and we will discuss how this can be integrated into a lexical-semantic analysis of these elements.

So far we have examined the semantics of the nominal bases occurring with the three elements under investigation. Now we will turn to the adjectival bases occurring with the three elements since their occurrence and subsequent loss in the course of time shed light on the nature of the suffixation with *-hood*, *-dom* and *-ship*. First, let us take a look at the bases in OE given in Table 5.5 (p. 185)[11][12]:
In line with the assumptions made for the classification of nouns, I will define the adjectives found as either being stage-level or individual-level predicates. Note that I assume that this property of adjectives is defined in relation to the head noun, which means that it depends on the meaning of the nouns whether the adjectives are stage-level or individual-level predicates. Although all adjectives were investigated in their textual context I will only give some examples to illustrate why I classified them the way I did.

First, adjectives occurring with *hād* and being classified as stage-level predicates all modify an office denoted by *hād*. Some of them are denominal adjectives denoting persons like *munuclīc* 'monkly' and thus they refer to a person holding an office. As such they resemble the phrases with nominal modifier (*munuchād* etc.), i.e., they are relational. The following examples illustrates this:

(55) ðætte Cynred Mercna cyning & Offa Eastseaxna cyning on **munuclīcum**
that C. Mercians' king and O. Eastsaxons' king in monkly
hādum tō Rōme becōm, & þær heora līf geendode:
office to Rome came and there their life ended

(BedeHead:5.24.12.137)

(56) siððan hē hī tō ðām **apostolīcan hāde** gecēas. swā swā Petrus tō
afterwards he them to the apostolic order chose just as P. to
Drihtne gecwæð;
lord said

(ÆCHom_II,_6:57.158.1152)

Further, adjectives like *hēah* 'high' or *clǣn* 'pure' denote qualities that refer to an office or to a person holding that office:

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[11] I intentionally use forms like "monkly" etc. in the table (and not "monastic") to show that many of the adjectives are relational including a noun.

[12] The starred adjectives are those that occur without agreement with the head noun and thus function as the first member of compounds.

Adjectival bases of formations with hād, dōm and -scipe in OE			
stage-level	**hād**	**dōm**	**-scipe**
	apostolic	deceived	foolish
	churchly	fleeing	worthless
	kingly	poor	perverse
	monkly	heathen	careless
	laic		fierce*
	equal*		gay*
	high/sublime*		loyal
	wise		wise
	consecrated		intimate*
	religious		miserly*
	secular		common
individual-level	womanly	secular	bold
	manly*	severe	quick
	wicked*	mild	cowardly
	consubstantial	unjust	cunning
	one	dreadful	
	three	foolish*	
	humble	just	
	pure	justest	
	weak	imminent	
	infirm	universal	
		spiritual	
		eternal*	
		wise	
		holy	
		last	
		learned*	
		worldly	
		powerful	
		severe	
		certain	
		celestial	
		great	
		hard	
		hidden	
		free*	

Table 5.5: *Adjectival bases of formations with hād, dōm and -scipe in OE*

(57) ðā ðe mon furðor lǣran wille & tō **hīeran hāde** dōn wille.
who man further teach want and to higher rank take want
(CPLetWærf:49.30)

(58) Ac seðe ǣr hæfde him ān clǣne wīf, sē wǣre gecoren tō **þām**
but he who before hād himself a pure wife he were chosen to the
clǣnan hāde, swā swā sē apostol Paulus on his pistole āwrāt.
pure office just as the apostle P. on his epistle wrote

(ÆLet_1_[Wulfsige_Xa]:25.29)

As noted in chapter 4.2, *clǣnan* acts as relational adjective here since it denotes the office of pure persons. It was assumed above that these examples show the link between two meanings of *hād*: the meaning denoting an office and the meaning where a property is denoted. This also applies to *wærlīces* in the example below:

(59) Hwæt ðā Eugenia sēo æþele fæmne cwæð þæt hēo wolde … and
truly then E. the noble woman said that she wanted and
forðȳ underfænge æt fruman þā gyrlan **wærl īces hādes** and wurde
therefore receive at first the honour wise office and was
geefsōd.
clipped

(ÆLS_[Eugenia]:227.325)

Apart from these stage-level adjectives there are a number of denominal adjectives denoting enduring properties of persons like *wīflīc*, and that is why they are analysed as being individual-level predicates:

(60) þā hī ðā onfundon þæt hēo wæs wīfhādes man, þā wuldrodan
when they then found-out that she was woman-state person then praised
hī on God sē þe on þām **wīflīcan** and **tȳdran hāde** swilce wundra
they in god who in the womanly and weak state such wonders
wyrcað.
worked

(LS_7_[Euphr]:318.336)

There are some that denote enduring entities and enduring properties of human beings (the latter meaning is found with *tydran hāde* in the example above):

(61) ond Ānnesse in þāre þrignesse, þæt is ǣnne God in þrēom āstondnessum
and oneness in the threeness that is one god in three substances
oðþo **hādum efenspēdelecum** efenlīces wuldres & āre.
or entities consubstantial even glory and fame

(Bede_4:19.312.2.3148)

(62) Ono nū þæt wīf wel geþyrstgade, þætte Drihtnes hrægle in āðle
if now the wife well dared that Lord's clothing in infirmity
geseted gehrān, þætte ānum **untrumum hade** wæs forgifen,
set touched that one ill manner was forgiven

(Bede_1:16.78.27.725)

With the element *dōm* we a completely different picture emerges: almost all adjectives given in the table modify 'judgement' denoted by *dōm*, i.e., they define the kind of judgement, sentence, decree (in most cases a religious, spiritual judgement), whether a judgement is just,

wise, mild, etc. Since judgements are judicial decisions with unchangeable properties (they may have the property of being wise, and this property cannot be changed), the adjectives modifying these judgements are individual-level predicates. Some examples are given below:

(63) Þǣr bēoð ealle gelīce, ge sē hlāford ge sē ðēowa, sē rīca and
there are all equal both the lord and the handmaiden the rich and
sē hēana, on **þām rihtan dōme**, …
the poor on the just judgement

(ÆHom_11:400.1694)

(64) wiccecræft and wiglung and **þā wōgan dōmas**, …
witchcraft and sorcery and the bad judgements

(ÆHom_17:72.2400)

This also applies to *wīsdōm* and *frēodōm* in OE with a still transparent meaning. Both formations occurred with such a high frequency that they quickly became lexicalised elements with a non-transparent meaning.

(65) Ðurh cyninges **wīsdōm** folc wyrð gesǣlig, gesundful and
through king's wise-judgement people become happy, sound and
sigefæst.
triumphant

(WPol_2.1.2_[Jost]:11.13)

(66) ond Bretta ēac swelce micel dǣl **frēodōm** onfengon.
and Briton's likewise such great part free-authority received

(Bede_4:27.358.13.3601)

Apart from these formations adjectives (and one verbal base) denoting temporary states occur as well as some denoting the resulting state of an act (which is still quite transparent for the examples (68) and (69), the latter one shows a verbal base):

(67) Ne þū ne wanda on **þerfan dōme**.
NEG you not flinch in poor condition

(Exod:23.6.3305)

(68) and hæfð þone wurðmynt þe sē wælhrēowa forlēas ðurh his āgenne
and has the honour that the cruel abandoned through his own
swicdōm þā ðā hē sealde his scyppend.
deceived-judgement when he sold his creator

(ÆLS[Forty_Soldiers]:279.2670)

(69) Þā nolde Iacob cȳðan hys **scædcdōm** hys swēore.
then not-wanted I. make-known his fled-from-authority his father-in-law.

(Gen:31.20.1249)

If we compare the adjectival bases of *hād* with those of *dōm* only one adjective occurs with both elements:

(70) … þæt ic nū segcan wylle, of þǣre gesægene mīnes **efenhādan** þæs
that I now say will of the speech my equal-in-state the
biscopes, …
bishops

(GD_1_[C]:5.43.20.481)

(71) **Dēm**, lā dēma, **rihtne dōm** & **emne dōm**.
Judge, o judge, right judgement and even judgement

(HomS_40.3_[ScraggVerc_10]:67.1404)

It was shown in chapter 4.2, that *efen* acts as relational adjective and denotes those persons equal in state (*hād*). In (71[13]) the adjective determines the kind of judgement that is given. Thus, it has a different status in the two examples depending on the salient meanings of *hād* and *dōm*.

In chapter 4.4, it was assumed that in OE the element *-scipe* had suffixal status since a number of formations occurred with the meaning 'state of N' and 'property of being A' (apart from the formal criteria), i.e., for these formations we find more general and more abstract meanings, and so the semantic relatedness between the original, salient meaning(s) and the general, more abstract meaning of *-scipe* is hard to determine. In chapter 3, we said that if we found a semantic difference between the free form and the bound form this would be evidence for the suffixal status of the bound form. This seems to apply to the formations with *-scipe* here, and can indeed be illustrated with a number of examples:

(72) Gȳtsung, mān, fācnu, sceamlēast, yfel gesihð, dysinessa, ofermōdignessa,
greediness evil deceit shamelessness evil vision ignorance arrogance
stuntscipe.
foolish-quality

(Mk_[WSCp]:7.21.2700)

(73) Eadmund cing, Irensid wæs geclypod for his **snellscipe**.
E. king I. was called for his quick-quality

(ChronD_[Classen-Harm]:1057.1.2088)

(74) & hēton heom secgan Brytwalana **nāhtscipe**. & þes landes
and commanded them declare B.'s worthless-quality and the land's
cysta.
goodness

(ChronE_[Plummer]:449.9.130)

(75) hā begæð unætas & oferdrynceas & **gālscype**.
he cultivates gluttony and drunkenness and lust-state

(Deut:21.18.4781)

Since *-scipe* denotes 'the state of N' in these cases the meaning of these formations are much more dependent on the context than the formations with *hād* and *dōm*. Only example (73) clearly shows a reading where *snellscipe* denotes an enduring property of king Edmund, the other formations have the tendency to denote a transient state but may also denote enduring

[13] *emne* is a variant of *efen*.

properties. This finding is in clear contrast with the findings for *hād* and *dōm* and shows that *-scipe* has a more general, abstract meaning than the other two elements.

Apart from the semantics we can observe that if these formations are compared with the formations with *hād* and *dōm* they all occur without agreement and as one unit. In contrast, most of the adjectives found with *hād* and *dōm* still have a free status and show agreement. Moreover, many clearly show a transparent semantic relation with their heads, denoting an office (or persons for an office) or denoting kinds of judgements or authorities. Therefore, it seems to be feasible to say that the formations with *-scipe* have a status different from (most of) the formations with *hād* and *dōm*, and that is probably also why we do not find a rivalry here. In the following, we will examine whether this state of affair is still found in ME.

Table 5.6 (p. 190) gives all adjectival bases found with *-hēde*, *dōm* and *-shipe* in ME:
In this period of English we find a completely different situation: first, denominal adjectives denoting persons no longer occur, second, a plethora of this type of formations occurs, and third, all of these formations occur without agreement marking.

In chapter 4 it was shown that in ME at least *-hēde* and *-shipe* have reached suffixal status to a certain degree and that *dōm* is also on its way reaching this status. This difference between the suffixes can be illustrated with formations with adjectival bases since in most cases the salient meanings of *hād* and *-scipe* are no longer transparent resulting in the fact that they primarily denote 'the property of being A'. Due to its different behaviour, *dōm* still has a transparent meaning. This is corroborated by "rivals like" *wīshēde* and *wīsdōm*:

(76) þyse ryueres beþ holy scriptures, þat welleþ out fro þe welle of
these rivers are holy scriptures that well out from the well of
wysdōm, þat is Crist, …
wise-judgement which is Christ

(AELR3,30.129)

(77) … þet wylleþ him benyme his lhordssip / and his **wyshēde**.
that wants him deprive-of his lord-state and his wise-state

(AYENBI,68.1274)

In the corpus, *wisdōm* occurs with a high frequency (65, highest frequency for adjectival base in M2, see also chapter 4.3) whereas *wishēde* occurs only once. The former formation has many meanings (see MED) like 'discretion, prudence, or good judgement in temporal matters, spiritual insight or wisdom, practicality, common sense'. The latter formation occurs just once in the *Ayenbite of Inwyte*, a text written in 1340 by an author (Dan Michel) who was not very well-versed in English. The work is a fairly literal translation of a French work, the *Somme le Roi*. With this in mind, we might be able to explain why *wishēde* occurs only once: the author used *-hēde* as word-formation element trying to find an adequate translation for the French word. Since the salient meaning of *dōm* is still transparent, as the MED entry confirms, *wisdōm* could still denote 'a good judgement', but this meaning may not have been what the author wanted to express. The formation *wishēde* on the other hand denotes 'the state of being wise' which is a more general meaning[14] and which shows that *-hēde* has progressed further in the development than *dōm*. The example further shows that *-hēde* was available for speakers to build new words.

[14] It would be helpful to consult the original text but unfortunately up to now there is no edition available.

Adjectival bases of formations with -hēde, dōm and -shipe in ME			
stage-level	**-hēde**	**dōm**	**-shipe**
	bitter	deceitful	courageous
	blessed	hethen	deceitful
	blissful		drunken
	drunken		fast
	eager		foolish
	false		free
	fair		glad
	swift		hard
	full		heavy
	likely		high
	little		inobedient
	mellow		light
	mad		mad
	poor		naked
	rank		obscure
	raw		patient
	renown		reckless
	singular		vain
	stable		whole
	subtle		
individual-level	three	foolish	cruel
	fat	free	faithful
	fierce	holy	gentle
	even	wretched	mild
	green	wise	pure
	many	wicked	
	much		
	plenty		
	short		
	soft		
	true		
	uncunning		
	weary		
	wise		
	one		

Table 5.6: *Adjectival bases of formations with -hēde, dōm and -shipe in ME*

Another pair is *wodhēde* and *wodship* illustrated with the examples below:

(78) þe oþer / ontreuþe þet comþ of prede: is **wodhēde**.
the other untruth that comes of pride is foolish-state

(AYENBI,18.276)

(79) & ward swa wrað & swa awed; þt he al o **wodschipe** demde
and was so angry and so enraged that he all in mad-state doomed
hire to deaþe.
her to death

(MARGA,87.517)

Both formations denote a state of madness, according to the MED *wodhēde* also glossed ML (Middle Latin) *bachania* "a state of frenzy or orgy". Again, the fact that the author of a text decided to use this element to find a translation for the ML word shows that it had word-forming status. The formation with *-shipe* already occurred in OE denoting 'the result of an act of folly'. The formation *wodhēde* is again found in the *Ayenbite of Inwyte* so the explanation for the occurrence of *wishēde* also applies to this formation.

Further, the formations *drunkenhēde* and *drunkenship* coexist in ME:

(80) þe synnes of dede er þir: glotony, letchery, **drunkynhēde**, symony,
the sins of deed are these: gluttony, lechery, drunken-state, simony,
wytchecraft, ...
witchcraft

(ROLLEP,99.568)

(81) in glotonye and **drunkeschipe** be ful of stynkynde humours and nougt be
in gluttony and drunken-state be full of stinking fluid and not be
defoyled, ...
abused

(AELR3,29.91)

In the OED the information is given that both formations are obsolete and their meaning was 'drunkenness, state of being drunk'; *drunkenship* occurred less frequently and could also denote a drunken company (so here again the collective meaning of *-shipe* is evident). The fact that in ModE formations with adjectival bases predominantly occur with the suffix *-ness* is reflected in the descriptions of the meaning for *drunkenhēde* and *drunkenship*, both are denoted as 'drunkenness' in the OED. In OE, and even more so in ME (see Dalton-Puffer 1996: 82f, it was the suffix most usually attached to adjectival bases denoting 'state/property of A'. Like *drunkenhēde* and *drunkenship*, other formations with these suffixes (and *dom*) were replaced by formations with *-ness* because it was the suffix most productively used with adjectives. Evidence for this assumption are non-native (French) bases that first occurred with *-ness* and were increasing considerably over time (as opposed to *-hēde*, *dōm* or *-shipe* that either did not occur at all with French bases like *dōm* or *-shipe*, or only with few bases of that type like *-hēde*). The three elements lost their property to occur with adjectival bases, because *-ness* was more frequent and ousted these elements. This can be illustrated with Table 5.7 giving all adjectival bases in ENE:

Adjectival bases of formations with -hood, -dom and -ship in ENE			
stage-level	**-hood**	**-dom**	**-ship**
	likely	wise	
	lively		
	unlikely		

Table 5.7: *Adjectival bases of formations with -hood, -dom and -ship in ENE*

Only few new bases occur, and some formations with these bases like *wisdom* or *likelihood* must have been well established. This pattern is clearly on the decline, and in ModE only few lexicalised formations occur, formations with nominal bases being the only productive pattern with all three elements.

The rise of this pattern in ME and the gradual loss of it thereafter marks the semantic development of *-hēde*, *dōm* and *-shipe*. In ME formations with nominal bases appear for the first time with a more general, abstract meaning denoting the 'state/condition of N'. At the same time many formations with adjectival bases occur denoting the 'property of being A'. The sudden increase of the latter pattern indicates that *-hēde* and *-shipe* clearly have reached the status of suffixes (and *dōm* was well on its way) and that speakers were aware of it and used the elements as suffixes productively with nouns and adjectives. The crucial point is that they could be used building new words, and this is why a number of doublets started to occur with adjectival bases. Nevertheless, *-ness* was the suffix occurring with a higher frequency and therefore gradually adjectival formations with the three suffixes decreased. The denominal type remained since all three elements occurred with high frequencies and were all analysed as word-formation element by the speaker. Today they semantically form a paradigm building abstract nouns with a general meaning 'state/condition of N'. Moreover, formations with the three suffixes have also kept meanings due to metonymic shifts like 'skill, art', 'dignity' (*-ship*), 'territory' (*-dom*), 'place' and 'time' (*-hood*). Although they share meaning, they are semantically different enough to coexist.

5.3 The loss of the suffix *rǣden* and its interplay with the other suffixes

In this section we will briefly deal with the suffix *-rǣden* that existed in OE and ME but was lost after the ME period. It was still alive when the elements *-hood* and *-ship* gained suffixal status (as shown above at this point *dom* has not reached this status yet). The question is whether it was lost because the other suffixes started to occur or whether the two developments have to be seen independently from each other. The first scenario is of course the more interesting one because it tells us something about the word formation system of English (or more globally of language) and the interplay between derivational elements. In the following, the status of *-rǣden* as word-formation element will be investigated.

In the OED we find the following entry for the element with suffixal status[15]:

> *-red*,
> suffix, representing OE. *rǣden* condition, which was freely used as a second element in combs. In ME. the full form *-rǣden*, *-reden*, *-raden* was by the general dropping of final *-n* reduced to *-rede*, and this was subsequently shortened to *-red*. (In some cases the *-ede* was confused with the synonymous *-hede*.) In Sc., by an early metathesis of *n*, the suffix assumed the form *-rend* (*-rand*), later *-rent* (*-rant*). Of the numerous words thus formed in OE. (see Bosw.-Toller, s.v.) only a few were retained in ME., as *brother-*, *fer-*, *folk-*, *frend-*, *love-*, *man-*, *sibrede(n*, *-red*), repr. OE. *bróðor-*, *gefér-*, *folc-*, *fréond-*, *luf-*, *man(n)-*, *sibrǣden*. In addition to these, ME. had a few forms not recorded in OE., as *felawrede*, *negheburrede*, and the surviving representatives

[15] According to Voyles (1992: 277), the Germanic element is **rēðinj* having adjectival and nominal bases building nouns (unfortunately he does not give information with respect to its semantics).

> of the class, *gossipred, hatred* and *kindred*. (*cousinred*, used by Scott., is a hybrid and app. an individual formation.)

The OED does not include an entry for the free morpheme *rǣden*, which is why I consulted BT[16]:

> *rǣden* (n); e; f. I. a condition, stipulation: lat. *conditio*, II. rule, direction, III. a reckoning, estimating, the word occurs as the second part of many nouns, when its force is much the same as that of the suffixes *-ship*, *-hood*, *-red*; denoting a state, condition.

If we now turn to findings from the YCOE, there are five cases where *rǣden* occurs as free element. Some examples are given below:

(82) ac ēac swilce ðū bist Godes bearn þurh ðā **rædene** þæt ðū þīnne fēond lufige.
but also thou are god's barn through the condition that thou thine fiend lovest

(ÆCHom_I,_3:204.176.613)

(83) …, sume mid āþum gefæstnod þæt hī on hyre **rædenne** bēon woldon.
some with oath fastened that they under her rule been wanted

(ChronC_[Rositzke]:918.3.1126)

The examples show that the free morpheme occurs with the meanings 'condition, rule'.

(84) Wunige betwux ēow [$_{NP}$ lufu [sōðre$_{Gen}$ brōðer **rædene**$_{Gen}$]].
dwell among you love true brother condition's

(ÆCHom_II,_16:163.76.3612)

The example presented in 84 shows that *-rǣdene* also functioned as the head in a compound (note the linear order of *brōðer* and *rǣdene*). Further, the agreement endings of modifiers and nouns display that it was a feminine noun (as opposed to *hād*, *dōm* and *scipe*). Table 5.8 (p. 194) gives the types found and their frequency of occurrence[17]. In the last but one column formations with the same base and different suffixal elements are given, and in the last column the frequency of occurrence for these derivations in the YCOE is given.
We find 37 types with the element *-rǣden*. The formation with the highest occurrence is *(ge)fērrǣden* (183), and from what we said in chapter 3 about frequency we assume that it is a lexicalised element. Some hapaxes also occur like *gesīþrǣden*. If we examine formations occurring with the same base we find that out of the 37 listed types 16 types occur with the suffixal element *-scipe*. There is only one type *camprǣden* with one token that shows parallel formations with *-dōm* and *-hād*. Table 5.9 (p. 195) gives all formations found in the YCOE with both elements, *-rǣden* and *-scipe*, and the meanings given in Bosworth & Toller (1898) and Clark Hall (1996):
If the meanings of these formations are compared we see that those with the element *-rǣden* resemble those with *-scipe*, in that most of them denote a collectivity of persons. It was

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[16] In Clark Hall (1996) we find similar facts: *rǣden* f. condition, terms, stipulation, rule, government, direction, estimation.

[17] The data presented here are from the DOE and YCOE because only then can we account for all formations found in OE.

Formations with -rǣden in OE				
Form	**M**	**T**	**Other form**	YCOE
(ge)fērrǣden	'companion-state'	183	fērrǣdscipe	37
hīwrǣden	'family-state'	64	hīwscipe	1
hēordrǣden	'care-state'	46	–	–
(ge)þingrǣden	'pleading-state'	28	–	–
(ge)bedrǣden	'prayer-state'	23	gebedscipe	–
frēondrǣden	'friend-state'	21	frēondscipe	43
(ge)brōþorrǣden	'brother-state'	14	brōþorscipe	1
(ge)þēodrǣden	'fellow-state'	12	þēodscipe	56
(ge)mǣgþrǣden	'friend-state'	11	–	–
manrǣden	'submission-state'	11	manscipe	–
(ge)cwedrǣden	'agreement-state'	10	gecwedrǣdness	–
tēonrǣden	'abuse-state'	7	–	–
hūsrǣden	'household-state'	7	hūsscipe	–
foreþingrǣden	'pleading-state'	6	–	–
gafolrǣden	'tribute-state'	4	–	–
þegnrǣden	'thane-state'	4	þegnscipe	7
(ge)þoftrǣden	'fellow-state'	4	þoftscipe	8
wudurǣden	'wood-state'	3	–	–
synnrǣden	'injury-state'	2	–	–
holdrǣden	'faithful-state'	2	holdscipe	2
gyldrǣden	'guild-state'	2	gyldscipe	2
fēondrǣden	'enemy-state'	2	fēondscipe	18
folcrǣden	'people-state'	2	folcscipe	–
camprǣden	'war-state'	1	campdōm camphād	7 6
ealdlandrǣden	'landed-property-law	1	–	–
ealdgefērrǣden	'old-comrade-state'	1	–	–
frumrǣden	'origin-state'	1	frumsceaft	8
(ge)sīþrǣden	'companion-state'	1	sīþscipe	1
(ge)writrǣden	'written-law'	1	–	–
godsibbrǣden	'sponsor-state'	1	–	–
lēodrǣden	'country-state'	1	lēodscipe	42
limrǣden	'form-state'	1	–	–
medurǣden	'reward-state'	1	–	–
nāmrǣden	'learning-state'	1	–	–
samrǣden	'united-state'	1	–	–
treōwrǣden	'truth-state'	1	–	–
wīgrǣden	'war-state'	1	–	–
Total		482		

Table 5.8: *Formations with -rǣden in OE*

assumed above that this meaning arises via processes of metonymic shift due to the salient meaning of *-scipe* in combination with nominal bases denoting persons. We will also apply this assumption to *rǣden*.

By having a closer look at the bases of these formations we observe that apart from *hold* which is an adjective all the other bases are nouns. Moreover, a number of them occur

Comparison of formations with -rǣden and -scipe in the YCOE
gefēr-rǣden: companionship, fellowship, congregation *gefēr-scipe*: society, fellowship, brotherhood
hīw-rǣden: a family, household, house *hīw-scipe*: a family, household, house
frēond-rǣden: a friend-condition, friendship *frēond-scipe*: friendship
brōþor-rǣden: brotherhood, fraternitas *brōþor-scipe*: brotherliness, love, brotherhood, fraternitas
geþēod-rǣden: fellowship, society *geþēod-scipe*: teaching, instruction, testimony
geþoft-rǣden: companionship, fellowship, converse *geþoft-scipe*: companionship, society
þegen-rǣden: the condition of being a thane *þegen-scipe*: the status of thane
hold-rǣden: faithfulness, loyalty, faithful discharge of duty to a superior *hold-scipe*: loyalty, fealty, allegiance
fēond-rǣden: fiend-condition, enmity *fēond-scipe*: fiendship, enmity
gildrǣdenwgild-rǣden: the relation involved into a membership of a guild *gild-scipe*: a guild-ship, society
gesīþ-rǣden: companionship, troop *gesīþ-scipe*: fellowship, society
lēod-rǣden: country, region *lēod-scipe*: a people, nation, country occupied by a people

Table 5.9: *Comparison of formations with -rǣden and -scipe in the YCOE*

with the prefix *ge-* that has the function to give the noun it is prefixed to a collective sense (see also above): *ge-fer* 'collection of companions', *ge-þeod* 'collection of people', *ge-þoft* 'collection of comrades', *ge-siþ* 'collection of companions'[18] (see Bosworth & Toller (1898) and Clark Hall (1996)). This observation implies that it is not the element *-rǣden* alone that bears the collective meaning (and also *-scipe*, compare the nominal bases presented in Table 4.77 in chapter 4), it is also the prefix that contributes this meaning to the whole formation. Further, if the formations with the nominal bases prefixed with *ge-* and those without are compared we find that only the former ones have a collective meaning. This is an interesting observation and reveals something about the semantic meaning of base and suffix and their interplay. We will come back to this finding in chapter 6.
As concerns the semantics of all the bases found with *rǣden* we could categorise them as follows:

- **Nouns denoting persons**:
  hīw 'family, household', *frēond* 'friend', *(ge)brōþor* 'brother', *(ge)fēr* 'companion', *(ge)þēod* 'people', *(ge)mǣgþ* 'clan, tribe', *man* 'man', *þegn* 'thane', *(ge)þoft* 'fellow',

[18] This prefix is also found in German and still alive in ModG as can be illustrated with nouns like *Geäst* 'branches', *Gebälk* 'frames', *Gebrüder* 'Brothers', *Gesinde* 'servants' that also have a collective meaning. See also Fleischer & Barz (1995).

fēond ‘fiend’, *folc* ‘folk’, *ealdgefēr* ‘old comrade’, *lēod* ‘a people’, *(ge)sīþ* ‘comrade’, *godsibb* ‘sponsor’

- **Nouns denoting concrete entities**:
  hūs ‘house’, *wudu* ‘wood’ *synn* ‘sin’, *gafol* ‘tribute’, *gyld* ‘payment of money’, *(ge)writ* ‘writing’
- **Nouns denoting abstract things**:
  (ge)þing ‘meeting’, *foreþing* ‘pleading’, *(ge)bed* ‘prayer’, *(ge)cwed* ‘aggreement’, *tēon* ‘abuse’, *camp* ‘warfare’, *ealdland* ‘landed-property law’, *nām* ‘learning’, *treow* ‘truth’, *wīg* ‘war’*mēdu* ‘reward’, *frum* ‘origin’
- **Nouns denoting part of body**:
  lim ‘limb (form)’
- **Adjectives denoting a quality**:
  hold ‘faithful’
- **Other**:
  sam ‘together’ (prefix modifying *rāeden*, denoting state of union)

Most formations occur with nominal bases denoting persons, and most of these formations have a collective meaning (see above). The other big group is the one with nominal bases denoting abstract entities. The formations with nominal bases denoting concrete entities are mainly lexicalised, i.e., their concrete meaning is in most cases opaque. This may indicate that the semantic development of the formations with *rāeden* have reached a stage where they denote a general abstract meaning indicating the suffixal status of *rāeden*.

Next, we will deal with *-rāeden* in ME. The MED gives the following information on *-rede(n*:

> *-rede(n* (suf.) Also *-red*, *-red(ene*, *-redin(e*, *-redinge*, *-redne*, *-read(ne*, *-redde(n(e*, *-retin*, *-rad(e*, *-raden(e*, *-radin*, *-radon(e*, *-radden*, *-rahede*, *-rod(e*, *-rid(e(n*, *-ridin*, *-riding*, *-ring*, (early) *-ræden*, *-ræidene* & (following simplex with final *-r*) *-ed(e(n*, *-ade*, *-(e)den*, *-doun*, *-hede* & (error) *-rex*. [OE *ræden*, *redin*, LOE *rædinge*; for spellings see ME *kinreden*; sometimes replaced by *-hed(e* suf. (q.v.), esp. when the simplex has final *-r*.]
>
> A derivational suffix forming nouns in composition with a noun (rarely an adj.) as simplex: (a) in abstract nouns denoting condition or qualities associated with the condition: e.g., *broþer-reddene* [OE *brōþor-rāeden*], brotherly love; *cuð-red(d)en* [cp. OE *cuþ* adj. & ME *couth* adj. (& n.)], intimacy; *god-modrede*, spiritual relationship; *godsib-rede* [OE *godsibb-rāeden*], spiritual kinship; *love-reden* [OE *luf-rāeden*], friendship, kindness; *maiden-reden*, state of virginity [see maiden n. 5.]; *neigheborred*, proximity, neighborly feeling; (b) with concrete senses expressive of the coll. sense of the simplex: e.g., *folkreden* [OE *folc-rāeden*], the people [see folk n. 2.(a).]; *iferred(e* [OE *gefēr-rāeden*], company, group; (c) with senses of both types (a) and (b): e.g., *felau-rede*, fellowship & group of associates; *fērrede(n* [OE *gefēr-rāeden*], companionship & company, band; [OE *gefēr-rāeden*], companionship & company, band; *frend-rede(n* [OE *frēond-rāeden*], friendship & group of friends; *hatred(e*, feeling of hate & actions or words expressing hate; *kinrede* [LOE *cynrede*; cp. ME kin n.], blood relationship, friendship & family, kinsfolk, tribe, etc.; (d) with special senses: e.g., *man-reden* [OE (WS) *manrāeden*][19], homage & group of

[19] Since this formation is found under special senses it seems plausible to assume that is had been lexicalised by then. It used to have a transparent meaning ’human being’ + ’rank, condition’.

retainers & sexual union; *sibrede*, consanguinity & the banns of marriage; (e) with superfluous -nes(se) suf.: *samedrednesse, samenrednesse*, unity.

Dalton-Puffer (1996: 85) notes that in ME the suffix *-ræden*, *-red(d)en* only builds few formations and therefore it cannot be called a derivational suffix in that period. She gives the four forms she found in her corpus study: *brotherreddene*, *frēondrāeden*, *cunredden*, *manreden*. Since it is assumed that the meaning of these derivatives was 'state, condition of N' (see also Kastovsky 1992: 388) we find a strong semantic parallel with formations with the element *-hēde/-hōde* and *-shipe*. Dalton-Puffer makes an interesting comment with respect to formations like e.g. *samedredness* that show, as the MED puts it, a "superfluous *-ness*": she claims that these formations should rather be explained with a necessity to use the suffix in these formations because at that time *-reden* was no longer felt as being a suffix by the speakers (also note that *-ness* occurs here with an adverbial base *samed* but not with nominal bases). Therefore, the occurrence of these formations are evidence for their being analysed as simplexes and gradual loss of the semantic force of the element. In the PPCME2 the following formations are found:

Formations with -reden in ME in the PPCME2			
Form	**M**	**T**	**OE**
fērreden	'companion-state'	12	+
kynreden	'blood-relation-state'	3	
hatreden	'hatred-state'	2	
sibreden	'union-state'	2	+
lovereden	'love-state'	1	
neigheborreden	'neighbour-state'	1	
Total			21

Table 5.10: *Formations with -reden in ME in the PPCME2*

In addition to the formations found in the corpus, the MED gives the following formations:

Formations with -reden in ME from the MED		
Form	**M**	**OE**
manreden	'submission-state'	+
tenereden	'abuse-state'	+
thingreden	'pleading-state'	+
frendreden	'friend-state'	+
thedreden	'fellow-state'	+

Table 5.11: *Formations with -reden in ME from the MED*

As can clearly be seen, most formations found in ME have already occurred in OE, only *kynreden* 'kin', *hatreden* 'hate', *lovereden* 'love' and *neigheborreden* 'neighbour' have not occurred in the OE corpora. These four formations all show nominal bases, two of them denoting persons and collectivity, and two of them denoting mental states. It is the meaning of collectivity that occurs most frequently here which has parallels in formations with *-scipe*.

Finally, we will compare a number of these formations occurring with *-reden*, *-hēde*, *dōm* and *-shipe* in ME, all given in Table 5.12 (p. 198).
The date in brackets is the first occurrence of the formation given in the MED. We see here that it is always the formation with *-reden* that occurs first; we further see that we find parallel

Bases with more than one suffixal element					
	man	**neighebour**	**kin**	**love**	**friend**
-reden	(1121) 'homage', pledge of service'	(1225) 'proximity, obligations towards one's neighbours'	(c1200) 'family, blood relation'	(1330) 'friendship, kindness'	(c1175) 'friendship'
-hēde	(1125) 'human condition' 'nature, manly virtue'	(1425) 'spiritual union, unity'	(1375) 'one's kindred'	– –	(1425) 'friendliness'
dōm	– –	– –	– –	– –	– –
-shipe	(1275) 'position of honour or respect dignity worthiness'	(1325) 'neighbhourly attitude'	– – –	(1500) 'love, love affair'	(c1225) 'amicable relationship between persons'

Table 5.12: *Bases with more than one suffixal element*

formations with *-hēde* and *-shipe* but none with *dōm*. The lack of formations with *dōm* could be explained in two ways: 1. it is due to the size of the corpus and formations with the element did exist; 2. it is due to the meaning of the element, i.e., the formations *mandōm*, *neighebourdōm*, *kindōm*, *lovedōm* and *frienddōm* did not (and do not[20]) exist because the meaning of *dōm* and the bases semantically clash. In chapter 4.3 above it was shown that the salient meaning of *dōm* was 'authority having the power to judge' and that it therefore occurred with nouns that could denote an authority like *bishop*. Further, due to this salient meaning the metonymic shift 'realm, territory' could arise leading to formations with this meaning. What we never find with this element, however, are abstract bases denoting abstract (mental) states like *love*, *hate*, etc., and this is because the salient meaning of the element would not allow for it. Since neither *kin* nor *neighbour* (nor *man*) are nouns denoting an authority (holding a rank) formations with *dōm* will not occur.

The other two elements *-hēde* and *-shipe* occur with all but one bases given in the table, *-hēde* does not occur with *love* and *-shipe* does not occur with *kin*. The OED notes that there are some formations where *-rede* was confused with *-hēde*, but this could probably only happen because 1. the elements were phonologically similar, 2. in some instances they both denoted similar meanings like *neighbourreden* and *neighbourhēde*. As concerns most formations with *-rede*, however, the meaning 'collectivity' is prominent and therefore most doublets occur with *-shipe*. Further, it is plausible to assume that this element replaced most formations with *-reden*, even more so as *-shipe* had suffixal status in OE and ME and built words productively at that time. Thus, again one of the main factors deciding whether a word-formation element vanishes or stays alive seems to be frequency, which implies that a

[20] According to the OED *mandom* occurs once in 1844 with the meaning 'realm of man'; here, the observed metonymic shift 'realm, territory' from 'authority' is found again.

speaker uses this element frequently because he is aware of its usefulness, i.e. its semantics is prominent and abstract enough to build many words which the speaker needs to convey meaning.

5.4 Conclusion

To conclude, in this section we have dealt with the so-called rivalry of the three ModE suffixes *-hood*, *-dom* and *-ship* and it was shown that there are differences between rivals with nominal bases and those with adjectival bases: the former type clearly displayed differences in meaning whereas the latter type only did so in OE but not in ME. Due to this finding it was claimed that formations with nominal bases are not rivals because they denote different things when they occur with the same bases, and are therefore able to coexist. With respect to formations with adjectival bases it was assumed that their sudden rise in ME marks the stage where *-hēde* and *-shipe* have reached suffixal status denoting more general, abstract meanings (and *dōm* is well on its way). Since a "stronger" suffix had already existed for a long time, native *-ness*, formations with *-reden* were ousted by formations with *-ness*. It was further shown that Aronoff & Cho's assumption that suffixes are sensitive to the semantics of their bases is borne out, not only for *-ship* but also for *-hood* and *-dom*. Although this can be explained synchronically with the distinction between stage-level and individual-level predicates, the source of these doublets can only be explained diachronically by taking into account the salient meanings of the once free elements *hād*, *dōm* and *scipe*.

As concerns the co-occurrence of formations with *-ræden*, *hād*, (*dōm*) and *-scipe* it was shown that it is *-ræden* and *-scipe* that seem to be most similar semantically because we find many formations with the same bases. Apart from the semantic similarity it must have been the low frequency of *-ræden* and the high frequency of *-scipe* as well as the by then suffixal status of *-scipe* that led to the replacement of *-ræden*-formations with *-scipe*-formations in ME. The results presented in this chapter will bear on the analysis presented in chapter 6.

6 A lexical-semantic analysis of word-formations with *-hood*, *-dom* and *-ship*

6.1 Introduction

In chapter 4 the development of the three suffixes *-hood*, *-dom* and *-ship* was examined the main findings of which can be summarised as follows: 1. It was shown that all three elements started out as free morphemes with abstract meanings; these meanings partly overlap; 2. There is a stage where these elements are the second member of compounds clearly seen by the lack of agreement between head noun and modifier(s) and the lack of reference to one object. This is also the stage where the free elements are gradually lost (*-hood* and *-ship*) or survive in a different formal shape with a specific meaning (as noted above *doom* still exists but underwent the GVS and has a specific meaning). It has become evident that the three elements do not undergo this development at the same time, i.e., each of them reaches the status of compoundhood or suffixhood at different points in time. So *-ship* is the element that has reached suffixhood first, it behaves like a suffix already in OE whereas *-hood* reaches this status only in ME and *-dom* even later; 3. The elements have reached the status of suffixes as soon as we find a productive series of newly coined words with these elements depending on their semantics: their salient meanings ('status, office, rank' for *-hood*, 'authority, judgement' for *-dom*, 'state, condition' for *-ship*) is extended to a general meaning 'state, condition of N' which can best be seen by those formations occurring with sortal nouns as bases (*thinghood*, *filmdom*, *cloudship*). This development has a further formal reflex in that elements, once they have reached suffixal status, only occur productively with one morphological category (all three elements used to occur with adjectival and nominal bases (because they were all relational), and all three of them can no longer productively be used with adjectival bases).

In chapter 5 the bases of the formations with *-hood*, *-dom* and *-ship* were categorised as stage-level and individual-level predicates. The motivation for this classification was an adequate description of the semantics of the bases occurring with these suffixes. It was shown that the restriction to stage-level predicates for *-ship*-suffixation in ModE assumed by Aronoff & Cho (2001) can be explained with the salient meanings of the suffix. It was further shown that this also applies to the other two elements, i.e., the specific meaning of a suffix selected by a base is the diachronic reflex of the development of this suffix[1]. What is assumed here is that the meaning of a formation can be defined in terms of the interplay between the meaning of the base and the meaning of the suffix, implying that both base and suffix bear meaning, and that the combination of the meaning of base and suffix results in the meaning of the product of derivation. This assumption is in clear contrast to Marchand (1969: 215) who claims that "Unlike a free morpheme a suffix has no meaning in itself, it acquires meaning only in conjunction with the free morpheme which it transposes."

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[1] I would like to point out that this claim is made not for all suffixes but only for those 1. that are native, 2. that start out as free morphemes, 3. that used to be relational nouns. It remains to be seen if other elements like e.g. *-wise*, *-monger* or *-wright* have developed in a similar fashion. I leave this question for future research.

Based on these findings, in the following I will elaborate on the semantic nature of the bases and the once free elements *hād*, *dōm* and *scipe*. I will assume that the three elements were all relational nouns that required an argument (additionally to the referential argument 'R'), and that this property allowed them to become suffixes in the first place. It is also this property that required bases of the type stage-level and individual-level predicate, depending on the salient meanings of *hād*, *dōm* and *scipe*, and that the combination of a relational noun requiring a predicate as argument leads to the semantics of the formations with these elements. The salient meanings assumed for the elements are given again below (see also chapter 5):

(1) a. *hād*: 'status, office, rank'
b. *dōm*: 'authority, judgement'
c. *scipe*: '(resultant) state, condition'

All three elements are relational nouns. In the traditional literature (e.g., Behaghel 1932: 22ff) we find a subdivision of nouns into "absolute Begriffe" (absolute concepts) and "relative Begriffe" (relative concepts). This distinction is tantamount to the distinction between sortal and relational nouns. According to Löbner (1985: 292) the former type of noun classifies objects whereas the latter type of noun describes objects that are in a certain relation to other objects. A noun like *chair* is a sortal noun, it classifies an object and is a one-place predicate (it only contains the referential argument 'R'). A noun like *wife* is a relational noun because it describes the relation between a wife and the man the wife is married to. Therefore, relational nouns are used predicatively (*wife* is a two-place predicate containing the referential argument and the argument for 'wife of N'). Coming back to our three elements *hād*, *dōm* and *scipe* I will assume that they are two-place predicates:

(2) a. *hād*: predicate (x,y) 'office of N' etc.
b. *dōm*: predicate (x,y) 'authority of N' etc.
c. *scipe*: predicate (x,y) 'state of N' etc.

All three elements contain the referential argument 'R'[2] referring to the 'office, rank, status' (*hād*), 'authority, judgement' (*dōm*) and 'state, condition' (*scipe*), and the argument that holds the office, that has the authority or renders a judgement, and that is in a state or condition, etc. Since *scipe* is a deverbal form we would have to assume for this element that it inherited the argument structure from its verb ('to create something') so that *scipe* originally contained these arguments.

At this stage, the elements are free elements occurring in syntactic phrases modified by nominal genitives or adjectives (this applies to *scipe* only in a very restricted way since we have just one example displaying it as free morpheme, see above). The relation required by the free elements can syntactically be expressed with the structure Modifier + Head Noun (the several stages are illustrated with examples for *-hood*):

(3)

þæt	hē	þǣr	onfenge	**[$_{\text{Dat,Sg.}}$**	**[ærcebiscopes$_{\text{Gen,Sg.}}$**	**hāde$_{\text{Dat,Sg.}}$]]**
that	*he*	*there*	*received*		*archbishop's*	*office*

(Bede_3:21.248.11.2540)

[2] The structure *predicate (x,y)* could also be described as *predicate (R,y)* where *R* stands for referential argument.

In this example the genitival modifier *ærcebiscopes* functions as the argument required by *hād* 'office of N'. Since the three elements have meanings that generally refer to persons (only a person can hold an office or rank or render a judgement) most modifiers found with these elements are nouns denoting persons. These phrases were found quite frequently in OE implying that these relations were highly salient at that time.

Further evidence for these assumptions comes from the many denominal adjectives that denoted persons and occurred as modifier of *hād*, *dōm* and *scipe*. For the reader's convenience one such example is repeated here for *hād*:

(4) Ond þætte sē **cynelica** **hād** þæs hālgan weres ēce gemynd hæfde,
and that the kingly order the holy men eternal remembrance had
(Bede_3:9.182.33.1825)

Adjectives like *cynelica* behave like relational nouns in that they denote a relation between two nouns (here 'the rank of the king'). In line with Dalton-Puffer (1996: 80) I claim that there is a semantic connection between nouns denoting persons and adjectival bases: since these nouns denote persons in a certain personal or social state the persons denoted have certain qualities. These qualities could be expressed with adjectives preceding *hād*, *dōm* and *scipe*. In the course of time this pattern was lost for all three elements independently, i.e., due to the higher frequency of occurrence of the *ness*-pattern (see chapter 5; compare also German *-heit* where this pattern is the only productive one).

Apart from nominal and adjectival modifiers denoting a person there are also nominal modifiers that do not denote a person but rather an abstract entity like *windes* in (5) below. Since *dōme* cannot mean 'office of N' if it is modified by these nouns another meaning closely connected to 'office of N' occurs (which shows a metonymic shift): here the phrase *windes dōme* can only refer to the power of the wind:

(5) Hwæt, þū wast gif þū þīnes scipes segl ongēan þone wind tōbrǣdest,
lo thou knowest if you thine ship's sail against the wind spreadst
þæt þū þonne lǣtæst eall ēower færeld tō [$_{Dat}$[$_{Gen}$ **ðæs** **windes**] **dōme**.
that thou then letst all your way to the wind's power
(Bo:7.16.28.256)

This phrase bears the abstract meaning 'power of N' in the sense that *wind* is a sortal noun not referring to persons. Since *dōm* generally refers to a (living) entity the sortal noun *wind* is personified in the context given above. Phrases and formations of this type clearly show that *hād*, *dōm* and *scipe* are sensitive to the meaning and structure of their bases and that formations with sortal bases denote a general meaning 'state, condition of N' resulting from the salient meanings of the three elements (see below). In most cases, however, the relation is expressed with a nominal modifier denoting a person and therefore the whole phrase denotes a relation that is applied to a person, i.e., a property or function of that person. In the other rare cases (mainly hapaxes), the nominal modifier does not restrict the meaning of the whole phrase to persons and therefore a person-independent, more abstract meaning is possible. The occurrence of the latter cases are important because they show the semantic potential of the three elements depending on the semantic nature of their bases.

In the next stage of the development, a morphological (formal) change can be observed as thoroughly described in chapter 4: modifier and head noun no longer show morphological

agreement resulting in a word-level element, i.e., a compound. This change is accompanied by a semantic change, namely the loss of referentiality that is a general property of compounds.

According to Meyer (1993: 111) there are four sources from which the relation in a compound can be derived:

1. The grammatical process of thematic role assignment
2. The relation belongs to the lexical meaning of the head
3. The relation is based on conceptual knowledge
4. The relation is based on discourse knowledge

The first property results in the most salient interpretation because it is based on a grammatical relation. As claimed above, the elements *hād*, *dōm* and *scipe* have this property which is based on the argument structure of the head and the selectional restrictions affecting the modifier. In OE and ME many compounds occur with the same linear order as the syntactic phrases given above (noun denoting a person + head noun):

(6) Þā hē nolde for **[his$_{Sg.}$ biscop hāde$_{Gen,Sg.}$]** hī aweg adrifan,...
then he not-wanted for his bishop office they away drive

(GDPref_and_3_[C]:7.188.19.2363)

Compounds like *cildhād*, *biscophād*, *cynedōm*, *biscopdōm*, *frēondscipe*, *lēodscipe* satisfy the selectional restrictions, the argument required by the head noun appears as first member of the compound. Semantically, the first member restricts the extension of the meaning of the second member. But why should we assume that the property of being relational (used predicatively) is a prerequisite for elements to become suffixes? Because they require a relation between two elements and therefore they require the co-occurrence of elements. Under these assumptions, the observation that there is an intermediate stage where the elements reaching suffixal status function as second members of compounds seems only natural. As free elements in syntactic phrases *hād*, *dōm* and *scipe* require an argument that appears as preceding modifier. As bases in compounds they also require an argument that appears as preceding modifier on the word-level, so this property is retained throughout the change. In ME, all three elements display high frequencies for the adjectival pattern, and in chapter 5 it was claimed that this finding is evidence for the development towards suffixal status of these elements because at that time speakers/writers used these elements to build productive series of formations. Interestingly, this pattern is lost for all three elements because the suffix *-ness* was a well-established suffix building formations of that type with much higher frequencies (see Dalton-Puffer (1996: 81ff)). Thus, formations like

(7) Ich abode hym þat made me sauf of my **litelhēde** and of þe
I awaited him that made me safe of my littleness and of the
persecucioun of þe gost.
spirit

(EARLPS,65.2833)

were nonce-formations in ME that quickly vanished after they had been built (on the spur of the moment by one speaker/writer for a special purpose). Those formations that survived (*falsehood*, *unlikelihood(un)likelihood*) occurred with higher frequencies than the other formations with adjectival bases and as a result soon reached the status of established elements.

In ENE, only nominal bases predominantly denoting persons occur with the three suffixes. Moreover, new types are not very frequent with all three elements. In ModE, *-hood* displays the highest value for *P* (0.003), followed by *-dom* (0.002) and *-ship* (0.001) and compared to other suffixes (e.g. *-ize* or *-able*) they are quite productive. With respect to the semantics of these formations, it is assumed by Aronoff & Cho (2001: 171) (for *-ship*-suffixation) that "*friendship*, *popeship* and *penmanship* are individual correlates of the properties denoted by the predicate [...]". Nevertheless, they could only gain this status because the suffixes used to be relational nouns. Although all three elements name abstract properties and build a paradigm, they differ semantically, their so-called rivalry is no rivalry since they denote different properties: since *hād* used to denote the rank of a person *motherhood* denotes the state of being a mother. The formation *mothership* denotes the office of a mother since *-ship* may denote an office (due to a metonymic shift). Thus, the differences found between these formations can be attributed to the salient meanings of *hād*, *dōm* and *scipe* (and can be described with the distinction between stage-level and individual-level predicates as shown in chapter 5). These differences, or in Aronoff & Cho's terms semantic restrictions, are lexical properties of these elements, i.e., they are part of the lexical-semantic representation of *-hood*, *-dom* and *-ship* and have to be learnt by the speaker.

In the next section, an analysis capturing all the aspects of suffixation with *-hood*, *-dom* and *-ship* discussed so far will be proposed. It will be argued that we need a feature-based lexical-semantic analysis of word-formation to do justice to all synchronic and diachronic aspects of the development.

6.2 Lieber's (2004) approach

Recently, the field of morphology, and more explicitly word-formation, has gained a lot of attention from a theoretical perspective which can be seen by the plethora of literature on theoretical issues dealing with word-formation phenomena. However, in linguistic theory morphology has been neglected for quite a long time, in Structuralist theory as well as in Generative Grammar. Synchronic structuralist theory exclusively concentrated on phonology, and only later in the work of Hockett (1958) and others morphological issues gradually gained a more and more central position. The same development can be observed in generative linguistics. Early generative views (Chomsky 1957, Lees 1960, Chomsky & Halle 1968) saw the place of morphological issues either in phonology or syntax, and it was not until Halle's work in 1973 when a generative approach to morphology in its own right was established. In morphological theory, one of the main questions is how words are built up, and whether this happens via concatenating morphemes (Item-and-Arrangement theory in Hockett's terms) implying that the relationship between form and meaning is one-to-one (see Lieber 1981, 1992, Selkirk 1982, Williams 1981a) or whether there is no such thing as a morpheme and words are built up by processes or rules on the base of whole words that stand

in relation to each other somehow (the one-to-one relation between form and meaning is also assumed here). This theory has been called Item-and-Process by Hockett (1958) and is put forward in Aronoff (1976). Another type of theory mainly dealing with inflection is the so-called Word and Paradigm framework where semantic and morpho-syntactic properties are mapped onto the word in a many-to-one fashion (Matthews 1972 and Anderson 1992). Finally, the Separation Hypothesis assumes that the semantic side of word-formation should be strictly separated from the formal side since the form-meaning relation is often not one-to-one (see e.g. Beard 1995, Corbin 1987, Szymanek 1988, Beard & Volpe 2005). All studies within these frameworks also discuss the architecture of morphology as well as whether morphology is an autonomous module or not (see also chapter 7). What has been neglected for the most part is a lexical-semantic analysis of complex words. Of course, there is work on lexical meaning (e.g. Carlson 1977, Dowty 1979, Wunderlich 1986, Levin & Rappaport 1988, Jackendoff 1990, Levin & Pinker 1992, Pustejovsky 1995, Wierzbicka 1996, Stiebels & Wunderlich 1995, Wunderlich 1997, Stiebels 1998) but most theories do not focus on the lexical aspects of meaning comprehensively, i.e., cross-categorially. Moreover, and most crucial for the study presented in this book, most of literature found exclusively deals with verbal semantics leaving nominal semantics completely aside[3]. Therefore, what is needed is a lexical-semantic framework providing a systematic way to comprehensively describe the semantics of complex words, i.e., including all types of word-formation products[4]. Lieber (2004) provides us with such a framework that needs to have at least the following properties to adequately describe the semantics of word-formation. According to Lieber, such a framework has to be decompositional, it has to focus on the lexical semantics of simplexes and complexes, and it has to be cross-categorial[5]. Before we move on to a description of her framework it is important to stress that her theory has so far been applied synchronically, i.e., the development of words and therefore the semantic change of words is not taken into account. However, as shown in this book questions raised for the synchrony of word-formation equally matter to the diachrony of word-formation. That is why an extension of Lieber's approach will be proposed to explain and analyse the diachronic aspects of word-formation.

Lieber (2004: 2) gives a number of the crucial questions raised in the literature on morphology:

- *The polysemy question*: for example why does the affix *-ize* in English sometimes seem to mean 'cause to become X' (*unionize, randomize*), sometimes 'cause to go into X' (*containerize*), and sometimes 'perform X' (*apologize*); why does the affix *-er* sometimes create agent nouns (*writer*), sometimes instrument nouns (*opener*), and sometimes patient nouns (*loaner*)? Do these affixes have a unitary core of meaning at all, and if so, what is it?

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[3] This also applies to the theoretical approaches on compounding where a wealth of literature is found on synthetic compounds as opposed to root compounds. For a comprehensive overview of morphological theories see Spencer 1991 and Carstairs-McCarthy 1992, Stekauer & Lieber 2005.

[4] Although Plag (2004) presents an approach where the semantics of the input determine the output of word-formation processes (and where syntactic categories do not play a role at all) his approach is only based on the analysis of a subset of English suffixes and therefore does not serve for the purpose of establishing a full, systematic account of the lexical-semantics of suffixation.

[5] For a discussion on the justification of these properties see Lieber 2004: 4ff.

- *The multiple-affix question*: why does English often have several affixes that perform the same function or create the same kind of derived word (e.g., *-ize*, *-ify* for causative verbs; *-er*, *-ant* for agent nouns)?

- *The semantic mismatch question*: why is the correspondence between form and meaning in word formation sometimes not one-to-one? On the one hand, why do there sometimes seem to be morphemes that mean nothing at all (e.g., the *-in-* in *longitudinal* or the *-it-* in *repetition*)? On the other hand, why do we sometimes find "derivational redundancy", that is, cases in which the same meaning seems to be expressed more than once in a word (e.g., in *dramatical* or *musical*)? Finally, why does the sense of a morpheme sometimes seem to be subtracted from the overall meaning of the word (e.g., *realistic* does not mean 'pertaining to a realist')?

It is clear that the questions posed above are treated differently in synchronic and diachronic approaches. Since synchrony deals with the actual state of a language at a certain point in time it treats its properties and phenomena without taking its history into account. Thus, it leaves aside aspects typical of language change that could explain some of the examples given in the last question (e.g., it might be the case that for the first cases relatinisation processes might have played a role). As concerns the multiple-affix question the three suffixes *-hood*, *-dom* and *-ship* could also be part of that question since, as noted above, it has often been claimed that they mean the same in ModE. When looking at their development, however, we find that they never meant exactly the same, and that there are semantic differences that can explain gaps in paradigms (see the discussion about *fatherhood* and *fathership* in chapter 5). Thus, from a diachronic perspective, suffixes like *-hood*, *-dom* and *-ship* are not the same and do not create the same kind of formation, a view which of course also bears on the synchrony of these elements. The first question posed deals with the often discussed property of words, polysemy. Synchronically, derivations with the same suffix seem to denote different meanings, but how can this be possible for one form? Diachronically, words have a history and develop new meanings in the course of time, and that is why it is not surprising that words end up with different meanings. In the literature on grammaticalisation this phenomenon has been called "layering" (Hopper 1991) implying that old forms and meanings of words coexist with new(er) forms and meanings. Moreover, the question of whether an affix can have a salient (core) meaning seems to be a natural one diachronically, since it is assumed that words have a salient meaning that changes and develops in the course of time. Thus, the polysemy question, the multiple-affix question and the semantic mismatch question can be approached by adding the historical dimension of words to their explanation, and this is evidently what a diachronic approach does. Consequently, we can say that a diachronic treatment of these questions adds a further aspect to these phenomena and is sometimes able to explain findings that could not have been explained from a synchronic perspective only. The analysis suggested here serves to provide some answers to these questions from the diachronic perspective.

Now let us turn to Lieber's framework. Since she assumes a process during which derivations are built up with their lexical-semantic representations her approach qualifies well to analyse the development of the suffixes *-hood*, *-dom* and *-ship* that have been discussed in detail in the preceding chapters. In the following, her main assumptions will be introduced.

First, she assumes that lexical semantic representations are composed of what she calls the Semantic/Grammatical Skeleton and the Semantic/Pragmatic Body (for similar assumptions

see Hovav & Levin 1992, Mohanan & Mohanan 1999). The skeleton is the formal part of the semantic representation and the semantic body is the less formal part. Lieber (2004: 10) states

> The skeleton forms the foundation of what we know about morphemes and words. It is what allows us to extend the lexicon through various word-formation processes. The body fleshes out this foundation. It may be fatter or thinner from item to item, and indeed from the lexical representation of a word in one person's mental lexicon to the representation to that "same" word in another individual's mental lexicon. But the body must be there in a living lexical item. Bodies can change with the life of a lexical item – gain or lose weight, as it were. Skeletons, however, are less amenable to change.

From this statement it becomes clear that Lieber assumes a division of labour between the skeleton and the body in lexical-semantic representations. Moreover, at first sight it seems as if the body undergoes semantic change. We will come back to this point below.

Lieber further claims that when a complex word is created from simplexes (processes of word-formation) a single referential unit is created out of two distinct semantic skeletons that either stand in the relationship of juxtaposition (compounding) or subordination (affixation) to one another. The mechanism she proposes to create this single referential unit is co-indexation. Thus, in the process of compounding semantic skeletons are juxtaposed and co-indexed. In the process of affixation skeletal material is added to a base whose own skeleton is subordinated (the base is embedded into the structure of the affix). With respect to the body, Lieber claims that compounds exhibit skeletons with accompanying bodies, but affixes will have little or no semantic body. Crucially, in the course of time both compounds and derivations may develop distinctive bodies as a function of their being lexicalised. Lieber (2004: 11) continues

> Lexicalisation, we shall see, proceeds on an item-by-item basis, thus allowing a wide range of meanings to exist in items formed by the same process of derivation or compounding.

Lieber clearly includes a diachronic aspect here that affects the body of a lexical-semantic representation. What she probably means by "distinctive bodies as a function of their being lexicalised" is what Bauer describes as idiosyncrasies on the level of form (see chapter 1. Nevertheless, the notion of lexicalisation also implies that morphological complexes show idiosyncrasies on the level of semantics which includes word-formations with the same suffix ending up with different meanings (see the lexicalised formation *lǣcedōm* in ME versus other formations with that element). However, Lieber points out that lexicalisation is not the only way complex words may gain more than one meaning. "In fact, the concomitant claim that the semantics of derivation should reflect the semantics of the simplex lexicon is that the sorts of the polysemy we find in the simplex lexicon should also be found in derived words" (2004: 11). Further, she claims that affixal polysemy can only be accounted for if "the right level of underdetermination of meaning" (2004: 11) can arise, and this is what her system of features manages to do. Hence, there are two processes that lead to the polysemy of morphological complexes.

Before we move on, a digression on polysemy (ambiguity) is in order here. As noted above, polysemy, i.e., the property of a lexical item to have more than one meaning, can be found with simplex and complex morphological units. However, the ways in which these types of words carry meaning can vary.

Weinreich (1964) makes a distinction between contrastive and complementary ambiguity. The former type of ambiguity has traditionally been called homonymy and can be defined as

the association of a lexical item with at least two distinct meanings that are unrelated. The latter type of ambiguity can be defined as the association of a lexical item with alternative readings which are manifestations of the same salient meaning found in different contexts. Both types of ambiguity are illustrated with the examples below[6]:

Contrastive ambiguity:

(8) a. They moored the boat to the *bank*.
b. He is the manager of the local *bank*.

Complementary ambiguity/polysemy:

(9) a. That must be an uncomfortable *position* to sleep in.
b. What is your *position* on capital punishment?

In the latter examples a logical connection between the senses exists, and a semantic theory has to account for this connection. Coming back to Hopper's term "layering", polysemy can be explained by taking into account semantic change, i. e., polysemy can be seen as the synchrony (or result) of semantic change. Synchronically, it has been widely assumed that polysemy results from an underspecification of meaning which is (also) a property of suffixes. In chapter 5 it was claimed that the polysemy of the suffixes *-hood*, *-dom* and *-ship* can be explained by tracing back the semantic change of these elements. In order to do so, however, the phenomenon of metonymic shift (e. g., Cruse 2000, Blank 2001a) has also to be taken into account. It can be defined as figurative use based on association, or more precisely, on contiguity, i.e., on temporal, spatial and causal relations between concepts. For example, *-hood* exhibits metonymic shifts from state to time (*childhood*) or state to local domain (*neighbourhood*), *-dom* exhibits a metonymic shift from quality to local domain (*kingdom*), and *-ship* exhibits metonymic shifts from action to result (*lordship* as title) and from result to action (*penmanship*). All three elements had/have a number of salient meanings some of which lead to metonymic shifts. Hence, both polysemy and the process of metonymy are crucial for understanding the lexical-semantics of these elements.

Following Jackendoff (1990), Lieber further assumes that the skeleton consists of two basic parts, a function and one or two more arguments of that function (1)a. As concerns derivation, skeletons are hierarchically layered, i.e., functions can take functions as their arguments (1)b:

(10) a. [F_1 ([argument])]
b. [F_2 ([argument], [F_1 ([argument])])]

The structures in (1) a. and b. show skeletons of morphological complexes that are built up compositionally.

Moreover, in line with Williams (1981a) and Higginbotham (1985), Lieber assumes that all major lexical categories (A, N, V) take an argument which has been called R (referential) in the literature. For Williams, R refers to 'referential' and is characterised as the external argument of a noun. For example nouns like *Londoner* 'person who lives in London' or *freighter* 'thing which carries freight' receive a personal and an instrumental interpretation respectively (Booij & Lieber 2004: 336), and thus show referential uses. According to Williams, R can be discharged by linking it with an NP of which it is predicated.

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[6] The examples are taken from Cruse (2000: 105).

Apart from the skeleton and body, Lieber proposes a number of features (also at least partly based on Jackendoff (1990)) that are contained in the skeleton. Some of these features[7] are functions and take arguments. All the features proposed by Lieber are binary and privative (present/absent). The most basic categories are those comprising SUBSTANCES/THINGS/ESSENCES and SITUATIONS and are characterised by the features [+/- material] and [+/- dynamic][8]:

> **[+/- material]**: The presence of this feature defines the conceptual category of SUBSTANCES/THINGS/ESSENCES, the notional correspondent of the syntactic category Noun. The positive value denotes the presence of materiality, characterizing concrete nouns. Correspondingly, the negative value denotes the absence of materiality; it defines abstract nouns.
>
> **[+/- dynamic]**: The presence of this feature signals an eventive or situational meaning, and by itself signals the conceptual category of SITUATIONS. The positive value corresponds to an EVENT or process, the negative value to a STATE.

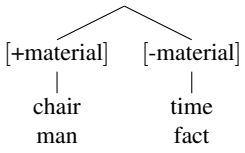
To illustrate the structure of the skeleton and the features suggested, let us look at two concrete nouns:

(11) a. chair: [+ material ([ ])]
b. leg: [+ material ([ ], [ ]),]

The first noun *chair* is a concrete noun that has one argument, namely its referential argument. It contains the feature [+ material] with a positive value and lacks the feature [+/- dynamic]. The second noun *leg* is also a concrete noun but since it is a relational noun it has more than one argument (apart from the referential argument, it needs another argument: the object it is a leg of), for example *table* in 'leg of the table'). The examples given show the basic form of Lieber's lexical semantic representation: the skeleton, the body and the two features [+/- material] and [+/- dynamic].

With these two features it is possible to divide a lexical class into two subclasses: for the category SUBSTANCES/THINGS/ESSENCES we have a class of concrete items [+ material] and a class of abstract items [- material]. This is illustrated with the schema below where some examples are given for each subclass:

(12)



The same division applies to the category SITUATION assumed by Lieber. It can be divided into an EVENT class [+ dynamic] and a STATE class [- dynamic]. Again, this classification is given in a schema with some examples:

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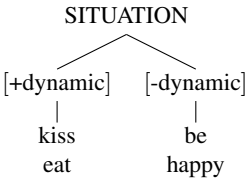
[7] Only those features that will be used for analysing the three suffixes under investigation will be discussed.

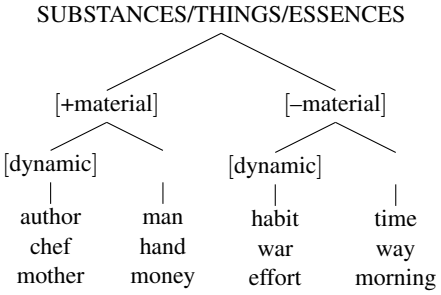
[8] Lieber points out (2004: 23) that these features are primitive, and as such undefinable.

(13)



At first sight, it seems that we have two classification systems, one for SUBSTANCES/ THINGS/ESSENCES (mainly nouns) and one for SITUATION (mainly verbs), or put in other terms, it seems that the two features exclude each other. However, this is not the case, since there are concrete and abstract classes that are "processual in flavor, denoting states, events, actions, or even relations of some sort, and also those which lack a processual flavor" (Lieber 2004: 26). Therefore, a classification where both systems are combined is more adequate:

(14)



According to Lieber, nouns like *author* or *habit* include the processual aspect ('writing a book', 'doing something over and over again') where the telic aspect is most prominent. On the other hand, nouns like *man* or *time* lack the processual aspect, they have only purposes or functions, and the telic aspect of their meaning is not prominent. Thus, for Lieber simplex nouns have the following semantic features: [material] and sometimes also [dynamic]. Verbs and adjectives have the feature [dynamic] but lack the feature [material]. For the subclass of SITUATION the feature [dynamic] is used in a binary way, for the subclass of SUBSTANCES/THINGS/ESSENCES this feature is used in a privative way, to distinguish SUBSTANCES/THINGS/ESSENCES with a processual aspect from SUBSTANCES/THINGS/ESSENCES that lack this aspect.

With the featural system outlined above, Lieber not only sets out to describe simplexes and complexes but also the semantic content of affixes implying that they have actual semantic content. For the suffixes *-hood*, *-dom*[9] and *-ship* the following affixal skeleton is proposed:

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[9] Lieber actually only lists *-hood* and *-ship* in her table (2004: 39) but I think *-dom* could be included as well.

(15) [-material ([ ], <base>)]

These suffixes create simple abstract ([- material]) nouns from concrete and abstract nouns and include the referential argument. According to Lieber they have the same meaning 'abstraction having to do with X' (2004: 39) where X denotes the meaning of the base. As concerns affixes building concrete nouns Lieber makes an interesting observation. At least in English there does not seem to exist a productive affix creating this type of noun, only the so-called semi-suffix (Marchand 1969: 356) *-ware* as in *glassware*, *tinware*, *hardware*, *software*, *flatware*, *Delftware*. She discusses a number of explanations for this gap in the paradigm and concludes that the most plausible explanation is that English has a productive alternative means to build concrete nouns, namely root compounding[10]. Therefore, a suffix for the same purpose is not really needed by the system. This observation also bears on the question of which elements are able to develop into suffixes, and it seems that it would be only those that denote abstract entities. The suffixes *-hood*, *-dom* and *-ship* seem to corroborate this assumption but as we have seen there are also other properties required for this development (they must be relational nouns, occurring with a high frequency). We will come back to this point in the next section.

Apart from the features [+/- material] and [+/- dynamic] two further features, [B] and [CI], are proposed by Lieber to capture aspects of quantity of lexical items, especially for derivations building abstract nouns:

> **[B]**: This feature stands for "Bounded". It signals the relevance of intrinsic spatial or temporal boundaries in a SITUATION or SUBSTANCE/ THING/ESSENCE. If the feature [B] is absent, the item may be ontologically bounded or not, but its boundaries are conceptually and/or linguistically irrelevant. If the item bears the feature [+B], it is limited spatially or temporally. If it is [-B] it is without intrinsic limits in time or space.
>
> **[CI]**: This feature stands for "Composed of Individuals." The feature [CI] signals the relevance of spatial or temporal units implied in the meaning of a lexical item. If an item is [+ CI], it is conceived of as being composed of separable similar internal units. If an item is [- CI], then it denotes something which is spatially or temporally homogeneous or internally undifferentiated.

These two features are needed to distinguish between kinds of nouns quantitatively. The feature [B] distinguishes between count and mass nouns. From the description of the features given above, it can clearly be seen that count nouns are [+B] since they are limited spatially or temporally. Mass nouns, on the other hand, do not adhere to these limitations and are therefore marked [-B]. The feature [CI] distinguishes between nouns that are not composed of individual units and those that have this property. The former nouns have the feature [-CI], the latter nouns have the feature [+CI]. Lieber notes that with these two features a cross-categorial classification of nouns with respect to their quantitative character is possible:

(16) a. [+B, -CI]: singular count nouns *person, pig, fact*
b. [-B, -CI]: mass nouns *furniture, water*
c. [+B, +CI]: group nouns *committee, herd*
d. [-B, +CI]: plural nouns *cattle, sheep*

---

[10] For Roeper & Siegel (1978: 206) root compounds are compounds which neither include a verb base in the head element nor the suffixes *-ed*, *-ing* and agentive *-er*.

Lieber also uses these features to explain the polysemy of suffixes like *-ery* and *-age* (both non-native). She notes that these two suffixes have a particular property, namely that they give rise to concrete and abstract nouns:

(17) *-ery*
collectives: *peasantry*, *tenantry*, *jewelry*, *machinery*, *crockery*, *cutlery*, *pottery*
behavior characteristic of: *snobbery*, *prudery*, *savagery*, *archery*, *midwifery*
place nouns: *eatery*, *brewery*, *nunnery*, *piggery*, *fishery*

(18) *-age*
collectives: *baggage*, *wreckage*, *poundage*, *plumage*, *spillage*
condition of being, behaviour of: *brigandage*
place nouns: *orphanage*, *parsonage*, *hermitage*, *anchorage*

As can be seen from the description of the suffixes, they comprise a large range of meanings including concrete and abstract ones. Lieber accounts for this "odd range of polysemy" (2004: 148) by assuming that the suffixes contribute a collective meaning to their bases, i.e., both contain positive values for the features [B] and [CI] in their skeletons:

(19) *-ery*, *-age*
[+B, +CI ([ ], <base>)]

The suffixes have a central quantitative meaning and add that meaning to the bases, resulting in a derived noun that denotes a bounded collectivity consisting of individuals which are related to the base noun. According to Lieber the polysemy of the suffixes given above arises "[. . .] from the way in which that collective reading is construed on particular kinds of base nouns" (2004: 149). Nouns with a collective reading (e.g., *peasantry*, *baggage*) have nominal bases that are singular count nouns with the features [+B, -CI]. What happens when one of the suffixes is added is that the quantificational class of the noun is changed from [-CI] to [+CI]. Crucial for Lieber's assumption is that the base feature [material] is not changed. Thus, bases with the feature [+material] remain to be concrete nouns and bases with the feature [-material] remain abstract nouns. In the latter case the result is an abstract derivative like *poundage*. As concerns derivations denoting a behaviour, the base nouns of these derivations are names for types of people (e.g., *midwife*) that are construed via metonymic shift. So a base like *midwife* also denotes what a midwife does, and the addition of the suffixes *-ery* or *-age* (in this case *-ery*) adds the collective meaning to these derivations. This implies that the bases of these derivations bear the feature [-material] since they have become abstractions due to these metonymic processes (the affix does not provide the feature [- material]). Derivations denoting place-names like *eatery* and *orphanage* are explained by Lieber by the intrinsic connection between collectivity and place names. In the literature (see Bierwisch 1989, Heine et al. 1991, Pustejovsky 1995, Cruse 2000, Blank 2001a, Pustejovsky 2002) the metonymic shift from 'place' to 'collectivity' has been assumed, sometimes also under the relation 'contained in X'. This relation is taken to explain these derivations. Lieber notes that the reason why this kind of metonymic shift arises is that in English a process of paradigmatic extension takes place[11]

> when there is no particular affix in a language to supply a meaning. When a particular affix is lacking, and at the same time there is pragmatic pressure – that is, real-world need – to create a

[11] See also Booij & Lieber 2004 for a discussion of pragmatic pressure.

> word with that meaning, the needed words are derived by a process of sense extension from the closest productive affixes a language has. (Lieber 2004: 150)

For Lieber (2004) and Booij & Lieber (2004) metonymic processes arise out of pragmatic pressure and can explain part of the polysemous character of suffixes like *-ery* and *-age*, or better derivations with these suffixes.

Apart from the main parts of lexical-semantic representations – skeleton, body, and a number of features – Lieber proposes a mechanism for juxtaposing and concatenating simplexes leading to the creation of complex words. By creating a complex word two referential elements amalgamate into one referential element which is projected into syntax. For Lieber

> Co-indexation is a device we need in order to tie together the arguments that come with different parts of a complex word to yield only those arguments that are syntactically active.
>
> (Lieber 2004: 45)

She starts out explaining this process with compounding since for her this mechanism is mainly responsible for the semantic interpretation of compounds[12]. In this study it has been shown that compounding plays an important role in the development of the three suffixes because the head of the compound is a relational entity requiring another element to co-occur. So for example OE *bisceophād* 'bishop office' is a root compound by showing semantic properties like the non-referentiality of the first member, head-status of the second member (semantic head) as well as the property of being relational. Although it has been claimed that the semantics of compounds is quite free and hard to determine (see Fanselow 1981, Selkirk 1982, Meyer 1993, Trips 2006) there are at least the two properties given above that have to be captured in an analysis. It will be shown that the mechanism of co-indexation can also account for the relational property of the suffixes *-hood*, *-dom* and *-ship* since for Lieber, when a speaker creates a new compound he not only creates a complex word from two bases but also puts together the semantic structures of the two words. This process of juxtaposition involves putting together the two semantic structures of the two bases "in a relation of sisterhood" (Lieber 2004: 49):

(20) $[\alpha\ F_1\ ([\ ])\ ]\ [\beta\ F_2\ ([\ ])]$

Another assumption crucial for Lieber's analysis is that semantic headedness of compounds follows from structural headedness. As regards the referential integration of two bases in compounding processes Lieber (2004: 61) suggests the following principle:

> **Principle of Co-indexation**: In a configuration in which semantic skeletons are composed, co-index the highest nonhead argument with the highest (preferably unindexed) head argument. Indexing must be consistent with semantic conditions on the head argument, if any.

The highest argument of the skeleton is defined as the argument of the outermost lexical function. In the example below two structures for compounding and derivation are given to illustrate Lieber's principle (for concrete examples see below):

(21) a. *Compound*: $[\alpha\ F_1\ ([\ ])\ ]\ [\beta\ F_2\ ([\ ])]$ => (argument of F_2 = highest argument, structural head)

b. *Derivation*: $[\alpha\ F_1\ ([\ ])\ [\beta\ F_2\ ([\ ])]]$ => (argument of F_1 = highest argument)

---

[12] Here again I will only discuss those compounds relevant for my analysis, i.e., root compounds. For other types of compounds see Lieber 2004, chapter 2.

In the semantic structure of a compound the highest head argument is that of F_2 since the argument of F_1 is a non-head. In the semantic structure of a derivation the highest head argument is that of F_1 since the argument of F_2 is subordinated under F_1. More generally, a skeleton that is created by subordination has the argument of F_1 as its highest head argument, and a skeleton created by juxtaposition has the argument of F_2 as its highest head argument.

The principle suggested by Lieber also accounts for the fact that a compound has only one referent although it is built up of (at least) two bases with one referent each. In the process of compounding arguments that share indexes also share reference and interpretation, and are linked to a single constituent in the syntactic structure. Hence, the principle accounts for the linking of arguments within a lexical semantic structure as well as for the referential properties of complex words.

Lieber further claims that her principle of co-indexation implies the complete identification of reference, i.e., the co-indexed units of a complex word will be semantically predictable of the same entity. This can only happen, however, if the skeletons and the bodies of both bases are "sufficiently similar or compatible" (2004: 51). It was noted above that the body is the less formal part of the semantic structure, that it is non-decompositional and that it contains all kinds of encyclopedic information. As concerns root compounds, complete identification is not possible since the skeletons and bodies of the non-head and head are not sufficiently similar (see Meyer 1993). The following example illustrates this (from Lieber 2004: 52):

(22) NN root compound (endocentric) *dog bed*

skeleton	[+ material ([$_i$])]	[+ material ([$_i$])]
	dog	*bed*
body	< natural >	< artefact >
	< animate >	< furniture >
	< canine >	< horizontal surface >
		< for sleeping >

We can see that the skeleton of *dog* and *bed* are identical, they are both concrete nouns with one argument. However, the bodies are quite dissimilar as can be seen with the different features listed under both nouns: *natural, animate, canine* for *dog* and *artefact, furniture, horizontal surface, for sleeping* for *bed*. Nevertheless, the compound *dog bed* has one referent only and this fact is explained by the mechanism of co-indexing: it stands for the co-interpretation of the two arguments. But it only explains two properties of compounds: referentiality and the semantic property of headedness. It does not explain why a *dog bed* is a bed a dog sleeps in and a *day bed* is a bed used during the day. For Lieber, the semantic interpretation of root compounds also involves context and encyclopedic knowledge:

> we do not want our theory to have anything to say about the ultimate lexicalised meanings of root compounds. The claim I make here is that lexical semantics fixes only so much of the interpretation of a newly coined compound, namely that the second base determines the overall headedness of the compound and that the compound as a whole has only a single free element. The rest is free.

Having dealt with the principle of co-indexation and compounding we will now turn to derivation. As shown above, Lieber suggests a subordinating structure for derivations: the structure of the base is embedded under the structure of the affix. Some affixes like *-er*, *-ee* have a salient meaning in common that can be represented with the features [+material, dynamic] in

their skeleton. However, they also display differences, and these differences can be explained with the co-indexation properties of the suffixal arguments. Lieber assumes that when a derivational suffix like *-er* or *-ee* attaches to its base, the argument which is associated with the suffix gets co-indexed with or bound to one of the arguments of its base. As with compounds, the two arguments of the suffix and the base are identified referentially with each other, i.e., they must be predicated of the same referent. Moreover, the suffixal argument may pose specific semantic requirements on its co-indexed arguments, implying that both arguments must be semantically compatible. To illustrate this let us have a look at the structures of the suffixes *-er* and *-ee*:

(23) *-er*
[+material, dynamic ([ ], <base>)]

(24) *-ee*
[+material, dynamic ([$_{\text{sentient, }\underline{\text{nonvol.}}}$], <base>)]

The suffix *-er* places no semantic requirements on its co-indexed argument. In contrast, the suffix *-ee* does, it places a strict requirement of sentience and a less strict requirement of volitionality[13] on its co-indexed argument. In this way, Lieber accounts for the differences between suffixes but she also accounts for the polysemy of suffixes. As concerns the *-er* suffix we find denominal and deverbal derivatives. All derivations with the suffix impose no semantic conditions on its co-indexed arguments, i.e., on the arguments of the base. Thus, according to Lieber (2004: 67f) the semantic structure of *villager* and *writer* are as follows:

(25) *villager*

[+material, dynamic ([$_i$],	[+material ([$_i$])])
-er	*village*

(26) *writer*

[+material, dynamic ([$_i$],	[+dynamic ([$_i$], [ ])])
-er	*write*

In both cases, the co-indexation principle links the 'R' argument of the suffix to the highest argument of the base (the denominal derivation has only one argument, the deverbal derivation has two arguments suppressing the referential argument). Dependent on the thematic interpretation of the base (agentive etc.) the derivation will also have that interpretation.

The suffix *-ee* behaves differently, since, as mentioned above, it imposes semantic conditions on its co-indexed arguments. This is illustrated with the structures below (see Lieber 2004: 63ff):

(27) *biographee*

[+material, dynamic ([$_{\text{sentient, }\underline{\text{nonvol.}}\text{-i}}$],	[-material, dynamic ([ ], [$_i$])])
-ee	*biography*

The structure for the denominal derivation *biographee* shows that the suffix places the requirements of sentience and volitionality on the base. The base *biography* is a relational noun. It has two arguments, the referential argument and the argument syntactically realised

[13] Lieber indicates this weakness by underlining. Nonvolitional is abbreviated here as nonvol.

by a PP (biography of sb.). Since the former argument is nonsentient co-indexing with the head argument is not possible. Thus, the only possible candidate is the latter argument. The result is a concrete dynamic noun whose referent is sentient but nonvolitional. The hypothesis that there are additional semantic conditions results in a different way of co-indexing: in contrast to *-er* derivatives like *villager* or *writer* it is not the highest argument of the base that is co-indexed with the argument of the suffix.

A deverbal derivation like *employee* can also be accounted for under this analysis:

(28) *employee*

[+material, dynamic ([$_{\text{sentient, }\underline{\text{nonvol.}}\text{-i}}$], [+dynamic ([ ], [$_{\text{i}}$])])]

-ee *employ*

Under the assumption that the verb *employ* is an activity verb it has the feature [+dynamic] and two arguments. The first argument is volitional and thus not a candidate for co-indexation. According to Lieber, the second argument is sentient but not really volitional, and therefore it meets the requirements of the head argument better. Hence, both arguments are co-indexed and the head argument shares the patient reading of the co-indexed argument of the base *employ*.

Lieber argues that even challenging derivations like *standee* ('someone who stands in a place where one might otherwise sit') can be explained with her analysis. These derivations are explained by the possibility to violate the principle of co-indexation because it is possible to co-index the head arguments with the least incompatible nonhead argument[14]:

(29) *standee*

[+material, dynamic ([$_{\text{sentient, }\underline{\text{nonvol.}}\text{-i}}$], [+dynamic, +IEPS ([ ], [$_{\text{?vol.-i}}$])])]

-ee *stand*

This is not the preferred strategy and happens only when this is dictated by pragmatic concerns; the rather odd interpretation of *standee* results from the fact that the argument of *stand* can be both volitional and nonvolitional. Moreover, this is the only argument that can be co-indexed with the suffixal argument. Although this argument is not consistent with the base argument it is the argument that is least incompatible. In this way, the violation of the principle of co-indexation explains odd cases like *standee*, and in more general terms, the polysemy of affixes like *-ee* (see also Booij & Lieber 2004).

To sum up, in this section Lieber's analysis was introduced. The structure of lexical-semantic representations was discussed as well as those features that will become relevant for my analysis. It was shown that the representations assumed by Lieber are compositional and that the mechanism of co-indexation is applied to these compositional structures to explain interpretation(s) of derivations. It was further shown that the polysemy of suffixes is accounted for in two ways: 1. either by a mechanism spelt out by the co-indexation principle and its violation; 2. by the quantitative features [B] and [CI] that make a specific contribution to the bases of derivations like *-ery* and *-age*. It is no coincidence that Lieber applies the first mechanism to suffixes with verbal bases and the second mechanism to suffixes with nominal bases: since verbs are assumed to have an argument structure the co-indexing of arguments and the unification of features seems to be a plausible analysis. Since nouns do not have

[14] The feature IEPS stands for 'Inferable Eventual Position of State' and signals the addition of a sequence of PLACES or STATES capturing aspectual classes of verbs. See Lieber (2004: 29f).

argument structure in the same sense, composition of derived nouns from nominal bases follows other rules, in Lieber's terms features of the suffixal skeleton change the features of the skeleton of the nominal base. Note also that in the first case arguments are co-indexed and features of the body of the suffix and base are matched, whereas in the second case features of the skeleton of the suffix and base are matched. Further, Lieber argued that derivations with the two non-native suffixes *-ery* and *-age* gain new meanings denoting 'collectivity' and 'place' by metonymic processes, or more precisely, that the bases of these derivations bear the feature [-material] due to metonymic shifts. This means that processes like metonymy have an effect on the base only and that the base alone is responsible for the new meaning. Therefore, the polysemy of affixes is partly a result of changes in the semantics of the base. We will discuss below that this assumption is problematic. Nevertheless, when dealing with polysemy it is inevitable to consider processes like metonymy because they result in new meanings which are part of the polysemous character of affixes (and simplexes).

Now that we have introduced the main aspects of Lieber's analysis and discussed the most important notions to describe and analyse the lexical-semantic representation of word-formations we will come back to the question of how we can analyse the lexical-semantic representations of the suffixes *-hood*, *-dom* and *-ship* by taking into account the diachronic perspective. It will become clear that due to the diachronic character of the undertaking an extension of Lieber's framework will become necessary.

6.3 Lieber's approach applied to the diachronic data

In this section, Lieber's analysis will be refined and extended to account for the diachronic data presented in chapter 4. A lexical-semantic representation of the suffixes *-hood*, *-dom* and *-ship* in ModE will be proposed synchronically, but we would also like to analyse the development from compound to suffix in her framework. We will adopt the following assumptions: 1. word-formation is compositional, 2. lexical units bear meaning, 3. lexical units are polysemous, 4. the polysemy of lexical units can be explained by assuming a lexical entry for each lexical unit and metonymic shifts, 5. the structure of lexical-semantic representations is a function and one or more arguments of that function (F(A)). The difference between compounds and derivatives is that compounding is the combination (concatenation) of two functions (and their arguments) whereas in derivational processes a function and its arguments (the head) is applied to another function and its arguments (the base). Moreover, the referential argument is always explicitly marked in the structure (R) and is the highest argument in a lexical-semantic representation of a lexical unit. Co-indexation is marked with different indices, i (head) and j (non-head), and in the process of co-indexation the referential argument of the non-head is deleted (the argument R is underlined in the structure). According to these assumptions, the lexical-semantic representation of the compound *dog bed* discussed above looks as follows:

(30) NN root compound (endocentric) *dog bed*

skeleton	[+ material ([$\underline{R}_j$])]	[+ material ([R_i])]
	dog	*bed*
body	< natural >	< artefact >
	< animate >	< furniture >
	< canine >	< horizontal surface >
		< for sleeping >

Since there is a salient relation between R_i and R_j the referential argument of the head is linked to the referential argument of the non-head (as noted above they share reference and interpretation). In the following these assumptions will be applied to the development of the three suffixes under investigation.

It was shown in chapter 4 and again discussed in the introduction to this chapter that the free elements *hād*, *dōm* and *scipe* in OE were relational nouns that all required an argument. Hence, we assume that the three elements all describe a relation between two referents and are thus two-place predicates:

(31) a. *hād*: predicate (x,y) 'office of N' etc.
b. *dōm*: predicate (x,y) 'authority of N' etc.
c. *scipe*: predicate (x,y) 'state of N' etc.

In Lieber's framework these elements have a skeleton with the semantic feature [- material] for they all denote abstract entities. Since the features are functions they take arguments, in our case two arguments. For *hād*, *dōm* and *scipe* the most basic form of their skeletons looks like this:

(32) a. *hād*: [-material ([R_i], [ ])]
b. *dōm*: [-material ([R_i], [ ])]
c. *scipe*: [-material ([R_i], [ ])]

As discussed above, Lieber proposes the feature, [dynamic] to distinguish between events and states. She observes that among the class of SUBSTANCES/ THINGS/ ESSENCES there are those which are processual denoting states, events, actions, or even a relation of some kind, and those that lack this processual flavour. As examples for the former type she gives nouns like *parent, author, boss, war*, etc. Since *hād*, *dōm* and *scipe* are all relational nouns and all denote states or events (it was shown that they may even have event and result readings, see chapter 4), and intuitively involve doing something (have an office, have authority (to judge), create something), they all are processual. Therefore, all three elements also contain the feature [dynamic]. The feature need not be further specified because the fact that it is present is essential. The two features [-material] and [dynamic] make them similar in meaning. Moreover, the feature [dynamic] is also inherent in all nouns (and adjectives) that combine with *hād*, *dōm* and *scipe* since these nouns are required by these elements and are part of doing something (a bishop holds an office, a king has the authority to judge, somebody makes friends, etc.). This semantic property of both modifier and modified (in syntactic phrases and compounds) explains why these elements combine in the first place so easily (apart from the selectional restrictions of *hād*, *dōm* and *scipe*). For nouns and adjectives that occur with *hād*, *dōm* and *scipe* positive and negative values for the feature [dynamic] are tantamount to the

distinction between stage-level and individual-level predicates that we applied to the bases in chapter 5.

For the first stage where *hād*, *dōm* and *scipe* occur as phrasal heads the following structure is assumed:

(33) [-material, dynamic ([R_i], [ ])] [+material, dynamic ([$\underline{R_j}$])]
hād *bisceopes*

The phrasal head *hād* requires an argument which is satisfied by the genitival modifier in the syntax. The referential argument of *office* stands in a salient relation to the referential argument of *bishop* (in most cases it is the relation that modifies the office). At this stage in the development, co-indexation takes place at the phrasal level.

Now let us turn to the analysis of compounds with *hād*, *dōm* and *scipe* as heads. In line with Lieber and with the refinements proposed above, we will assume the mechanism of co-indexation to explain (complete) identification of reference of the two elements. For the compound *bisceophād* I will assume the following representation:

(34) [-material, dynamic ([R_i], [ ])] [+material, dynamic ([$\underline{R_j}$])]
hād *bisceop*

There are two requirements here: a grammatical one and a semantic one. The first one is the requirement of the noun to obtain an argument and to assign a theta-role to that argument. In line with Meyer (1993: 111) this requirement is satisfied here because the first element, *bisceop*, functions as argument (office of bishop). Co-indexation of the highest head argument with the highest non-head argument takes place resulting in identification of reference (the lower argument cannot be a candidate for co-indexation since it is the argument required by the noun, and as such the lower argument). Apart from this process, the semantics of *hād* and *bisceop* need to be matched: since an office is an abstract entity pertaining to persons, the argument should be a noun denoting persons. This requirement is also fulfilled. Moreover, both elements contain the feature [dynamic] since they both take part in the process of holding an office, and hence we gain an interpretation where the first element most suitably matches the semantics of the second element[15]. The same applies to compounds like *cynedōm* or *gebrōðorscipe* and also to those where a relational adjective as first element occurs.

According to Lieber, technically the difference between a compound and a suffix is hierarchical ordering, i.e., the difference between juxtaposition and subordination. Since suffixes are bound they are dependent on the base. Nevertheless, they determine all grammatical specifications of the whole element. Lieber claims that they are hierarchically superior to the base, and the lexical semantic structure will show that hierarchy. Thus, in a lexical-semantic representation the difference between a compound with *hād* and a derivation with *-hood* can be expressed as in (35) and (36):

(35) [-material, dynamic ([R_i], [ ])] [+material, dynamic ([$\underline{R_j}$])]
hād *bisceop*

(36) [-material, dynamic ([R_i], [ ] [+material, dynamic ([$\underline{R_j}$])])]
hood *monk*

[15] Of course, speakers may also create a compound like *monkey office* but here only the selectional restrictions and co-indexation are fulfilled but not the semantic requirement, at least not at its best.

As can be seen from the representations, the only difference between the two structures is the hierarchical organisation. This difference is also marked morphologically, juxtaposition is the concatenation of base + base, and subordination is the concatenation of a base and a bound element. We could also say that this manifests itself in the requirement of affixes to attach to a base which is part of the lexical entry of affixes. Therefore, there is a correlation of lexical-semantic representation and the morphological shape of the word. Below, a tentative analysis of this correlation will be presented.

Derivations with *-hood*, *-dom* and *-ship* in ModE show a range of polysemy which is due to their diachronic development (see above). In the following, we will refer to Marchand's entries for these suffixes because he lists the salient meanings as well as those meanings that arose due to metonymic shifts shown with our diachronic data. Hence, they suit well to provide us with a summary[16]:

According to Marchand (1969: 293) ModE *-hood* has the following meanings:

> The current meaning of derivatives is 'status of -', a major group are words for the general natural conditions of life, as the examples show. Several words, such as *widowerhood, widowhood, wifehood* denote civil states with legal rights and duties. *Nationhood* 1850 and *statehood* 1868 'status of -' have joined this group. With the nuance 'time, period' of the respective state occur *babyhood, boyhood, childhood, girlhood*. Other words may denote a concrete collective body, as **brotherhood**, *ladyhood, maidenhood, manhood, priesthood, serfhood, sisterhood*. 'Nonce-words' with meaning 'status of -' are fairly frequent. Examples are *bearhood, cathood, cubhood, doghood, duckhood, I-hood, selfhood, tailhood*.

Marchand gives the meanings 'status of N' as well as what he calls 'nuances' and what we have called sense extensions 'time, period' and 'collectivity'. The derivation *neighbourhood* with the sense extension 'surrounding area' should also be included. As concerns *-dom* he notes

> The suffix is now very productive, though most of the words are slightly humorous and note exactly recognized as standard vocabulary. This productivity is the result of a revival. Carlyle, inspired by German words in **-tum**, has played a great part in promoting the suffix. He coined such words as **duncedom**, *philosophedom, rascaldom, Saxondom, scoundreldom, tinkerdom*. Other writers followed. In principle, the suffix has preserved the old senses 'status, realm, collectivity', if somewhat changed. [...] The neutral shade 'status, condition' is contained in such words as *tinkerdom* [...], *caesardom*, [...] *stardom* [...] *Officialdom* 'government officials collectively' is also free from any tinge. The literal meaning 'territory, domain, region' occurs with such words as *jarldom* 1820, *czardom* 1841, *sheikdom* 1845 [...] But the chief function of the suffix in this sense group is to form words with the figurative meaning 'land, world of -' as **boydom**, *buttlerdom*, *crossword-puzzledom*, [...] Such combinations may also denote the 'inhabitants of this land' (especially derivatives from personal substantives), characterising them as a community, fraternity, a certain class with its ways: **artistdom**, *beggardom, negrodom*, [...]
>
> (Marchand 1969: 262)

Here he mentions that the suffix has preserved "old senses" that occur "somewhat changed". It was shown in chapter 4 that the salient meanings are the basis for a number of metonymic shifts, and this is exactly what Marchand refers to in his remark. Thus, we find the meanings 'status, realm, collectivity' that are all sense extensions of the salient meaning 'authority of N'. For the suffix *-ship* he assumes that it forms

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[16] I underlined the relevant semantic descriptions in the entries.

> denominal substantives, chiefly from personal nouns with the basic meaning 'state, condition'. The suffix goes back to OE **-scipe, -scype** and has parallels in other Germanic languages. The root is the same as that of OE *scyppan* 'shape, G schaffen'. With personal substantives the suffix conveys the abstract meaning 'state, condition of -, being -'. In a few cases the suffix is added to an abstract substantive as in *clergyship, courtship, kinship, lectureship*, but the implication is that of the first group, as if the basis were *clergyman, courtier [...] kinsman, lecturer*. According to the character of the basis, the implication with substantives derived from personal substantives may also be 'office, dignity, rank of -', as in *ambassadorship, captainship, corporalship* [...] in later use more often 'function, office' as in *speakership* 1653 [...], 'position, role' as in *leadership* 1834, [...], or 'institution, regime', as in *censorship, dictatorship*. In some derivatives from agent substantives the sense expressed is sometimes rather that of 'action', as in *censorship* 'supervision', *editorship* 'superintendence'. This is natural as an agent is connected with an underlying action (though a verb from the same stem as the agent substantive may not be in existence). [...] **Ladyship**, *lordship, worship*, preceded by a possessive pronoun are used as respectful designations or forms of address. [...] When tacked on to a substantive denoting a professional agent or the like, the combinations often have the connotation 'skill, art'. Old English had several collective nouns denoting a community, as *folcscipe* [...] Of the group only **township**, [...] 'the inhabitants of a town' has survived, and few words have been coined. [...] In use are *partnership* 'firm', *membership, trusteeship* 'body of -'. Concrete senses have never much developed. Old English had *wæterscipe* 'piece of water' [...] Modern is *waywodeship* 'province of a waywode'. (Marchand 1969: 345)

Again, Marchand mentions the diachronic development of the semantics of the element, and notes that it has the same root as ModE *shape*. In chapter 4.4, it was shown that the salient meaning of the free element *scipe* must have been 'something created' that allowed nouns with the feature [+material] (nouns denoting persons) and [-material] but, as Marchand points out, those of the latter type imply nouns of the former type, as if the bases denoted persons. Apart from the meaning 'state, condition of N' we find a meaning due to metonymic shift, 'office, forms of address, skill/art' and 'collectivity'. Coming back to Lieber's analysis of the suffixes *-ery* and *-age*, it was shown that she derives all metonymic shifts from these features of the suffixes by assuming that the suffixes contain the features [B] and [CI] with positive values, implying that they contribute a collective meaning to their bases. In this way, the collective meaning of *peasantry*, the meaning denoting a behaviour found with *midwifery*, and place names like *piggery* are all derived from these features that are part of the lexical-semantic representation of the suffixes. However, the assumption that nouns like *midwife* include a collective reading is more than problematic. Why should the meaning of this noun, and in general all nouns denoting types of people, mean 'what midwive**s** do'? A look at the OED entries and at WordNet for *midwife* and *midwifery* corroborate this objection. For the base *midwife* 'a woman who assists other women in childbirth' (also figurative) is given as well as the hypernyms 'nurse' and 'health professional' (i. a.). For the derivative *midwifery* the meaning 'the art or practice of assisting women in childbirth' are given (both in the OED and WordNet). Hence, the meaning is 'what a midwife does' and there is no trace of a collective meaning. Hence, it is not plausible to assume that the bases itself are construed as abstractions; on the contrary, it is the combination of these bases and suffixes like *-ery* that make the derivative abstract.

The assumption that it is both the features of the base noun and the suffix that result in a specific meaning of a derivative is a natural one if we take into account the development of derivatives, i.e., the stage where morphological complexes are still compounds. It was

claimed above that it is the combination and interplay of the meaning of the first element and the second element that results in the meaning of the whole compound. Therefore, I would claim that it is neither the base nor the suffix that exclusively determines the meaning of the derivative. Since speakers are aware of, or better have an intuition about, the semantic usefulness of suffixes (because otherwise we could not explain why a speaker uses one suffix and not the other in a specific context) they also have an intuition about the compatibility of suffix and base. Let us illustrate this assumption with an example. A noun like *boy* denoting a type of person or more precisely 'a male child below the age of puberty' inherently contains the dimension of time and as such also the processual aspect. The suffix *-hood* contains the meanings 'status of N', 'time, period' and 'collectivity'. If a speaker forms the derivative *boyhood* he matches the meanings of both elements to obtain the word she needs in a given context. Based on the meanings of the two elements he will gain the derivative *boyhood* with the meanings 'state of a boy', 'the time of life during which one is a boy' and also 'the collectivity of boys'. And indeed, *boyhood* is attested with all these meanings (see OED). If the speaker uses *boy* with another suffix, e.g., *-dom*, he knows that *boydom* cannot express the same as *boyhood* because the compatibility of the meanings of *boy* and *-dom* are different. Derivatives with this suffix denote the 'status, realm, collectivity of N' and thus *boydom* could have the meanings 'status of boy', 'realm of boy' and 'collectivity of boys'. Crucially, now the development of the element comes into play: according to Marchand, most of the productively built formations with *-dom* have the meaning 'land, world of N' clearly deriving from the meaning 'realm of N'. This also applies to *-hood* ("'Nonce-words' with meaning 'status of -' are fairly frequent", see entry above) and *-ship* ("In use are *partnership* 'firm', *membership, trusteeship* 'body of -"', see entry above). So, apart from the possible combinations of meanings of the base and the suffix, we also have to take into account that some meanings of the suffix are more recent than the others (especially those arising via metonymic shifts) and more frequently used, and that some meanings of derivatives are blocked by others. Moreover, I would claim that some meanings of these formations are completely lexicalised and no longer available to productively built new formations.

Before we will deal with the lexical-semantic representation of derivations with *-hood*, *-dom* and *-ship* we have to recall the polysemous character of these elements or better the rise of the metonymic shifts observed. According to what was said in chapter 4, for *-hood* we assume the prototypical meanings 'office of N'. Since the element mainly occurred (and still occurs) with nouns denoting persons, and since some of these nouns inherently contain the time dimension (as *boy* or *child*), the meaning 'time, period' arose. Moreover, animate objects have the potential to occur singularly or in groups and therefore a collective meaning is always possible (and from that collective meaning the meaning 'surrounding area', i.e., region where neighbours occur, could arise). Thus, in line with Lieber I assume that *-hood* as well as *-dom* and *-ship* change the quantificational class of the noun they attach to. As concerns *-dom* we assume 'authority of N' to be the prototypical meaning, and the meanings 'judgement, status', 'territory, realm' as well as 'collectivity' can straightforwardly be derived from it via metonymic shifts (if somebody has the authority, she has the power to judge; the authority is generally restricted to a territory or realm). For *-ship* we assume a prototypical meaning 'status of N' which is the result of creating something. A certain status can imply an office where duties are performed, and a person holding such an office or rank can be addressed with a title. Moreover, there are bases that denote persons with a certain skill like *penman* or *craftsman*, and these nouns inherently denote a professional agent. In combination

with the suffix these nouns may thus denote 'skill/art' of these persons. Finally, we also find the meaning 'collectivity' with *-ship*-derivations for the reasons given above.

If we applied Lieber's analysis of the suffixes *-ery* and *-age* to our suffixes we would have to assume that the skeleton of *-hood*, *-dom* and *-ship* contains the features [+B] and [+CI] because they all contribute a collective meaning to their bases. Further, the meanings 'place' ('surrounding area' *-hood*, 'territory, realm' *-dom*) could also be derived from these features. What remains is the meaning 'time, period' for *-hood* and the meanings 'office' and 'skill, art' for *-ship*. If we took the feature [dynamic] to be included in the lexical-semantic representation of the three suffixes, we could say that a base like *president* denoting an office and having a stative character could change the feature of the suffix to [-dynamic] and that 'skill, art' is a metonymic shift deriving from that feature. Hence, we can propose the following skeletons for the three suffixes:

(37) [-material, dynamic, +B, +CI ([R_i], [ ], <base>)]
hood

(38) [-material, dynamic, +B, +CI ([R_i], [ ], <base>)]
dom

(39) [-material, dynamic, +B, +CI ([R_i], [ ], <base>)]
ship

As can clearly be seen, the representations are identical for the three suffixes, and this is actually the state of affairs we find in most descriptions of *-hood*, *-dom* and *-ship*: they are all suffixes building abstract nouns denoting the meaning 'state/condition of N'[17]. Although the suffixes form a paradigm building abstract noun, it became clear that the three suffixes do not mean the same because they originally had different meanings resulting in different metonymic shifts. So *penmanhood*, if it existed, could never mean 'skill in writing' because *-hood* does not have this meaning. As discussed in chapter 4.4, the OED states that in ModE a suffix *-manship* even exists to denote skill in a subject or activity, a suffix that developed from a reanalysis of a base noun containing the element *man* + *-ship* clearly showing that it is (part of) the base and the suffix that denote this specific meaning. Further, in chapter 5 the alleged rivalry of the three suffixes was discussed and it was shown with data that what we find is in fact not rivalry or competition because the suffixes do not have the same meaning(s). These semantic differences between the three suffixes must be encoded in their lexical-semantic representation.

First, let us give some motivation for the features assumed for the suffixes. Since all three suffixes denote abstract entities we will adopt the feature [-material]. Derivatives with the three suffixes predominantly occur with bases denoting persons, which are inherently concrete items with the feature [+ material]. The process of derivation results in derivatives that are abstract entities with the feature [-material]. I do not assume here that these bases change their feature value because this is counter-intuitive. Rather, I would assume that the process of subordination, and more precisely, co-indexation of subordinating structures, implies exactly this (or put in other terms, the property of being a base). The operation during

[17] Dalton-Puffer (1996: 121) puts this slightly different: for her all three suffixes show the cognitive concepts OBJECT (+property) and NUMBER which are mapped onto the derivational categories Nomina Essendi and Collective Noun.

which the highest head argument is co-indexed with (one of) the non-head argument(s) yields identification of reference, and it is the head argument that determines the referent as well as the syntactic category of the derivation. Since the referents of the derivations with *-hood*, *-dom* and *-ship* are all abstract entities with the feature [-material] the inheritance of this feature to the whole derivation is part of the co-indexing process. Further, I think it is a natural property of nouns denoting persons that they have the potential to denote collectivity (like all singular count nouns), even more so if a certain relation is implicitly given as in *brother* or *friend*. Thus, I assume that the meaning 'collectivity' is possible for all nominal bases of that type when they occur with these suffixes which contain the features [B] and [CI]. Thus, these are the semantic features that are part of the lexical-semantic representation of all three suffixes. The differences between these elements are also part of the lexical-semantic representation. It was shown that the once free morphemes denoted different entities and that they developed different meanings via metonymic shifts due to their original meaning. Although speakers are of course not aware of the diachronic development of *-hood*, *-dom* and *-ship* they are aware of the outcome of that development because they intuitively know the semantic differences between these elements (i. e., the semantic layering). If we try to think of a feature that comprises all meanings that occurred and occur with each of the elements we can suggest the following representations[18]:

(40)
a. *-hood*: [state] 'a distinguishing feature of one's personal nature' (meanings 'status, office, rank', metonymies 'state, time')
b. *-dom*: [process] 'possession of the qualities required to do something or get something done' (salient meanings 'authority, judgement', metonymies 'territory, realm')
c. *-ship*: [[achievement] 'result of a process of creating' (salient meanings 'created thing, '(resultant) state', metonymies 'function, forms of address, skill/art')

As concerns the [state] feature, in OE the noun *hād* denotes the office or rank of a person, i.e. a state the person is in. Moreover, the nominalisation *hādung*[19] exists denoting the act of ordaining someone. These nominalisations always have an event reading as opposed to *hād* denoting a resultant state. If speakers wanted to refer to the state of a person in office, they used *hād*, if they wanted to refer to the event of ordaining a person they used the nominalisation.

(41) þæt hē þǣr onfenge **ærcebiscopes hāde**.
that he there received archbishop's office

(Bede_3:21.248.11.2540)

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[18] The question of whether the three features [state], [process] and [achievement] can be expressed with a binary feature like for example [+/-state] or with Lieber's feature [+/- IEPS]I will leave for future research.

[19] *Hadung* consistently occurs with *on* 'during' or a temporal adverb denoting the time before or after the act of ordaining. This finding shows that it clearly has an event reading. I also found few occurrences of *hading* with the same meaning.

(42) and on ælcere **hādunge** ge on diaconhāde ge on prēosthāde, ge
and during each ordination whether in deacon-office or in priest-office or
on biscophāde æfre sē ðe ðāær gehādod bið, hē bið gesmyrod mid
in bishop-office always he who there ordained is he is anointed with
gehālgodum ele.
consecrated oil

(ÆHom_II,_1:7.162.137)

The motivation for the [process] feature for *dōm* derives from the observation that it is the only noun within the set of the three nouns (*hād*, *dōm* and *scipe*) which is deverbal, it is derived from the verb to *do* (IDE root *dhe/dho*) denoting agentive processes. In OE, *dōm* could have an event reading:

(43) Hē wæs sōðfæst **on dōme**, and estful **on bodunge**, ...
he was true in judging and gracious in preaching

(ÆLS_[Martin]:294.6149)

In the example in (42) the preposition *on* as well as the conjoined clause including *on bodunge* show that two actions are denoted here with *dōm* and *bodunge*: judging and preaching. Also note that the word denoting 'preaching' is a nominalisation with *-ung* which does not exist for *dōm* in OE probably because *dōm* itself can denote event readings.

Finally, the feature [[achievement] for *-ship* can be derived from what we have said so far. It has parallels with OHG *schaft* in that OE *scipe* denotes the result of a process of creating (see Messing (1917a) and the discussion in 4).

(44) and ðær frið and **frēondscipe** heom betwēonan gefæstnodan,
and there peace and friendship them between concluded

(ChronC_[Rositzke]:1055.21.2038)

Frēondscipe denotes the result of a process of creation, namely the deliberately created state of being friends. These (privative) features include all differences in meaning found between derivations with *-hood*, *-dom* and *-ship* and result from their diachronic development. Therefore, I suggest to define them as an imprint of their development because they represent a distinctive influence on the lexical-semantics of these elements. I propose the following lexical-semantic representations of the three suffixes:

(45) [-material, dynamic, +B, +CI, state ([R_i], [ ], <base>)]
hood

(46) [-material, dynamic, +B, +CI, process ([R_i], [ ], <base>)]
dom

(47) [-material, dynamic, +B, +CI, achievement ([R_i], [ ], <base>)]
ship

This differentiation is based on a new, more abstract dimension, the dimension of aspect. The assumption to have these features is inevitable to adequately explain the behaviour and semantic nature of derivations with *-hood*, *-dom* and *-ship*. Moreover, the nature of underdetermination attributed to suffixes is also nicely accounted for since they only mark the

semantic frame but not a specified concrete semantic outcome. What happens in the process of derivation is that the meanings of the base and the suffix are matched. The meaning of the suffix that best matches the meaning of the base will be the meaning of the derivation. It will be shown below that there are some bases where only one meaning is possible and bases where more than one meaning occurs.

What is equally important is to understand that the semantics of these derivations is based on a semantic interrelation between the bases and the suffixes. In that respect, I think compounds and derivations behave quite similarly because in both cases we can find a number of meanings but nevertheless the rightmost element determines the product of compounding and derivation semantically and structurally. From my point of view, this does not come as a surprise since derivations developed from compounds.

Now let us apply these assumptions to some concrete examples. If *-hood* is attached to a noun denoting a person it depends on the semantics of the base noun which meanings of the derivations are possible[20]:

(48) [-mat., dyn., +B, +CI, state ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$], [ ])]
hood *boy*

For the derivation *boyhood* we assume that it denotes an abstract noun with the feature [-material] and the potential to denote a collectivity of boys. Further, the noun *boy* denotes 'a male child below the age of puberty' including the time dimension, as discussed above. This meaning is matched with the meaning 'state/condition of N' included in [state][21]. Thus, the possible meanings for the derivation *boyhood* are 'state of being a boy' and 'time of life of a boy'. The difference between a derivation like *boyhood* and *victimhood* is the time dimension lacking in the former:

(49) [-mat., dyn., +B, +CI, state ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$], [ ])]
hood *victim*

The noun *victim* denotes 'a unfortunate person suffering' (from something, which is why I assume two arguments), and this meaning is matched by the feature [state] which includes that meaning (actually it is the only meaning that matches the meaning of *victim*) and therefore the derivation denotes 'the state of being a victim'. Since a noun like *victim* does not include the time dimension a derivation with this meaning cannot occur.

If a noun like *priest* attaches to *-hood* we assume the following lexical-semantic representation:

(50) [-mat., dyn., +B, +CI, state ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$], [ ])]
hood *priest*

The difference between *victimhood* and *priesthood* is that the noun base *priest* not only denotes a person but a person acting as spiritual leader. This meaning is matched with the meaning 'office' included in [state]. Thus, *priesthood* has several meanings, it denotes the

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[20] In the following, the feature [material] and other features will be abbreviated in the structure (as mat., dyn. etc.).

[21] Note that all the salient meanings of nominal bases like 'time', 'spiritual leader', 'member of the genus Canis', 'authority', 'territory', 'skill' are included in the relevant features ([state] etc.).

office of a priest and also resulting from a metonymic shift ‘(mock) title’. Since *priest* is a (living) entity the meaning ‘state’ is also included and therefore the meaning ‘state/condition of being a priest’ is possible. Finally, as discussed above the meaning ’collectivity’ can also occur.

What about nominal bases that denote an animate entity which is non-human, like e.g. *doghood*?

(51) [-mat., dyn., +B, +CI, state ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
hood *dog*

The noun does not denote a person but an animate entity, *dog* has the meaning ‘a member of the genus Canis’. Thus, the only meaning that matches a meaning of *-hood* is ‘state/condition’ and thus the derivation *doghood* denotes ‘the state/condition of a dog’. Again, the base also has the potential to denote collectivity. The difference between *doghood* and *dogdom* lies in the matching of features of *dog* and *dom*:

(52) [-mat., dyn., +B, +CI, process ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
dom *dog*

It can easily be seen that the only meaning of *-dom* that matches the meaning of *dog* is ‘status’, all other meanings imply persons. Therefore, the derivation *dogdom* could mean ‘the state/condition of a dog’ and the metonymies resulting from it. In fact, the only meaning that occurs is ‘world of dogs’ (realm of dogs), which is also found for other productively *-dom*-derivations. It is plausible to assume that the meaning ‘the state/condition of a dog’ is blocked by *doghood* and that metonymic shifts, being the most recent senses of derivations, occur more frequently with productively built formations. This also applies to the derivative *priestdom*:

(53) [-mat., dyn., +B, +CI, process ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$], [ ])]
dom *priest*

As noted above, *priest* denotes a person acting as spiritual leader. If *-dom* attaches to this noun this meaning is matched with the meaning ‘authority’ included in [process]. Thus, one meaning of *priestdom* is ‘authority of a priest’. The status of a priest implies a certain authority or office and therefore the metonymic shift ‘title’ (according to the OED only used mockingly) is also possible. The OED notes that both meanings are obsolete probably due to the fact that *priesthood* blocks the former meaning and *priestship* the latter (because they comprise these meanings in their features [state] and [achievement]). What remains is the meaning ‘rule, dominion of a priest’, and it is this meaning that is still available today for *priestdom*.

A similar case is the formation *kingdom*. The base noun denotes a person and thus all meanings contained in [process] are possible. The difference between *priestdom* and *kingdom* again lies in the semantics of the base nouns: *king* denotes ‘a nations ruler or head of state usually by hereditary right’; since kings are not ordained in the sense that priests are, the difference in meaning is that *kingdom* could not have the meaning ‘office of king’. Instead, we find the meanings ‘kingly authority’ and ‘a territory subject to a king’.

If the meanings of *doghood* and *dogdom* are compared we find differences in meaning, and this was illustrated above. But what is the difference between these two derivations and *dogship*?

(54) [-mat., dyn., +B, +CI, achiev. ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
ship *dog*

The suffix *-ship* derives from the same root as ModE *shape* and originally denoted 'created thing' which also implies the state this created thing has as a result of the process of creation. On the basis of this meaning the other meanings given for *-ship* could develop. Now if this element is attached to a noun like *dog* the meaning that matches the meaning of the suffix best is 'state of N', and this is what we find for *dogship*. The nominal base in *lordship* denotes a person and therefore the possible meanings for the derivation differ from those of *dogship*:

(55) [-mat., dyn., +B, +CI, achiev. ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
ship *lord*

The noun *lord* denotes 'a person who has general authority over others' and 'a member of the aristocracy'[22]. These meanings are matched with the meaning [achievement] of *-ship*. Since the suffix includes the meaning 'state of N' the derivation denotes 'the state of a person who has general authority over others and is a member of the aristocracy', which implies the function and dignity of a lord. Moreover, the metonymic shift 'title' as well as 'land of a lord' (place) occurs. Thus, depending on the base we sometimes find also the meaning 'place' with *-ship*-derivations (see also *kingship*).

Although a noun like *friend* also denotes a person it nevertheless has a meaning different from *lord* or *king* since its meaning includes a relation between friends. This fact also bears on the meaning of the derivation *friendship*:

(56) [-mat., dyn., +B, +CI, achiev. ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$] [])]
ship *friend*

As mentioned above, *friend* denotes a person that another person knows well and regards with affection and trust. This noun is clearly relational and thus has two arguments. In chapter 4.4 it was assumed that *friendship* denotes the result of making friends which is the state of being friends. Apart from this meaning the derivation used to have an active reading 'a friendly act' which alludes to the origins of *-ship*. Finally, a collective meaning is also possible. Compared to a derivation like *penmanship*, however, it cannot denote the meaning 'skill/art' because this meaning only occurs in nominal bases like *penman*:

(57) [-mat., dyn., +B, +CI, achiev. ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$] [])]
ship *penman*

Bases like *penman*, *craftsman*, *lifeman*, etc. form a class because they all denote 'a professional skill' (of writing, etc.). If a base from this class serves as base for a *-ship*-derivation the whole derivation denotes 'skill in a subject or activity'.

Finally, the assumptions made above for the lexical semantics of derivations with *-hood*, *-dom* and *-ship* are illustrated below with three productively built formations currently found on the web:

(58) Indeed, the Serbs in Bosnia feel themselves equally an essential part of the *Serbdom*.

[22] Note that *lorddom* also exists, with the meaning 'world of lords'

(http://members.tripod.com/cafehome/serbdom-eng.htm)

(59) The unity of *Serbhood*, so that the national objectives could be realized as completely and well as possible, is best achieved by the definition of an integral Serb national programme, which must bring together the best intellectual forces of the Serb people, under the state sponsorship. (http://www.haverford.edu/relg/sells/reports/srpclean2.htm)

(60) We should not forget that the *Serbship* and Croatship are identified only in the 19th century by the Roman Catholics and Orthodox, after which Serbs and Croats, as they pleased, pushed their own nationality. (http://www.ddh.nl/org/poo/uk/culture/book1.htm)

Apart from bases that denote animate entities, a number of bases of the type sortal noun are found combining with the suffixes (see above). Interestingly, these derivations are restricted in meaning which can be explained by the origins of the suffixes: they all denote abstract states pertaining to persons as well as the meanings that arose via metonymic shifts. Hence, if the suffix *-dom* attaches to a noun like *villa*

(61) [-mat., dyn., +B, +CI, process ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
dom *villa*

matching of meanings (features) is hard to accomplish because the two elements have hardly anything in common. What happens is that the suffix *-dom* functions as a nominaliser building abstractions of these nouns, and that the meaning which does not require a person denotation is matched with the meaning of *villa*. The meaning most often found in productively coined formations with *-dom* is 'world of N', it is the most recent meaning that arose via a metonymic shift. Hence *villadom* has the meaning 'world of villas' (as well as a collective meaning). This is also borne out for the other suffixes:

(62) [-mat., dyn., +B, +CI, state ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
hood *thing*

(63) [-mat., dyn., +B, +CI, achiev. ([R_i], [ ], [+mat., +B, -CI, state ([$\underline{R_j}$])]
ship *cloud*

Due to what was said above, the derivations *thinghood* and *cloudship* present abstractions of *thing* and *cloud* and occur with the only meanings possible for these derivations: 'state or character of being a thing' and 'state/condition of being a cloud'. The productive occurrence of these formations marks the final stage in the development of *-hood*, *-dom* and *-ship* into suffixes.

Coming back again to Marchand's observations cited above, he notes that the current meanings are 'status of N' (*-hood*) 'land, world of N' (*-dom*) and 'state, condition of N' (*-ship*). By looking at all possible meanings of these elements this finding implies that only metonymies occur with productively built formations. The other meanings discussed are often old meanings that seem to be less available (or no longer available) which might be due to lexicalisation (in the diachronic sense). According to Lieber we would have to assume then that some of these formations are lexicalised which would show in their lexical-semantic representation as substantial and distinctive bodies having developed over time and being a sign for their lexicalised status. Thus, for a formation like *læcedōm* 'medicine' we suggest a representation as in (64)

(64) [+material, +B, -CI, ([R *shape, colour, function, etc.*])]
læcedōm

Since it is a lexicalised formation occurring with a high frequency (in OE) it is stored as a simplex. In processing it is not decomposed but retrieved via the whole-word route. It shows idiosyncratic meaning which might be different for individual speakers. This meaning is part of the body of a lexical element. In line with Lieber I assume that lexicalisation is an item-to-item process, i. e., among all formations with these suffixes found in a corpus some of them have a lexicalised status. Moreover, some of them have only reached compound status but it was shown that it is hard to draw the line between those formations and true derivations.

The analysis presented above accounts for the lexical-semantic properties of ModE *-hood*, *-dom* and *-ship* and the several stages in the development of these elements. However, what we have not dealt with so far is the question of why free morphemes develop into suffixes. What is the trigger for this morphologisation, i.e., why do some elements have the capacity to become bound elements? In the following, I will provide a tentative answer to this question.

It was noted above that one crucial factor for this development is frequency. Another is, I will claim, the semantics of these elements. If we recall the starting point of the development, the elements *hād*, *dōm* and *scipe* occur as free elements and function as phrasal heads as well as second members in compounds (compound heads). The lexical-semantic representations for these structures are given below again (for *hād*):

(65) [-mat., dyn., +B, +CI ([R_i], [ ])] [+mat., dyn., +B, -CI ([$\underline{R_j}$])]
hād *bisceopes*

(66) [-mat., dyn., +B, +CI ([R_i], [ ])] [+mat., dyn., +B, -CI ([$\underline{R_j}$])]
hād *bisceop*

For both the phrase and the compound the structure is the same, the head *hād* bears the features [-material], [dynamic] , [+B], [+CI], and the modifying noun *bisceop* bears the features [+material], [dynamic], [+B], [-CI]. Since the head noun (compound head) determines the features of the whole phrase (compound) [$_{DP}$ *bisceopes hād*] and [$_{N^\circ}$ *bisceop hād*] show the features [-material], [dynamic], [+B], [+CI]. There are also modifiers (non-heads) that are individual-level predicates either having a negative feature specification for [dynamic] (or no specification for this feature at all):

(67) [-mat., dyn., +B, +CI ([R_i], [ ])] [+mat., -dyn., +B, -CI ([$\underline{R_j}$])]
hād *cild*

Again, in the process of compounding all feature specifications of the compound head percolate to the whole morphological complex. Phrases and compounds displaying an adjectival modifier (non-head) where the adjective is used predicatively (relational adjectives) have the same lexical-semantic representation:

(68) [-mat., dyn., +B, +CI ([R_i], [ ])] [+mat., dyn., +B, -CI ([$\underline{R_j}$])]
hād *cynelica*

Relational adjectives can also be either of the stage-level or of the individual-level type (see chapter 5) and therefore bear the feature [+dynamic] or [-dynamic]. At this initial stage there

is variation with respect to the specifications for the feature dynamic but since *hād* as free element has the function of a phrasal head (or compound head) it determines the properties of the whole phrase (morphological complex) resulting in a deletion of this variation in feature specification. A change occurs when in ME 1. relational adjectives as non-heads vanish, 2. a large number of adjectives used attributively occurs, 3. these adjectives can predominantly be classified as being of the stage-level type. These changes have a bearing on the feature specifications of the features [material] and [dynamic]:

(69) [-mat., dyn. ([R_i], [ ])] [-mat., dyn. ([$\underline{R_j}$])]
-hēde *litel*

Formations like *litelhēde*, which constitute the majority of formations with adjectives in ME, bear the features [-material] and [dynamic] and thus match the feature specifications of the head *-hēde*. It was shown above (chapter 4) that at that period of time we find the same situation for all three elements *-hēde*, *dōm* and *-shipe*, namely high frequencies for the adjectival pattern. I propose that this finding marks a reanalysis on the level of the lexical-semantics of these elements: since formations of this type occur with high frequencies (apart from the nominal pattern) redundancy of the same feature specification occurs. In (6.3) both *-hēde* and *litel* display the same feature specifications, [-material] [dynamic]. This redundancy is resolved through reanalysis by marking one of the feature specifications only once in the lexical-semantic representation:

(70) [-mat., state ([R_i], [ ])] [-mat., dyn. ([$\underline{R_j}$])]
hēde *litel*

After reanalysis only the base bears the feature [dynamic] and assigns this feature to the whole formation. Still, *-hēde* is the head determining the features of the whole formation, because it is the element that bears the feature [state].

Evidence for this reanalysis is the bound status of *-hēde* (*-hood* etc. in ModE): morphological boundedness occurs because *-hēde* needs the feature specification of the base that it would otherwise lack. In this way, *-hēde* is semantically dependent on the base, and this state of dependency affects the morphological level. Under this assumption, we could say that the trigger for morphological boundedness is the lexical-semantics of *-hood*, *-dom* and *-ship*.

6.4 Conclusion

In this chapter, Lieber's (2004) analysis was introduced and it was shown that an extended version of her analysis serves well to account for the diachronic data presented in this study. The development of the three derivational suffixes thoroughly described in chapter 4 can be adequately analysed in this framework and the analysis nicely displays their lexical-semantic (and morphological) properties. The lexical-semantic representations proposed show the interplay between meaning of base and suffix, i.e., the base is sensitive to the meaning of the suffix, it selects the meaning that matches best the meaning of the suffix which implies that suffixes are underspecified, polysemous, and that this property can be explained with the

development of the suffixes (there is no such thing as homophony of different suffixes). It further implies the assumption that the salient meanings of suffixes (and their metonymies) contribute to the meanings of derivations, hence they bear lexical meanings. So, from a theoretical point of view the lexical semantic properties of lexemes (words, free morphemes) and suffixes can be described in the same way.

In the course of this study it became clear that it is the semantics of the base and suffix which determines the property of a derivation and not the syntactic category information in the input. This insight is also found in Lieber's study, it became clear that she does not make reference to the categorial information of bases in derivational processes, and hence her analysis can be seen as a mere semantic approach. All these findings have consequences for a better understanding of word-formation, and in more general terms for any theory of morphology. In the following chapter these consequences will be addressed in detail.

7 Theoretical consequences of morphological change

7.1 Introduction

The theoretical consequences that arise from my study on morphological change are (at least) twofold: first, they bear on what has been assumed so far for the lexical properties of derivational suffixes and more fundamentally about the form-content relation of morphological units; second, the development shows the change from a syntactic structure to a morphological structure in the course of which syntactic properties are lost. Thus, the combination of syntactic elements is different from the combination of morphological elements which clearly speaks against studies assuming word syntax. The schema in (7.1) presents a summary of all processes that can be observed during the development of the three derivational suffixes *-hood*, *-dom* and *-ship* (again exemplified with the development of *-hood*):

OE *hād*		**ME *childhōd***		**ModE *childhood***
free morpheme	→	compound	→	derivative
desyntactisation	→	morphologisation		
stressed	→	reduction in prominence	→	unstressed
Meaning expansion through the development of polysemies				
Salient meaning(s) plus metonymies				

Table 7.1: *Schema of all processes involved in the development of suffixes*

As noted in chapter 1 three stages can be defined: a stage where the element is the syntactic head of a phrase, a stage where it is the morphological head of a compound and a stage where it is the morphological head of a derivation. This development can be analysed as an instance of desyntactisation or morphologisation: a syntactic structure loses its syntactic properties and develops into a morphological structure. The word-formation rules for derivations with the suffixes *-hood*, *-dom* and *-ship* in ModE are a reflex of that syntactic structure (see below and Trips 2006). This process falls under phenomena described by Givón (1971) with his famous quote "Yesterday's syntax is today's morphology".

Apart from changes on the morpho-syntactic level we also find a number of phonological changes affecting vowel quality, quantity and the structure of the phonological word, which we will, however, leave aside in this discussion, and the semantic changes thoroughly described and analysed in chapters 4 and 6. To briefly summarise this type of changes we can say that in OE the three nouns developing into suffixes bear abstract meanings: *hād* 'office, rank', *dōm* 'authority, judgement', *scipe* '(resultant) state, condition'. As heads of compounds they lack referentiality, as suffixes their salient meanings develop metonymies and

are extended to a general meaning ‘state, condition of N’ the synchronic result of which is polysemy:

(1) a. *-hood*: [state] ‘a distinguishing feature of one’s personal nature’ (salient meanings ‘status, office, rank’, metonymies ‘state, time’)
b. *-dom*: [process] ‘possession of the qualities required to do something or get something done’ (salient meanings ‘authority, judgement’, metonymies ‘territory, realm’)
c. *-ship*: [achievement] ‘result of a process of creating’ (salient meanings ‘created thing, ‘(resultant) state’, metonymies ‘function’, ‘forms of address’, ‘skill/art’)

The conclusion that has to be drawn from all the findings discussed is that morphological complexes, i.e., compounds and derivations, have a structure different from syntactic complexes, and that derivational suffixes have lexical meaning contributing to the meaning of derivations. To illustrate the latter point again, let us compare the examples below where in (2) we have two occurrences of the noun *king* whereas in (3) to (5) we have three derivations with *king* as the base:

(2) a. *This authority is normally the sovereign body in the state, such as a **king** or popular assembly, although in practice this authority might be delegated to or assumed by another body or individual.*
b. *Partly a public relations exercise to enhance the **king**’s status, the coin was intended to convey the majesty of the throne and the dignity of the monarch – hence the name sovereign.*

(BNC)

(3) *Panchatantra is a collection of ancient Indian tales written by a wise man to teach the king’s children about **kinghood**.*

(http://a.parsons.edu/ radhika/thesis/briefcase.swf, 22/5/08)

(4) *An introduction to fungi and some of the divisions which make up this **kingdom**.*

(http://www.perspective.com/nature/fungi/ 22/5/08)

(5) *We beseech you, your **kingship**, to institute a system of hereditary peerage based upon merit and loyalty (i.e., campaign contributions) so that we peasants will have someone to look up to other than the tawdry celebrities on TV.*

(http://blog.peakdems.org/2005_12_25_peakdems_archive.html, 22/5/08)

For the word-formations the following meanings can be assumed (see OED) : for *kinghood* ‘the state of being a king’, for *kingdom* ‘the realm of fungi’ and for *kingship* ‘the form of address of a king’. Compared with the examples in (2) *king* denotes ‘usual title of the male sovereign ruler of an independent state, whose position is hereditary, [. . .]’ (OED), a meaning clearly different from the word-formations with *-hood*, *-dom* and *-ship* regardless of the contexts the elements occur in. These differences have to be attributed to the addition of meaning from the suffixes. As concerns the role categorial information in the input allegedly seems to play the examples also serve well to show that this assumption is problematic since the word-category does not change but still the noun *king* behaves differently from derivations with this base, i.e., the input is different from the output. This state of affairs cannot be explained with syntactic category information in the input but has to be explained with the lexical semantics of the elements. In the next section, we will turn to the role of this type of information and show that it is less important than it is assumed in the prevailing literature.

7.1.1 The role of semantics in derivational morphological rules

In standard word-formation rules or lexical entries for affixes predominantly found in the traditional and the generative framework the syntactic category of the input plays a crucial role (Marchand 1969, Aronoff 1976, Selkirk 1982, Lieber 1992, Bauer 2002, Plag 2003b). On the one hand, this is implicit in formalisations of word-formation rules

(6) Word-formation rule for the prefix *-un*
phonology: /ʌn/X
semantics: 'not X'
base: X = adjective (Plag 2003b: 31)

where it is assumed that they are subject to syntactic restrictions, i.e., they have access to the syntactic properties of the base (given here with "base: X = adjective"), the base is a member of the major syntactic categories N, A and V, and in general suffixes do not attach to all possible bases. This has been explicitly stated by Aronoff (1976)

> "The base is always specified syntactically. So, for example, the rule which attaches the suffix #ness (*redness*, *proudness*) operates only on adjectives. Finer syntactic distinctions than the merely categorial are possible, and matters of subcategorization are commonly referred to." (Aronoff 1976: 47)

most prominently in his famous Unitary Base Hypothesis (UBH):

> "We will assume that the syntacticosemantic specification of the base, though it may be more or less complex, is always unique. A WFR will never operate on this or that. The seeming counterexamples to this that I have found can be analyzed as separate rules whose operations happened to be homophonous." (Aronoff 1976: 48)

Similar statements are also found by many others like, e.g., Berg (2003) and Heyvaert (2003):

> "Affixes are sensitive to the word-class of the stem to which they attach." (Berg 2003: 286)

> "… an account of -er nominalizations … will have to distinguish deverbal -er nominals from -er nominals with non-verbal bases." (Heyvaert 2003: 105)

Since the UBH allows bases of one category only, it has to assume homophonous affixes as soon as an affix occurs which selects more than one category which is quite often the case. As a conclusion, the UBH was found to be too strong and a number of refinements have been suggested. For instance, Scalise (1984: 143) proposed a modified version of Aronoff's Unitary Base Hypothesis which states that instead of the categories N, A and V, the syntactic features [+/- V] and [+/- N] of the base are selected by an affix. In this way he claims to be able to correctly describe the behaviour of all Italian suffixes but one but the question remains whether this also holds cross-linguistically.

From this brief discussion, it becomes clear that the syntactic-category information in the input is seen as playing the crucial part in word-formation rules, that the input semantic information is largely ignored and that the diachrony of derivational processes is ignored which leads to postulating different affixes that are homophonous. However, if we do take the diachronic perspective into account, we have to come to the conclusion that syntactic category information does not play as important a role as assumed if at all, that it is the semantics of the base that is crucial, and that homophones do not exist. In the following, I will give some evidence with OE data. The examples show *hād* modified by a noun in (7) and

by an adjective in (8). Note that both the noun and the adjective are relational (the nominal and the adjectival modifier have the same meaning):

(7) … wǣron hēo bēgen of **munuchāde** in biscophād gecorene.
were they both of monk-rank in bishop-office chosen
(Bede_4:16.300.7.3032)

(8) … Þætte Cynred Mercna cyning & Offa Eastseaxna cyning on [$_{\text{Dat}}$
that Cynred Mercian king and Offa Eastsaxon king in
munuclicum hādum] to Rōme becōm, …
monastic office to Rome came
(BedeHead:5.24.12.137)

In (7) the Noun + Noun compound shows *munuch* ‘monk’ as non-head, in (8) the syntactic phrase contains the head *hādum* modified by the adjective *munuclicum* ‘monkly’. In both cases the meaning is ‘rank of a monk’ so both the noun and the adjective stand in the same relation to the head noun denoting rank. It was shown in chapter 4 that this is the starting point of the development of the suffixes, which can also be illustrated for *-dom* and *-ship* and for a number of other suffixes. Therefore, it is not plausible at all (and not empirically founded) to assume two types of *-hood*, one with A and one with N as base since the output is semantically and phonologically uniform. In his survey of suffixes, Plag (2004: 200) shows that many suffixes take more than one base category and that the different input categories are quantitatively not evenly distributed which leads to a distinction between majority and minority patterns. For example, the prefix *un-* in *unhappy*, *unbelief*, *unbind* and *uncork* is polysemous and derivations with this prefix cannot be explained on the basis of the category information of the input. Rather, “[…] the semantics of the output is generally a function of the meaning of the prefix in combination with the meaning of the base” (Plag 2004: 220), so the decisive factor is what is denoted by derivations, if they denote the state of animate or inanimate entities and the like. The diachronic data presented here shed light on the semantic connection between nouns denoting persons and adjectives denoting persons, and that the syntactic category does not play a role here. Plag (2004: 221) notes that

> A purely semantic approach can solve many, if not all, of these problems. It answers the question why different word-classes may serve as input, as long as the meaning of the pertinent bases in interaction with the meaning of the suffix satisfy the semantic restrictions on the output. It also answers the question why there are majority patterns and minority patterns attested.

As a result, a suffix is a bound lexical unit with meaning which behaves like a free lexical unit, so both types of elements have the same properties. This is in line with Baudouin de Courtenay who subsumes these elements under the term “morpheme”, more precisely he speaks of “the unification of the concepts of root, affix, prefix, ending, and the like under the common term, morpheme” (Stankiewicz 1972: 151; he actually invented the term “morpheme”). Coming back to the suffixes *-hood*, *-dom* and *-ship*, they can be defined as smallest meaningful units, as units of form and meaning (cf. de Saussure’s notion of the linguistic sign[1]). Now if we assume that these suffixes are morphemes what would we have to assume for their coming into existence, or more precisely for the formation of morphological complexes?

[1] Note that in his *Cours de linguistique* de Saussure himself never makes reference to the concept of the morpheme (see also Carstairs-McCarthy (2005)).

In the literature, two prominent approaches can be found: the approach and the approach. The first approach is clearly based on the notion of morpheme, as mentioned above Hockett (1958) called it the Item-and-Arrangement approach stating that concatenation of morphemes results in morphological complexes. Thus, morphology is seen as the concatenation of morphemes. Morphological rules are thought of as combining morphemes in much the same way as syntactic rules combine words. In a similar vein, Halle (1973) in his *Prolegomena to a Theory of Word Formation* claims that the basic units of the lexicon are morphemes which constitute the input of word-formation rules. Further, he states that word-formations rules are responsible for the sequential arrangement of morphemes. Opposed to this approach is the word-based or lexeme-based approach originally put forward by Aronoff (1976) which is based on the assumption that morphemes do not exist, only lexemes/words do and hence these are the only units that have entries in the lexicon. In this approach, morphology is conceptualised as phonological and semantic similarities between sets of morphologically related words. From a diachronic point of view, there clearly is evidence for morphemes as basic units. The development of the three suffixes shows that derivational morphology arises from syntactic constructions and from the concatenation of morphemes on the syntagmatic level. These processes are found cross-linguistically and speak in favour of a morpheme-based model. In the literature it has been stated that concatenative morphology can be explained with the diachrony (Anderson 1992: 348; Bybee & Newman 1995; Haspelmath 2002: 178; Booij 2005: 85).

Another approach that should be mentioned here is Beard's approach (1987, 1988, 1995, Beard & Volpe 2005)[2], which he calls lexeme-morpheme based morphology, since he draws a sharp distinction between lexemes and morphemes resulting in the fact that derivational suffixes like *-hood*, *-dom* and *-ship* simply cannot exist, at least not with the properties we have assumed so far (bound elements with a form-content relation). Beard and Beard & Volpe (2005) separate lexemes from (grammatical) morphemes and assume a lexeme/morpheme-based morphology. Only the lexeme is a sign, (grammatical) morphemes are devoid of sense and ordered by grammatical category in a paradigm. The differences between these two types of elements are given in Table 7.2:

Properties of lexemes and morphemes in Beard's approach	
Lexemes	Morphemes
open class	closed class
real world references	refer only to grammatical categories
must be phonemically expressed	may be phonemically expressed

Table 7.2: *Properties of lexemes and morphemes in Beard's approach (from Stekauer and Lieber 2005: 189)*

From the table we see that lexemes are attributed the following properties: they are open class items and have real world references. According to Beard and Beard & Volpe lexemes are nouns, adjectives and verbs, i.e., they are independent elements. Elements that are closed class, however, refer only to grammatical categories like tense or aspect and may have the shape of affixes, infixes etc., i.e., they may occur as bound elements. So derivational suffixes with meaning are neither part of the set of lexemes, nor part of the set of morphemes, so for Beard derivational suffixes with meaning do not exist. This becomes even more evident if his

[2] For similar approaches see Corbin (1987) and Szymanek (1988).

Separation Hypothesis is taken into account. Here, derivation is split into three processes: Lexical (L-) derivation, Inflectional (I-) derivation and Morphological spelling. I-derivation are operations on inflectional category functions like [+Plural, -Singular] etc., whereas Morphological spelling is the phonological realisation of the morphological categories of any base lexeme which has undergone such derivation (bound/free grammatical morphemes). This means that the addition of formal elements (markers) like suffixes is strictly separated from the addition of semantic or morpho-syntactic features.

With respect to the first type of derivation listed here, L-derivation, Beard further distinguishes four types, one of which is Transposition, and here we find what is traditionally called affixation. For Beard what happens is that a lexeme is transposed into a (different) class by adding lexical class features (N,V,A). Thus, a word like *happiness* is a syntactic L-derivation which changes the category but not the lexis of the underlying lexeme. Moreover, only grammatical features exist which make derivations like *newness*, *importance* and *length* identical because they all have the same features (the formal markers *-ness*, *-ance* and *-th* are added which all have the same grammatical features). The difference between them is the form, i.e., they may be realised by a variety of morphemes.

Just from this brief sketch of Beard's main assumptions we see that the diachronic findings presented here weaken Beard's approach. First, the strict separation of the semantics of word-formations from the form is not tenable because there is a one-to-one correspondence between form and meaning. Second, since in his approach a word/lexeme is defined as noun, verb and adjective, the OE equivalents of the ModE suffixes *-hood*, *-dom* and *-ship* would start out as words/lexemes. But how could the "transition" from free lexeme to bound lexeme be explained if the only bound category allowed is the morpheme only bearing grammatical features? Third, the fact that derivational suffixes bear meaning cannot be explained at all, such a category (real world references plus bound status) does not exist in Beard's approach. The process of Transposition is strictly based on changing the syntactic category information of the input. But as we have seen above, this type of information is not needed at all to adequately explain word-formation processes. Finally, the metonymisation processes that have been described for the suffixes *-hood*, *-dom* and *-ship* (which result in polysemy) are counter evidence for Beard because he claims that only lexemes (but not affixes) show polysemy.

Apart from these weaknesses which are related to the diachronic perspective, there are a number of further problematic points: first, it is striking that Beard only gives examples for word-formations with verbal bases, for example he always uses the *-er* suffix which he defines in syntactic terms only, with the properties Subjective (Agentive). Moreover, he claims that nominalisations with the suffixes *-er*, *-ee* and *-ent* all have the same function, namely agentive (Beard 1988, Beard & Volpe 2005). This is not borne out, and it is quite obvious if we just think of the words *employer* 'one who employs' and *employee* 'one who is employed' (see also Booij & Lieber 2004). On the other hand, a compound like *cookie-baker* (Beard and Volpe 2005: 193) is formed in a syntactic structure, hence the sentence "the one who bakes cookies" and the compound are both derived from the same underlying syntactic structure. But just like Lees (1960) decades ago, Beard & Volpe run into the same problem, because they have to assume massive deletion operations that are too powerful and stipulate too much (for further criticism see Plag 2003a: 234ff).

The theory of *Distributed Morphology* (henceforth DM, Halle & Marantz 1993) can also be called Separationism since a simple correspondence between form and meaning is denied. What is assumed is a clear separation between phonological pieces, called Vocabulary items,

and abstract morphemes which have nothing to do with the traditional notion of morpheme. Rather, they are abstract atoms of morpho-syntactic representation. During Lexical insertion (spell-out) the phonological pieces are associated with the morpho-syntactic representation. Morphemes are classified as l(exical)-morphemes also called Root, and f(unctional)-morphemes the former of which are subject to licensing conditions that are defined in terms of local relations to f-morphemes. More precisely, they are licensed by f-morphemes that have to be in a certain structural relation to a Root (so for example a 'noun' is licensed by a determiner in terms of nearest c-command). L-morphemes can further be classified as idioms since they are expressions not entirely predictable from its morpho-syntactic structural description which are part of the Encyclopedia. Although a component called Morphology exists which produces structure after Syntax, syntactic operations (including head-movement) construct morpho-syntactic structures, including 'word'-internal structure. This results from one of the core properties of DM which is *Syntactic Hierarchical Structure All the Way Down*: it entails that elements within both syntax and morphology enter into the same types of hierarchical constituent structures implying that operations within the Morphology component actually manipulate syntactic structural relations.

It is not clear what the status of the suffixes *-hood*, *-dom* and *-ship* are in this framework. Since they clearly cannot be F-morphemef-morphemes they would probably have to be classified as l-morphemes and have the status of idioms. Word-formation would be driven by syntactic principles and they would have to be licensed by f-morphemes of some type. Unfortunately, there is no literature on word-formation in the traditional sense, and I think not unsurprisingly because this framework could obviously not account for it for all the reasons discussed above for Beard's approach (and some more concerning the syntactic assumptions, see below).

What the brief look at Beard's approach and DM makes quite clear is that the denying of the one-to-one correspondence between form and meaning cannot explain word-formation processes. Moreover, a semantic-free approach cannot account for the phenomenon of word-formation at all, neither from the synchronic nor from the diachronic point of view. Rather, the findings presented here, and especially the fact that syntactic category[3] information in the input is not needed, lead to the insight that any adequate approach or model has to be based on a lexical-semantic analysis of morphological complexes which have properties different from units at higher levels of syntactic structure. This brings me to the next crucial aspect of word-formation relevant for morphological theory to which we will turn below.

7.1.2 The loss of syntactic properties, or morphological structures are not the same as syntactic structures

In the course of this study it was shown that the ModE suffixes *-hood*, *-dom* and *-ship* have syntactic sources since they historically started out as syntactic phrases being built in syntax. Further, it was shown that word-formations like compounds and derivations have properties different from syntactic units and are part of a morphological component in the grammar. Thus, the question arises of how syntactic phrases develop into words leading to the more

[3] It should be noted, however, that DM does not assume syntactic category in the traditional sense. Rather, a category like 'noun' is derived from a structural configuration (see the comment above on the relation between a Root and an f-morpheme).

fundamental, theoretical question of whether word-formation operations can be subsumed under syntax (e.g. Baker 1988, Lieber 1992) or have to be attributed to an independent module of word-formation subject to its own governing principles (e.g. Lapointe 1980, DiSciullo & Williams 1987).

At first sight, the 'sentential source' hypothesis of word-formation put forward by Lees (1960: 31) seems to be similar to what has been claimed in this study so far: morphological complexes are 'reduced' sentences in the form of nouns, adjectives and verbs and as such can be explained from full sentences. So, for example a compound like *washing-machine* can be explained from the sentences '(we) wash with the machine'. In a similar vein, word syntax approaches assume that words are built by the same principles that govern syntax. However, what is not explained are the crucial differences between syntactic and morphological complexes as concerns the semantic and the structural properties that cannot be denied. To answer the question of where word-formation has to be "located" we have to understand the differences between syntactic (phrasal) and morphological structures and therefore we will start with a comparison of the two types of structures:

(9) a. [XP a green house]
b. [X° a greenhouse]

(10) a. [XP seo arcebisceopes hād]
b. [X° seo arcebisceophād]

In (9) for ModE and (10) for OE we have a comparison between a syntactic phrase like *a green house* and *seo arcebisceopes had* and a morphological phrase like *a greenhouse* and *seo arcebisceophad*. A number of differences can be observed like e.g. phrasal stress versus non-phrasal stress or in the OE case presence versus absence of morphological case marking. Moreover, we find differences in meaning: *seo arcebisceopes had* has a referential interpretation whereas this is ruled out for the compound *arcebisceopeshad* (for a detailed discussion see chapter 4). The differences generally found in the literature (e.g. in Plag 2003b) are summarised in Table 7.3:

Properties of syntactic phrases vs. properties of compounds	
Syntactic phrases	Compounds
phrasal stress	non-phrasal stress
agreement	no agreement
can be modified	cannot be modified
nouns can be preceded by determiners	first noun cannot be preceded by determiners
no idiosyncrasies and no lexicalisation	idiosyncrasies and lexicalisation
not sensitive to internal structure of words	sensitive to internal structure of words
no productive/unproductive patterns of sentences	productive patterns

Table 7.3: *Properties of syntactic phrases vs. properties of compounds*

If we focus on the ordering of elements and headedness in syntactic and morphological complexes, illustrated with two OE examples

(11) þæt hē þǣr onfenge **ærcebiscopes hāde**.
that he there received archbishop's office

(Bede_3:21.248.11.2540)

(12) Þǣre tīde þǣr on Cent heold Honorius **[þone**$_{\textbf{Acc,Sg.}}$ **arcebysceophād**$_{\textbf{Acc,Sg.}}$**]**,
there time there on Kent held Honorius the archbishop office

(Bede_5:17.452.23.4545)

we see that the former type involves syntactic rules implying syntactic relations between categories whereas this is not borne out for the latter type. This has implicitly been stated by Williams (1981b: 248) in his famous Right-hand Head Rule:

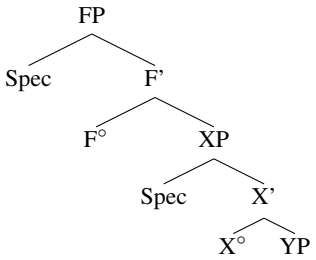
> In morphology we define the head of a morphologically complex word to be the righthand member of that word.

Another definition making this point clear is from Meyer (1993: 48):

> In morphology the concept "head" is defined with regard to position in complex words and not in terms of relations between categories. This is a crucial distinction between the use of the head-concept in syntax and morphology.

So in a syntactic structure the head is defined in terms of relations between categories where lexical as well as functional categories occur (i.e., their projections are included in syntactic phrases):

(13)



In a morphological structure, on the other hand, the head is defined in terms of linear position, i.e., the relation of precedence solely defines headedness. Moreover, neither XPs nor functional projections occur:

(14)

If we take a look again at OE examples where *hād*, *dōm* and *scipe* function as heads in compounds we see that the linear ordering of elements is the crucial property here:

(15) Þǣre tīde þǣr on Cent heold Honorius *þone arcebysceophād*,

(16) Hēr Eleutherius on Rōme onfeng *biscopdōm*.

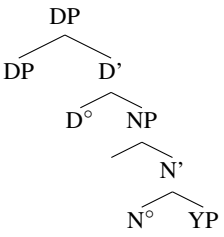
(17) & ðū gemengdest ðīnne *frēondscipe* wið ðone ðe hatode God,

These examples show that the headedness of compounds is strictly directional because they develop from noun phrases with prenominal modifiers where the head noun is the rightmost element. Since compounds develop from the linear ordering of modifiers and nominal heads, movement as a way of deriving this order is ruled out and this also applies to derivation (which strongly speaks against a syntactic approach, see also below). Thus, in processes of desyntactisation where a free morpheme functioning as a phrasal head develops into a compound head and finally into a suffix (bound morpheme) there is a transition from a syntactic structure to a morphological structure resulting in the loss of functional categories and maximal projections. Therefore, for the syntactic phrase

(18) $[_{DP}\ [_{DP}$ ærcebiscopes$]\ [_{NP}$ hade$]]$

I assume the following structure:

(19)



What happens on its way to becoming a morphological element is that the phrase is stripped of structure, i.e., functional structure. What remains is lexical structure on the word level implying that it lacks maximal projections:

(20) $[_{N^\circ}[_{N^\circ}$ arcebysceop$]\ [_{N^\circ}$ had$]]$

(21)

In syntax, this structure can be inserted under N, resulting in a phrasal syntactic structure NP.

I assume that the loss of agreement is evidence for this development. Moreover, if we were to analyse morphological complexes in syntactic terms, e.g. by means of head-to-head movement, we would have to explain why material that appears in syntactic structure does not appear in word structure (apart from the fact that we would have to assume massive deletion of structure as stated above). This has also been noted by Ackema & Neeleman (hence A & N, 2001, 2004) who claim that verbal idioms like the Dutch *heartenbreeker* 'heart breaker' cannot be explained by syntactic processes like incorporation:

(22) a. dat hij Marie's *hart* vaak heeft *gebroken*.
that he Mary's heart often has broken

(Ackema & Neeleman 2001: 45)

b. *hij is een [$_{NP}$ [$_{N}$ [$_{V}$ harten breek] er] [$_{VP}$ vaak t_{V} [$_{NP}$ Marie's en Sue's t_{N}]]]
he is a hart breaker often Mary's and Sue's

(Ackema & Neeleman 2001: 48)

In (22) a. the syntactic idiom *iemands hart breken* 'to break someone's heart' occurs, and in (22) b. the synthetic compound *harten breeker* occurs derived by incorporation from the syntactic idiom. The example is ungrammatical because it is not possible to strand material. Therefore, material that is obligatorily present in syntax must be omitted in word-formation, which is only possible if the element is realised in morphology.

The loss of referentiality in compounds that was described in chapter 4 follows from the assumptions made above. Williams (1989b: 286) claims that "[...] the notion of reference is tied to the syntactic notion of maximal projection, and hence should play no role in morphology." If we follow Williams (1989a) and Ackema (1999) and claim that the argument structure of nouns contain a R(eferential)-role that has to be discharged by D, then a definite determiner is needed to make a referential reading possible. But since the functional categories of syntactic structure are lost during the development described above, there is no way to discharge the R-role. These two assumptions explain why compounds like (20), and compounds in general, can only have a non-referential interpretation.

These differences speak against word syntax and also against approaches that locate morphological processes in the syntactic component. It was pointed out above that movement operations cannot be part of morphological processes, however they are standard operations in syntax. Since right-headedness follows from linear ordering in morphology any approach deriving morphological orders via movement is not tenable, for example any Kaynian-style approach (e.g. Kayne 1994, Drijkoningen 1999). As concerns assumptions subsumed under the minimalist programme (Chomsky 1995) it is not entirely clear where the place of morphology is. On the one hand it seems that word-formation processes are attributed to the lexicon. On the other hand, operations between spellout and PF are not part of syntax and therefore they may also be located here. What is clearly stated is that only syntax (from the lexicon to LF) is computational, but morphology is also computational leading to the conclusion that morphology must be part of syntax. If this is the case, then all findings presented above which speak against approaches including morphology into syntax hold here as well. This, of course, also applies to DM since the strong tenet *Syntactic Hierarchical Structure All the Way Down* determines that hierarchical constituent structure including functional projections (F-morphemes) exist in the Morphology component and that l-morphemes are always defined in terms of syntactic relations. But we have seen that desyntactisation implies that properties specific to syntax are lost and that the outcome of this process is non-syntactic. What follows is a framework that is based on the lexical-semantic representations of morphological simplexes and complexes (see chapter 6) and that acknowledges that morphological structure is different from syntactic structure (and underlies principles different

from syntax). Thus, we seem to be able to maintain the *Lexical Integrity Hypothesis*[4] defined here by Bresnan & Mchombo (1995: 181)[5]:

> A fundamental generalization that morphologists have traditionally maintained is the *lexical integrity principle*, which states that words are built out of different structural elements and by different principles of composition than syntactic phrases. Specifically, the morphological constituents of words have lexical and sublexical categories – bases and affixes – while the syntactic constituents of phrases have words as the minimal, unanalyzable units;

7.2 Conclusion

The development of the derivational suffixes *-hood*, *-dom* and *-ship* show the transition from syntactic structures to morphological structures and are hence an instance of desyntactisation. This implies that morphological structures are not the same as syntactic structures, theoretically we can assume that they lack functional projections and are not defined in terms of hierarchical structure. This results in the loss of referentiality on the level of semantics. Moreover, morphological units (be they simplex or complex) have semantic properties different from (morpho)syntactic properties, they bear lexical and not functional (or grammatical) meaning. In derivations the interplay between the meaning of the base and the suffix determines the meaning of the whole derivation. Since derivational morphology has morphological and lexical-semantic properties that are incompatible with the principles governing syntax it has to be attributed to an independent module of word-formation subject to its own governing principles.

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[4] For a number of reasons that were not explicitly shown here, a weak version of the Lexical Integrity Hypotheses has to be assumed to allow for interaction between syntax and morphology.

[5] See also e.g. Selkirk (1982), DiSciullo & Williams (1987), Anderson (1992).

8 Conclusion

This book has explored the development of the native suffixes *-hood*, *-dom* and *-ship* in the history of English. It has sought to fill an empirical gap, namely to provide a comprehensive and solid description of this process for all three suffixes by using the largest diachronic annotated corpora available at present. The corpus study presented in chapter 4, has gained the following results: 1. It was shown that suffixes develop from free morphemes, or put differently, that nouns functioning as heads of syntactic phrases develop into heads of derivatives via a process where they act as heads in compounds. This process is an instance of morphologisation whereby a syntactic structure develops into a morphological structure. This process is also an instance of desyntactisation because during this development properties specific to syntax are lost implying that the outcome of this development is non-syntactic. This finding was corroborated by further results showing that morphological structures have semantic properties different from syntactic structures. Hence, word-formation is not part of the syntactic module, it has to be attributed to a morphological module and analysed in morphological terms. Nevertheless, there is interaction between syntax and morphology, which becomes evident in the process of morphologisation; 2. The development of suffixes is triggered by semantic change which is correlated with the frequency of the elements in question. As long as the elements bear a number of salient meanings denoting persons they have the status of free elements and function as heads of phrases or compounds. As soon as their frequency rises due to their semantic usefulness they may be used with bases that do not denote persons only but also abstract entities. In this way, the semantics of these elements changes and they frequently occur with more abstract, underspecified meanings. Morphologically, the result is a bound form; 3. The development under investigation presents a transition from processes of compounding to processes of derivation and hence refers to the question of demarcating these two processes (or their outcome). The corpus study reveals that it is difficult to draw a line between the two processes and to find criteria that help to define the differences. I claimed that the difference between a compound and a derivation with the same second element is frequency and semantics. The criterion of productivity stated that at least two hapaxes with one morphological category shows that a productive series with that category exists if they show a change and exploitation of a rule, which is a criterion for suffixhood. Those formations adhering to this criterion also displayed the same, abstract, underspecified meaning. Thus, these two criteria make it possible to demarcate compounds from derivations with the same morphological category.

The results gained from the data have a bearing on the following aspects: 1. In the introduction the phenomena of grammaticalisation and lexicalisation were discussed and it was claimed that the investigation of the development of suffixes will shed light on this distinction made in the literature. Tracing this development showed that free elements used in syntactic phrases and compounds gradually developed into bound elements building abstract nouns. Two processes play a role here, compounding and derivation. Both are traditionally subsumed under processes of lexicalisation because they contribute new elements to the lexicon. As discussed above, the process of morphologisation can be found, a process also found in grammaticalisation. Further, the ModE data showed that many derivations with *-hood*, *-dom* and *-ship* have the status of simplexes because speakers modify them with prefixes and other

material. This finding could be analysed as an increase in autonomy of a lexical element and lead to the conclusion that the development is cyclic. With respect to the salient meanings these elements bear, metonymic shifts can be observed which are found in grammaticalisation and lexicalisation. The same applies to frequency and productivity. Since there are clearly parallels between grammaticalisation and lexicalisation and since a number of the micro-processes found within the processes of grammaticalisation and lexicalisation can also be observed for the development of suffixes, it could be attributed to either of these processes. Nevertheless, I think that there is good reason to make a decision in favour of lexicalisation: what happens in this development is that a new item arises serving word-formation only. Compared with elements arising through grammaticalisation processes like, e.g., clitics there are clear differences having to do with the function of the newly obtained elements: suffixes like *-hood*, *-dom* and *-ship* only contribute to word-formation, they do not have a grammatical function and this is the decisive property. More precisely, the semantics of suffixes contribute to the semantics of derivations, i.e., they have the same status as lexemes. For these reasons I claim that the development of suffixes is a process of lexicalisation, and not a process of grammaticalisation (see the definition from chapter 1). Thus, the assumption that the lexicon consists of members of two categories, lexical and grammatical, can be maintained, which does not necessarily mean, however, that they are discrete categories or discrete processes. Rather, in line with Lehmann (2004, 2002), I assume that since they correlate in a number of respects they should be seen as gradual processes on a scale and be presented in a unified model.

2. In this book, some statistical measures of frequency and productivity were applied to describe the development in an adequate way. Apart from lexical frequency, relative frequency was used to find out whether elements are lexicalised or not. However, it turned out that due to the diachronic character of this study this type of frequency cannot be applied to the data, or better, relative frequency does not vary through time and is thus not useful here. It would be interesting to see whether the family size of simplexes can contribute a solution to this problem. This result is in line with other results from diachronic studies on productivity that show that measures different from those designed for synchronic studies are needed for diachronic studies.

3. In line with the assumptions made above the development of the suffixes *-hood*, *-dom* and *-ship* is triggered by their semantics. The motivation for this development is the speaker's frequent use of words because they have a useful meaning, which leads to the process described in this book. Synchronically, word-formation has the same motivation: morphemes with meaning combine to form new, complex words with meaning. Hence, to understand word-formation and to come up with an explanatory theory of morphology we need to investigate the semantics of words. It was shown that Lieber (2004) presents a way to systematically analyse word-formation synchronically. My analysis, which is an extended version of Lieber, presents a way to systematically analyse word-formation from a diachronic perspective, which has hitherto been lacking. My analysis has gained new insights into the semantics of compounds, suffixes and into the process of suffixation. It was shown that the semantics of derivations can only be explained if we take into account the semantic history of elements like *-hood*, *-dom* and *-ship*. Under this aspect, my book has contributed to the understanding of word-formation and, in more general terms, to the architecture of morphological theory.

Bibliography

Ackema, Peter (1999): *Issues in Morphosyntax*. Amsterdam/Philadelphia: Benjamins (Linguistik Aktuell/Linguistics Today).

Ackema, Peter; Neeleman, Ad (2001): "Competition between Syntax and Morphology". In: Geraldine Legendre, Jane Grimshaw, & Sten Vikner, (ed.): *Optimality-Theoretic Syntax*. Oxford: Oxford University Press, 29–60.

Ackema, Peter; Neeleman, Ad (2004): *Beyond Morphology*. Oxford: Oxford University Press.

Anderson, Stephen R. (1992): *A-Morphous Morphology*. Cambridge: Cambridge University Press.

Anshen, Frank; Aronoff, Mark (1981): "Morphological productivity and phonological transparency". *The Canadian Journal of Linguistics*, (26), 63–77, 1.

Anshen, Frank; Aronoff, Mark (1988): "Producing morphologically complex words". *Linguistics*, (26), 641–655.

Anshen, Frank; Aronoff, Mark (1999): "Using dictionaries to study the mental lexicon". *Brain and Language*, (68), 16–26.

Aronoff, Mark (1976): *Word formation in generative grammar*. Cambridge, Mass.: MIT Press.

Aronoff, Mark (1980): "The relevance of productivity in a synchronic theory of word formation". In: Jacek Fisiak, (ed.): *Historical Morphology*. The Hague: Mouton, 71–83.

Aronoff, Mark (1983): "Potential words, actual words, productivity and frequency". In: Kazuko Inoue Shiro Hattori, (ed.): *Proceedings of the XIII International Congress of Linguists, August 29-September 4, 1982, Tokyo*, 163–171, Tokyo: Permanent International Committee on Linguistics.

Aronoff, Mark; Cho, S. (2001): "The semantics of -ship suffixation". *Linguistic Inquiry*, (32), 167–173.

Aronoff, Mark; Fudeman, Kirsten (2005): *What is Morphology?* Oxford: Blackwell.

Baayen, Harald (1992): "Quantitative aspects of morphological productivity". In: Geert E. Booji & Jaap Van Marle, (ed.): *Yearbook of Morphology 1991*. Dordrecht, London: Kluwer, 109–149.

Baayen, Harald (1993): "On frequency, transparency and productivity". In: Geert E. Booji & Jaap Van Marle, (ed.): *Yearbook of Morphology 1992*. Dordrecht, London: Kluwer, 181–208.

Baayen, Harald (1996): "The Effect of Lexical Specialization on the Growth Curve of the Vocabulary". *Computational Linguistics*, 22:4, 455–480.

Baayen, Harald (2008): "Corpus linguistics in morphology: morphological productivity". In: Anke Lüdeling, M. Kyto, & T. McEnery, (ed.): *Handbook of Corpus Linguistics*. Berlin: de Gruyter, 1–52.

Baayen, Harald; Renouf, Antoinette (1996): "Chronicling 'The Times': productive lexical innovations in an English newspaper". *Language*, 72, 69–96.

Baker, Mark (1988): *Incorporation: a theory of grammatical function changing*. Chicago: University of Chicago Press.

Bammesberger, Alfred (1984): *A sketch of diachronic English Morphology*, 7. Regensburg: Pustet (Eichstätter Materialien).

Bauer, Laurie (1988): *Introducing Linguistic Morphology*. Edinburgh: Edinburgh University Press.

Bauer, Laurie (2001): *Morphological Productivity*. Cambridge: Cambridge University Press.

Bauer, Laurie (^{9}2002): *English Word-Formation*. Cambridge: Cambridge University Press.

Beard, Robert (1987): "Lexeme order in a Lexeme/Morpheme-Based Morphology". *Lingua*, (72), 1–44.

Beard, Robert (1988): "On the Separation of Derivation from Morphology: Toward a Lexeme/Morpheme-Based Morphology". *Quaderni di semantica: rivista internazionale die semantica teorica e applicata*, 17(1), 3–59.

Beard, Robert (1995): *Lexeme Morpheme Base Morphology*. New York: SUNY Press.

Beard, Robert; Volpe, Mark (2005): "Lexeme-Morpheme Base Morphology". In: Paul Stekauer & Rochelle Lieber, (ed.): *Handbook of Word-Formation*. Dordrecht: Springer, 189–205.

Behaghel, Otto (1932): *Deutsche Syntax*, I Die Wortklassen und Wortformen. Heidelberg: Winter.

Berg, Thomas (2003): "Right-branching in English derivational morphology". *English Language and Linguistics*, (7), 279–307.

Bierwisch, Manfred (1989): "Event-Nominalizations. Proposals and Problems". In: Wolfgang Motsch, (ed.): *Wortstruktur und Satzstruktur*. Berlin: Akademie Verlag, 1–73.

Blank, Andreas (2001a): *Einführung in die lexikalische Semantik*. Tübingen: Niemeyer.

Blank, Andreas (2001b): "Pathways of lexicalization". In: Martin Haspelmath, (ed.): *Language Typology and Language Universals*, II. Berlin: de Gruyter, 1596–1608.

Bloomfield, Leonard (1935): *Language*. New York: Holt, Rinehart and Winston.

BNC (2001): *British National Corpus*. Oxford: Oxford University Press.

Booij, Geert (2005): *The Grammar of Words*. Oxford: Oxford University Press.

Booij, Gert; Lieber, Rochelle (2004): "On the paradigmatic nature of affixal semantics in English and Dutch". *Linguistics*, (42-2), 327–357.

Borer, Hagit (1988): "On the morphological parallelism between compounds and constructs". In: Gert Booij & Jaap van Marle, (ed.): *Yearbook of Morphology 1988*. Dordrecht: Kluwer, 45–65.

Borer, Hagit (1998): "Morphology and Syntax". In: Andrew Spencer & Arnold M. Zwicky, (ed.): *The Handbook of Morphology*. Oxford: Blackwell, 151–191.

Bosworth, Joseph; Toller, T. Northcote (1898): *An Anglo-Saxon Dictionary (and Supplements)*. Oxford: Clarendon Press.

Botha, Rudolf P. (1968): *The Function of the Lexicon in Transformational Generative Grammar*. The Hague and Paris: Mouton.

Bresnan, J.W.; Mchombo, S.A. (1995): "The Lexical Integrity Principle: Evidence from Bantu". *Natural Language and Linguistic Theory*, (13), 181–254.

Brinton, Laurel J.; Traugott, Elizabeth Closs (2005): *Lexicalization and Language Change*. Cambridge: Cambridge University Press.

Brugmann, Karl (1900): "Das Wesen der sogenannten Wortzusammensetzung". *Berichte der sächsischen Gesellschaft der Wissenschaften. Philologisch-Historische Klasse*, (52), 359ff.

Bybee, Joan; Newman, Jean (1995): "Are stem changes as natural as affixes?". *Linguistics*, (33), 633–645.

Campbell, Alistair (2003): *Old English Grammar*. Oxford: Clarendon Press [Reprint].

Carlson, Greg (1977):, *Reference to kinds in English*. Amherst, Ph.D. thesis, University of Massachussetts.

Carr, Charles T. (1939): *Nominal Compounds in Germanic*. London: Oxford University Press (St. Andrews University Publications).

Carstairs-McCarthy, Andrew (1992): *Current Morphology*. London: Routledge.

Carstairs-McCarthy, Andrew (2005): "Basic Terminology". In: Paul Stekauer & Rochelle Lieber, (ed.): *Handbook of Word-Formation*. Dordrecht: Springer, 189–205.

Chomsky, Noam (1957): *Syntactic Structures*. The Hague: Mouton.

Chomsky, Noam (1995): *The Minimalist Program*. Cambridge Mass.: MIT Press.

Chomsky, Noam; Halle, Morris (1968): *The Sound Pattern of English*. New York: Harper and Row.

Clark Hall, J. R. (^{9}1996): *A concise Anglo-Saxon dictionary*. Toronto: University of Toronto Press. Reprint.

Copestake, Ann; Briscoe, Ted (1995): "Semi-productive Polysemy and Sense Extension". *Journal of Semantics*, 12, 15–67.

Corbin, Danielle (1987): *Morphologie dérivationelle et structuration du lexique.* Tübingen: Max Niemeyer.

Cowie, Claire (1999):, *Diachronic word-formation: a corpus-based study of derived nominalizations in the history of English*. Cambridge, Ph.D. thesis, Cambridge University.

Cowie, Claire; Dalton-Puffer, Christiane (2002): "Diachronic word-formation and studying changes in productivity over time: Theoretical and methodological considerations". In: Vera Diaz & E. Javier, (ed.): *A Changing World of Words. Studies in English Historical Lexicography, Lexicology and Semantics*. Amsterdam: Ropodi, 410–437.

Cruse, D. Alan (2000): *Meaning in Language*. Oxford: Oxford University Press.

Cutler, Andrew (1981): "Degrees of transparency in word formation". *Canadian Journal of Linguistics*, (26), 73–77.

Dalton-Puffer, Christiane (1996): *The French Influence on Middle English Morphology: A Corpus-based Study of Derivation*. Berlin/New York: Mouton de Gruyter.

de Jong, N. H., Schreuder, R.; Baayen, R. H. (2000): "The morphological family size effect and morphology". *Language and cognitive processes*, (15), 329–65.

Demske, Ulrike (2001): *Merkmale und Relationen*. Berlin: Walter de Gruyter.

DiSciullo, Anna-Maria; Williams, Edwin (^{2}1987): *On the Definition of Word*. Cambridge, Mass.: The MIT Press.

Dobson, Eric J. (1968): *English pronunciation 1500-1700*. Oxford: Clarendon Press.

Dowty, David (1979): *Word Meaning and Montague Grammar*. Dordrecht: Reidel.

Drijkoningen, Frank (1999): "Antisymmetry And The Lefthand in Morphology". *Catalan Working Papers in Linguistics*, (7), 71–87.

Faiß, Klaus (1978): *Verdunkelte Compounds im Englischen*. Tübingen: Narr.

Faiß, Klaus (1989): *Englische Sprachgeschichte*. Tübingen: Francke.

Faiß, Klaus (1992): *English historical morphology and word-formation: loss versus enrichment*. Trier: Wissenschaftlicher Verlag Trier (Fokus 8).

Fanselow, Gisbert (1981): *Zur Syntax und Semantik der Nominalkomposition: ein Versuch praktischer Anwendung der Montague-Grammatik auf die Wortbildung im Deutschen*. Tübingen: Niemeyer (Linguistische Arbeiten 107).

Fleischer, Wolfgang; Barz, Irmhild (1995): *Wortbildung der deutschen Gegenwartssprache*. Tübingen: Niemeyer.

Frauenfelder, Uli; Schreuder, Robert (1992): "Constraining psycholinguistic models of morphological processing and representation: the role of productivity". In: Gert & Jaap van Marle Booij, (ed.): *Yearbook of Morphology 1991*. Dordrecht: Kluwer, 165–183.

Freeborn, Dennis (^{3}2006): *From Old English to Standard English. A Course Book in Language Variation across Time*. London: Palgrave Macmillan Press.

Geist, Ljudmila (2006): *Die Kopula und ihre Komplemente. Zur Kompositionalität in Kopulasätzen.* Tübingen: Niemeyer (Linguistische Arbeiten 502).

Givón, Talmy (1971): "Historical syntax and synchronic morphology: an archaeologist's field trip". *Chicago Linguistic Society*, (7), 394–415.

Gradon, Pamela, (ed.) (1979): *Dan Michel's Ayenbite of Inwyt*, II. Oxford: Oxford University Press (The Early English Text Society 23).

Grönbech, Wilhelm (1987a): *Kultur und Religion der Germanen*, I. Darmstadt: Wissenschaftliche Buchgesellschaft. [Reprint].

Grönbech, Wilhelm (1987b): *Kultur und Religion der Germanen*, II. Darmstadt: Wissenschaftliche Buchgesellschaft. [Reprint].

Halle, Morris (1973): "Prolegomena to a theory of word formation". *Linguistic Inquiry*, 4(1), 3–16.

Halle, Morris; Marantz, Alec (1993): "Distributed Morphology and the Pieces of Inflection". In: K. Hale & S. J. Keyser, (ed.): *The View from Building 20*. Cambridge, Mass.: MIT Press, 3–76.

Haspelmath, Martin (2002): *Understanding Morphology*. London: Arnold.

Hay, Jennifer (2001): "Lexical frequency in morphology: is everything relative?". *Linguistics*, (39-4), 1041–1070.

Hay, Jennifer (2003): *Causes and Consequences of Word Structure*. New York & London: Routledge.

Hay, Jennifer; Baayen, Harald (2002): "Parsing and Productivity". In: Gert Booij & Jaap van Marle, (ed.): *Yearbook of Morphology 2001*. Dordrecht: Kluwer, 203–235.

Heine, Bernd, Claudi, Ulrike; Hünnemeyer, Friederike (1991): *Grammaticalization. A conceptual framework*. Chicago: University of Chicago Press.

Heyvaert, Liesbet (2003): *A cognitive-functional approach to nominalization in English*. Berlin/New York: Mouton de Gruyter.

Higginbotham, James (1985): "On semantics". *Linguistic Inquiry*, (16), 547–594.

Hockett, Charles F. (1958): *A course in modern linguistics*. New York: Macmillan Press.

Hogg, Richard, (ed.) (1992): *The Cambridge History of the English Language*, I. Cambridge: Cambridge University Press.

Hopper, Paul (1991): "On some principles of grammaticalization". In: Elizabeth Closs Traugott & Bernd Heine, (ed.): *Approaches to grammaticalization*, I. Amsterdam: Benjamins, 17–35.

Hopper, Paul; Traugott, Elizabeth Closs (1993): *Grammaticalization*. Cambridge: Cambridge University Press.

Hopper, Paul; Traugott, Elizabeth Closs (^{2}2003): *Grammaticalization*. Cambridge: Cambridge University Press.

Hovav, Malka Rappaport; Levin, Beth (1992): "-ER nominals: implications for the theory of argument structure". In: Tim Stowell & E. Werhli, (ed.): *Syntax and Semantics*, XXVI: Syntax and the Lexicon. New York: Academic Press, 127–53.

Höhle, Tilman (1985): "On composition and derivation: the constituent structure of secondary words in German". In: Jindrich Toman, (ed.): *Studies in German grammar*. Dordrecht: Foris Publications, 319–376.

Jackendoff, Ray (1990): *Semantic Structures*. Cambrige Mass.: MIT Press.

Jackendoff, Ray (2002): *Foundations of Language: Brain, Meaning, Grammar, Evolution*. Oxford: Oxford University Press.

Jespersen, Otto (1942): *A Modern English Grammar on historical principles. Part VI. Morphology*. Copenhagen: Munksgaard.

Kastovsky, Dieter (1976): *Word-formation, or at the crossroads of morphology, syntax, semantics, and the lexicon*. Trier: LAUT.

Kastovsky, Dieter (1982): *Semantik und Wortbildung*. Düsseldorf: Schwann-Bagel.

Kastovsky, Dieter (1992): "Semantics and vocabulary". In: Richard Hogg, (ed.): *The Cambridge History of the English Language*, I. Cambridge: Cambridge University Press, 290–408.

Kayne, Richard (1994): *The Antisymmetry of Syntax*, 25. Cambridge, Mass.: MIT Press (Linguistic Inquiry Monograph).

Koziol, Herbert (^{2}1972): *Handbuch der englischen Wortbildungslehre*. Heidelberg: Carl Winter's Universitätsbuchhandlung.

Kratzer, Angelika (1995): "Stage-level and individual-level predicates". In: Gregory Carlson et al., (ed.): *The Generic Book*. Chicago: University of Chicago Press.

Kroch, Anthony (1989): "Reflexes of Grammar in Patterns of language change". *Language Variation and Change*, (1), 199–244.

Kroch, Anthony, Santorini, Beatrice; Delfs, Lauren, (ed.) (2004): *The Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME)*. Philadelphia: University of Pennsylvania.

Kroch, Anthony; Taylor, Ann, (ed.) (2000): *The Penn-Helsinki Parsed Corpus of Middle English, Second Edition (PPCME2)*. Philadelphia: University of Pennsylvania.

Lapointe, S. G. (1980):, *A theory of grammatical agreement*. Amherst, Ph.D. thesis, University of Massachusetts.

Lees, Robert B. (1960): *The Grammar of English nominalizations*. The Hague: Mouton.

Lehmann, Christian (1989): "Grammatikalisierung und Lexikalisierung". *Zeitschrift für Phonetik, Sprachwissenschaft und Kommunikationsforschung*, (42), 11–19.

Lehmann, Christian (1995): *Thoughts on grammaticalization*. München etc.: Lincom Europa (LINCOM studies in theoretical linguistics).

Lehmann, Christian (2002): "New reflections on grammaticalization and lexicalization". In: *New Reflections on Grammaticalization - Proceedings from the International Symposium on Grammaticalization, 17-19 June, 1999, Potsdam, Germany*. Amsterdam: Benjamins, 1–18.

Lehmann, Christian (2004): "Theory and method in grammaticalization". *Zeitschrift für germanistische Linguistik*, (32/2), 152–187.

Levin, Beth; Pinker, Steven, (ed.) (1992): *Lexical & conceptual semantics*. Cambrige Mass. etc.: Blackwell.

Levin, Beth; Rappaport, Malka (1988): "Non-event -er nominals: a probe into argument structure". *Linguistics*, (17), 1067–83.

Lieber, Rochelle (1981): *On the organization of the lexicon.* Bloomington, Ind.: Indiana Univ. Linguistics Club.

Lieber, Rochelle (1992): *Deconstructing Morphology*. Chicago: The University of Chicago Press.

Lieber, Rochelle (2004): *Morphology and lexical semantics*. Cambridge: Cambridge University Press.

Lipka, Leonhard (1983): "A Multi-Level Approach to Word-Formation: Complex Lexemes and Word-Semantics". In: S. Hattori, (ed.): *Proceedings of the XIIIth International Congress of Linguists*, 926–28, Tokyo.

Lutstorf, Heinz Theo (1960): *The stressing of compound in Modern English: a study in experimental phonetics*. Bern: Buchdruckerei Walter Fischer.

Löbner, Sebastian (1985): "Definites". *Journal of Semantics*, (4), 279–326.

Maienborn, Claudia (2003): *Die logische Form von Kopula-Sätzen*. Berlin: Akademie Verlag.

Marchand, Hans (^{2}1969): *The Categories and Types of Present-Day English Word-Formation*. München: C. H. Beck.

Markus, Manfred (1990): *Mittelenglisches Studienbuch*. Tübingen: Francke.

Martin, Friedrich (1906):, *Die produktiven Abstraktsuffixe des Mittelenglischen*. Ph.D. thesis, Straßburg.

Martin, Robert (1972): "Esquisse d'une analyse formelle de la polysémie". *Travaux de Linguistique et de Littérature*, 10, 125–136.

Matthews, Paul (1972): *Inflectional Morphology*. Cambridge: Cambridge University Press.

Mayerthaler, Willi (1981): *Morphologische Natürlichkeit*. Wiesbaden: Athenaion.

McEnery, Tony; Wilson, Andrew (1996): *Corpus Linguistics*. Edinburgh: Edinburgh University Press.

McQueen, J. M.; Cutler, A. (1998): "Morphology in word recognition". In: Andrew Spencer & Arnold Zwicky, (ed.): *The Handbook of Morphology*. Oxford: Blackwell, 406–427.

Meibauer, Jörg, Guttropf, Anja; Scherer, Carmen (2004): "Dynamic aspects of German -er-nominals: a probe into the interaction of language change and language acquisition". *Linguistics*, (42-1), 155–193.

Meillet, Antoine (1912): "L'évolution des formes grammaticales". *Scientia (Rivista die Scienza*, 12(26.6), 130–148.

Meillet, Antoine (1921): *Linguistique historique et linguistique générale*.

Messing, E. E. J. (1917a): "Das Suffix -schaft". *Neophilologus*, (2), 185–190.

Messing, E. E. J. (1917b): "Das Suffix -schaft". *Neophilologus*, (2), 272–283.

Meyer, Ralf (1993): *Compound Comprehension in isolation and context*. Tübingen: Max Niemeyer Verlag (Linguistische Arbeiten 299).

Minkova, Donka (1996): "Nonprimary Stress in Early Middle English Accentual-Syllabic Verse". In: C. B. McCully & J. J. Anderson, (ed.): *English Historical Metrics*. Cambridge: Cambridge University Press, 95–119.

Mitchell, Bruce; Robinson, Fred C. (^{6}2003): *A guide to Old English*. Oxford: Blackwell.

Mohanan, Tara; Mohanan, K. P. (1999): "On representations in grammatical semantics". In: Tara Mohanann & Lionel Wee, (ed.): *Grammatical semantics: Evidence for Structure in Meaning*. Stanford, CA: CSLI publications, 23–76.

Mossé, Fernand (1969): *Handbuch des Mittelenglischen*. München: Max Hueber Verlag.

OED online (^{2}2008): *Oxford English Dictionary online*. Oxford: Oxford University Press.

Olsen, Susan (1986): "'Argument linking' und produktive Reihen bei deutschen Adjektivkomposita". *Zeitschrift für deutsche Sprachwissenschaft*, (5), 5–24.

Onions, C. T., (ed.) (1974): *The Oxford Dictionary of English Etymology*. Oxford University Press [Reprint].

Pagliuca, William, (ed.) (1994): *Perspectives on grammaticalization*. Amsterdam/Philadelphia: Benjamins.

Paul, Hermann (1995): *Prinzipien der Sprachgeschichte*. Halle: Niemeyer [Reprint].

Pelletier, Francis Jeffry (2001): "Did Frege believe Frege's Principle?". *Journal of Logic, Language and Information*, (10), 87–114.

Pelletier, Francis Jeffry (2004): "The Principle of Semantic Compositionality". In: Steven Davis & Brendan S. Gillon, (ed.): *Semantics*. Oxford: Oxford University Press, 133–157.

Pintzuk, Susan, Taylor, Ann, Warner, Anthony, Plug, Leendert; Beths, Frank, (ed.) (2001): *The York-Helsinki Parsed Corpus of Old English Poetry*. University of York.

Plag, Ingo (1999): *Morphological Productivity: Structural Constraints in English Derivation.* Berlin: Mouton de Gruyter.

Plag, Ingo (2003a): "Productivity". In: B. Aarts & A. McMahon, (ed.): *Handbook of English Linguistics*. Oxford: Blackwell.

Plag, Ingo (2003b): *Word-Formation in English*. Cambridge: Cambridge University Press.

Plag, Ingo (2004): "Syntactic category information and the semantics of derivational morphological rules". *Folia Linguistica*, 38:3-4, 193–225.

Plag, Ingo, Dalton-Puffer, Christiane; Baayen, Harald (1999): "Morphological productivity across speech and writing". *English language and linguistics*, (3), 209–228.

Pustejovsky, James (1995): *The Generative Lexicon. A Theory of Computational Lexical Semantics*. Cambrige Mass.: MIT Press.

Pustejovsky, James (2002): "Polysemy and Underspecification". In: Leila Behrens & Dietmar Zaefferer, (ed.): *The Lexicon in Focus. Competition and Convergence in Current Lexicology*. Frankfurt a.M.: Peter Lang, 187–208.

Ramat, Paolo (1992): "Thoughts on degrammaticalization". *Linguistics*, (30), 549–560.

Ramat, Paolo (2001): "Degrammaticalization or transcategorization?". In: Chris Schaner-Wolles, John Rennison, & Friedrich Neubarth, (ed.): *Naturally! Linguistic Studies in Honour of Wolfgang Ulrich Dressler Presented on the Occasion of his 60th Birthday*. Torrino: Rosenbach and Sellier, 393–401.

Roeper, Tom (1988): "Compound syntax and head movement". In: Gert Booij & Jaap van Marle, (ed.): *Yearbook of Morphology 1988*. Dordrecht: Kluwer, 187–228.

Roeper, Tom; Siegel, M.E.A. (1978): "A Lexical Transformation for Verbal Compounds". *Linguistic Inquiry*, 9, 199–260.

Sauer, Hans (1992): *Nominalkomposita im Frühmittelenglischen. Mit Ausblicken auf die Geschichte der englischen Nominalkomposition*. Tübingen: Max Niemeyer Verlag (BAnglia 30).

Scalise, Sergio (1984): *Generative Morphology*. Dordrecht: Foris.

Scherer, Carmen (2003): *Wortbildungswandel und Produktivität. Eine empirische Studie zur nominalen -er-Derivation im Deutschen*. Doctoral Dissertation: University of Mainz.

Schippan, Thea (2002): *Lexikologie der deutschen Gegenwartssprache*. Tübingen: Niemeyer.

Schmidt, G. D. (1987): "Das Affixoid. Zur Notwendigkeit und Brauchbarkeit eines beliebten Zwischenbegriffs in der Wortbildung". In: Gabriele Hoppe, (ed.): *Deutsche Lehnwortbildung*. Tübingen: Narr.

Schreuder, Robert; Baayen, Harald (1997): "How Complex Simplex Words Can Be". *Journal of Memory and Language*, (37), 118–139.

Schultink, Hans (1961): "Produktiviteit als morfologisch fenomeen". *Forum der Letteren*, (2), 110–125.

Selkirk, Elisabeth (1982): *The Syntax of Words*. Cambrige Mass.: MIT (Linguistic Inquiry Monographs 7).

Sievers, Eduard (1968): *An Old English Grammar*. New York: Greenwood [Reprint].

Skeat, Walter (1892): *A concise etymological dictionary of the English language*. Oxford: Clarendon Press.

Spencer, Andrew (1991): *Morphological Theory*. Oxford: Blackwell.

Stankiewicz, Edward, (ed.) (1972): *A Baudouin de Courtenay Anthology*. Bloomington: Indiana University Press.

Stein, Gabriele (1981): "Zur Typologie der Suffixentstehung". In: Leonhard Lipka & Hartmut Günther, (ed.): *Wortbildung*, 564. Darmstadt: Wissenschaftliche Buchgesellschaft, 324–356.

Stekauer, Pavol; Lieber, Rochelle, (ed.) (2005): *Handbook of Word-Formation*. Dordrecht: Springer (Studies in Natural Language and Linguistic Theory 64).

Stiebels, Barbara (1998): "Complex Denominal Verbs in German and the Morphology-Semantics Interface". In: Geert Booij & Jap van Marle, (ed.): *Yearbook of Morphology 1997*. Heidelberg: Springer, 265–302.

Stiebels, Barbara; Wunderlich, Dieter (1995): "Morphology Feeds Syntax. The case of Particle Verbs". *Linguistics*, (32), 913–969.

Szymanek, Bogdan (1988): *Categories and Categorization in Morphology.* Lublin: Catholic University Press.

Talmy, Leonard (2000): *Toward a Cognitive Semantics*. Cambridge: MIT Press.

Tamson, George (1898): *Word stress in English: A Short Treatise on the Accentuation of Words in Middle English*. Halle.

Taylor, Ann, Warner, Anthony, Pintzuk, Susan; Beths, Frank, (ed.) (2003): *The York-Toronto-Helsinki Parsed Corpus of Old English Prose*. University of York.

The Dictionary of Old English Project, (ed.) (2003): *Dictionary of Old English A-F*. University of Toronto: Center for Medieval Studies, University of Toronto.

Toman, Jindrich (1988): "Issues in the Theory of Inheritance". *Linguistische Studien des ZISW*, Nr. 179, 89–113.

Traugott, Elizabeth Closs; Dasher, Richard (2005): *Regularity in semantic change*. Cambridge: Cambridge University Press.

Traugott, Elizabeth Closs; Heine, Bernd, (ed.) (1991): *Approaches to grammaticalization*. Amsterdam/Philadelphia: Benjamins.

Trips, Carola (2006): "Syntactic sources of word-formation processes: Evidence from Old English and Old High German". In: Jutta M. Hartmann & Laszlo Molnarfi, (ed.): *Comparative Studies in Germanic Syntax*, Linguistik Aktuell/Linguistics Today 97, 299–329, Amsterdam/Philadelphia: Benjamins.

Tschentscher, Christhild (1958):, *Geschichte der germanischen Bildungssilbe TUM*. Stuttgart, Ph.D. thesis, Universität Stuttgart.

Voyles, Joseph B. (1992): *Early Germanic Grammar*. San Diego: Academic Press.

Weinreich, Uriel (1964): "Webster's third: a critique of its semantics". *International Journal of American Linguistics*, (30), 405–409.

Wentworth, Harold (1941): "The Allegedly Dead Suffix -dom in Modern English". *Publications of the Modern Language Assocication of America*, (56), 280–306.

Wierzbicka, Anna (1996): *Semantics: Primes and Universals.* Oxford: Oxford University Press.

Wiesner, Joachim (1968): “Das Wort heit im Umkreis althochdeutscher persona-Übersetzungen. Ein Beitrag zur Lehngut-Theorie”. *Beiträge zur Geschichte der deutschen Sprache und Literatur*, (90), 3–67.

Williams, Edwin (1981a): “Argument Structure and Morphology”. *The Linguistic Review*, 1, 81–114.

Williams, Edwin (1981b): “On the Notions ‘Lexically Related’ and ‘Head of a Word”’. *Linguistic Inquiry*, 12, 245–274.

Williams, Edwin (1989a): “The anaphoric nature of 0-roles”. *Linguistic Inquiry*, 20(3), 425–456.

Williams, Edwin (1989b): “Maximal projections in words and phrases”. In: Mark R. Baltin & Anthony S. Kroch, (ed.): *Alternative conceptions of phrase structure*. Chicago: The University of Chicago Press, 280–293.

Wunderlich, Dieter (1986): “Probleme der Wortstruktur”. *Zeitschrift für Sprachwissenschaft*, 5, 209–252.

Wunderlich, Dieter (1997): “CAUSE and the Structure of Verbs”. *Linguistic Inquiry*, (28), 27–68.

Appendix

Text names of Middle English texts where -hēde occurs

peterb	The Peterborough Chronicle
ayenb	Ayenbite of Inwyt
earlps	The Earliest Complete English Prose Psalter
kentse	Kentish Sermons
benrul	The Northern Prose Rule of St. Benet
ctmeli	The Tale of Melibee
ctpars	The Parson's Tale
edmund	The Life of St. Edmund
horses	A Late Middle English Treatise on Horses
mandev	Mandeville's Travels
polych	John of Trevisa's Polychronicon
purvey	Purvey's General Prologue to the Bible
wycser	English Wycliffite Sermons
capchr	Capgrave's Chronicle
capser	Capgrave's Sermon
edthor	The Mirror of St. Edmund
gaytry	Dan Jon Gaytryge's Sermon
innoce	In Die Innocencium
julnor	Julian of Norwich's Revelations of Divine Love
kempe	The Book of Margery Kempe
malory	Malory's Morte Darthur
mirk	Mirk's Festial
reynar	Caxton's History of Reynard the Fox
reynes	The Commonplace Book of Robert Reynes
rollep	Richard Rolle's Epistles
rolletr	Richard Rolle's Prose Treatises
siege	The Siege of Jerusalem
vices	Vices and Virtues

Index of Word-Formations with *-hood, -dom, -ship* and *-red(en)*

General Index