

# New insights into the rivalry of suffixes

Carola Trips  
Universität Stuttgart  
carola.trips@ling.uni-stuttgart.de

## Abstract

This paper deals with the claim that parallel derivations act as rivals and compete with each other. This claim is based on the assumption that word-formations with the same base and different suffixes are synonymous. I will show with a study on the development of the Modern English suffixes *-hood*, *-dom* and *-ship* that this is not the case. In fact, these elements which used to be nouns and developed into suffixes via a stage in which they act as morphological heads of compounds bear salient meanings they had when they had the status of free morphemes as well as meanings that developed from metonymic shifts. These meanings differ and therefore the suffixes are not synonymous and do not compete with each other. I will propose a lexical-semantic analysis of my findings based on Lieber (2004) that takes into account the diachrony of these elements.

## 1 Introduction

In Modern English (ModE) so-called parallel derivations like *kinghood*, *kingdom* and *kingship* occur examples of which are given in (1) to (3). Here we find the same base and different suffixes with the same function of building abstract nouns.

(1) 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>, 25/4/07)

(2) Introduction to the Plant **Kingdom**, their morphology & life cycles.

([scitec.uwichill.edu.bb/bcs/bl14apl/bl14apl.htm](http://scitec.uwichill.edu.bb/bcs/bl14apl/bl14apl.htm), 25/4/07)

(3) 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](http://blog.peakdems.org/2005_12_25_peakdems_archive.html), 25/4/07)

The elements in bold – *kinghood*, *kingdom*, *kingship* – can syntactically be identified as elements of the type noun and morphologically as free morphemes. Moreover, as mentioned above, we can clearly identify the base king and the bound derivational suffixes *-hood*, *-dom* and *-ship*. With respect to the semantics of the word-formations found in these contexts, *kinghood* denotes the state of being a king, *kingdom* the realm of plants and *kingship* the form of address of a king. We will see below that the meaning of these formations is composed of the meaning of the base and the suffix, i. e., it will be claimed that suffixes contribute to the meaning of formations.

In the literature (see Aronoff 1976, Plag 2003) it has been observed that word-formations with the same base and different suffixes occur and seem to denote the same type category, e.g., abstract nouns. Therefore, it has been claimed that they act as rivals and compete with each other (e.g. Tschentscher 1958, Dalton-Puffer 1996, Plag 2003). This similarity, or better the semantic relatedness between formations with *-hood*, *-dom* and *-ship* is often stated the following:

*The native suffix -dom is semantically closely related to -hood and -ship, which express similar concepts.* (Plag 2003, 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? According to Martin (1906, 71) the latter applies to parallel derivations: "... in der grossen Mehrzahl der Fälle keine Verschiedenheit der Bedeutung". In line with Martin,

Dalton-Puffer (1996, 128) comes to the conclusion that "... in the absence of any positive evidence pointing towards systematic meaning differences between parallel formations in Middle English, I assume the suffixes involved to be synonymous". Tschentscher (1958, 180) also assumes competition ("TUM und seine Konkurrenten") which is based on shared meanings between the three German suffixes *-tum*, *-heit* and *-schaft* but also on differences. The fact that e.g. *-tum* and *-heit* compete is based on the meaning "Würde, Rang" ('dignity, rank'). The semantic relatedness between formations with *-schaft* and *-heit* is due to their active reading.

On the other hand, there are semantic differences, e.g., the difference between *-heit* and *-tum* which is based on the static character of the latter element. The difference between *-schaft* and *-heit* is that the former 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. What all three elements have in common is, according to Tschentscher, the meaning 'power', and that is also why they act as rivals (she illustrates this point with the formations *Aposteltum*, *Apostelheit* and *Apostelship*). In the following, I will show with diachronic data that suffixes do not act as rivals in parallel derivations. My claim is that suffixes are semantically different enough to coexist because they bear salient meanings they acquired in the course of time as well as metonymies resulting from these salient meanings. This leads to the assumption that suffixes have meaning that contributes to the meaning of word-formations with these suffixes, implying that there is an interplay between meaning of base and suffix.

The starting point of my diachronic study is Old English (OE) where the three elements under investigation had the status of abstract nouns with a number of salient meanings:

- (4) a. *hād*: 'status, office, rank'
- b. *dōm*: 'authority, judgement'
- c. *scipe*: '(resultant) state, condition'

On their way to becoming suffixes, further meanings arose from metonymic shifts. Hence, the salient meanings given in (4) as well as meanings that arose from metonymic shifts are part of the meaning of the ModE suffixes:

- (5) a. *-hood*: 'a distinguishing feature of one's personal nature' (salient meanings 'status, office, rank', metonymies 'state, place, time')
- b. *-dom*: 'possession of the qualities required to do something or get something done' (salient meanings 'authority, judgement', metonymies 'territory, realm')
- c. *-ship*: 'result of a process of creating' (salient meanings 'created thing, '(resultant) state', metonymies 'function, forms of address, skill/art')

The examples in (6) to (8) from Early Modern English (EME) illustrate that the three suffixes also bear these metonymic meanings:

- (6) *A ploughman of your **neighbourhood** that has never been out of his parish.* (LOCKE, 75.150)

The formation *neighbourhood* clearly has a local reading. The example shows that the meaning 'surrounding area or district' a metonymy. This also applies to the formation *kingdom* in the following example:

- (7) *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)

In Old English (OE) and Middle English (ME), the salient meaning of *kingdom* was 'dominion, authority of a king', in this example it denotes 'the territory over which a king's power extends, realm, country' (see the Middle English Dictionary (MED)). Thus, this meaning arose due to a metonymic shift from the authority of a king to the territory over which a king has the authority. Example (8) with the formation *horsmanship* also shows a metonymic meaning:

- (8) *The end of **Hors-manshippe**.* (MARKHAM, 1, 86.112)

The formation used to denote "chivalrie ... also a tenure by Knights service" (Lexicons

of Early Modern English (LEME)) and developed into 'the skill involved in riding horses' (Dictionary of Contemporary English (DCE)). Thus, what these examples show is that the ModE suffixes include salient meanings (see (4)) as well as a number of metonymies. When we compare the three suffixes, we find similar meanings like 'rank', 'office' and 'authority', but there are also a number of meanings that only occur with one of the suffixes like 'skill/art'. As claimed above, these clear differences in meaning result from different salient meanings and metonymic shifts of these meanings. The semantic similarity that has been observed in the literature is that diachronically the three nouns *hād*, *dōm* and *scipe* denote abstract states and refer to persons:

- (9) *þæt he þær onfenge ærcebisceopes hāde.*  
that he there received archbishop's office  
(Bede\_3:21.248.11.2540)
- (10) *Ʒ þis folc ne oncneow Godes dōm.*  
and this people not knew God's judgement  
(ÆCHom\_I,\_28:412.64.5503)
- (11) *Hæbbe ic mīnes cynescipes gerihta swa mīn fæder hæfde, and*  
have I my kingly position's rights as my father had and  
*mīne þegnas hæbben heora scipe.*  
my servants have their position  
(BT, L.Edg. ii. 3; Th. i. 266, 15-18)

In (9) *hād* denotes the office of an archbishop (both with a referential and non-referential reading), in (10) *dōm* denotes the judgement of God, and in (11) *scipe* denotes the position of servants.

For ModE, we can assume that the three suffixes building abstract nouns form a paradigm with a general feature 'state of N' (that is where they overlap, compare the meanings given in (5) again), but each of them also shows meanings different from the meanings of the other suffixes in the paradigm. In the following, I will show that these semantic differences play a crucial role in the distribution of derivations with the three suffixes today and actually can explain a) why sometimes a derivation is only possible with one of the suffixes b) why parallel derivations with different suffixes never denote the same meaning.

In the following section, I will discuss Aronoff & Cho's (2001) analysis of ModE *-ship* suffixation because some of my theoretical assumptions (sections 4 and 5) will be based on their analysis.

## 2. *-ship*-suffixation in ModE: Aronoff & Cho's (2001) analysis

Aronoff & Cho (2001, hence A & C) present an account for part of the observations made above by exploring the semantic conditions of *-ship*-suffixation in ModE. They propose that the type of predicate a base belongs to explains the occurrence or nonoccurrence of such a derivation, drawing on the distinction between stage-level and individual-level predicates (Carlson 1977). A stage-level predicate applies to temporary states and denotes properties of states. The noun friend is one example. The temporary nature of these predicates allows them to occur with an adjective like longtime as in John's longtime friend. An individual-level predicate, on the other hand, applies to an individual without taking into consideration time, it denotes stable properties of individuals. That is why it cannot be modified by longtime: \*John's longtime parents. A & C claim that this distinction plays a crucial role in ModE *-ship*-suffixation and illustrate this with the following examples (2001, 168):

- (12) a. airmanship, friendship, kingship, penmanship, priesthood, sponsorship  
b. ??parentship, ??wifeship, ??nieceship, ??womanship

They note that the base nouns *airman*, *friend*, *king*, *penman*, *priest* and *sponsor* are all stage-level predicate since they denote instable, transient stages. In contrast, the base nouns *parent*, *wife*, *niece* and *woman* are all individual-stage level predicates since they denote stable

properties of individuals<sup>1</sup>. Strikingly, it seems to be the case that –ship can only occur with stage-level predicates, and that is why a formation like *childship* does not exist whereas *childhood* does. Therefore, A & N propose the following semantic condition:

- (13)  $X_{[N -ship]_N}$   
Condition: X is a stage-level predicate.

They further claim that "the semantics of the base selects the specific meaning of –ship" (2001, 169). For example, if a base like *friend* is a relational noun (it denotes a relation between friends) the formation with –ship denotes that relation. If, on the other hand, the noun is not relational like e.g. *penman* suffixation with –ship is still possible although it has a meaning different from friendship; the formation *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 selected.

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 A & C, 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<sup>2</sup>. 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)

Coming back to the observation that ModE formations with –hood, –dom and –ship are semantically related, implying similarities and differences, A & N's assumptions can explain the different behaviour of ModE suffixation with –ship and –hood. They give the following word-formations based on Webster's Third New International Dictionary comparing derivatives with the suffixes –hood and –ship (see Aronoff & Cho 2001, 172):

<b>Comparison of formations with –hood and –ship</b>	
<i>–ship</i>	<i>–hood</i>
apprenticeship	apprenticehood
bachelorship	bachelorhood
_____	<b>childhood</b>
doctorship	doctorhood
fathership	fatherhood
_____	<b>girlhood</b>
kingship	kinghood
ladyship	ladyhood
_____	<b>manhood</b>
_____	<b>motherhood</b>
neighborship	neighborhood
_____	<b>parenthood</b>
priestship	priesthood
queenship	queenhood
_____	<b>sisterhood</b>
_____	<b>wifehood</b>

<sup>1</sup> A & C introduce a subclassification of these predicates into left-side individual predicates and right-side individual predicates. The former type denotes properties that individuals have at birth until a certain point in time (e.g. *child*), whereas the latter type denotes properties that individuals have from a certain point in time up to death (e.g. *mother*).

<sup>2</sup> A & C 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.

Table 1: Comparison of formations with -hood and -ship

The comparison shows that whenever a base denoting an individual-level predicate occurs there is no formation with *-ship*. Thus, this finding corroborates A & C'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. What A & N have not included in their list are *-ship*-formations with bases denoting individual-level predicates, although parallel derivations like *fathership* and *fatherhood* do exist. How can they be explained? A & C assume that a formation like *fathership* can occur, although *father* is an individual-level predicate because the formation does not denote stable properties of individuals: *fathership* denotes 'the condition or state of being the oldest member of a community' and thus has stage-level properties, whereas *fatherhood* denotes 'the state or condition of being a father' denoting stable, enduring properties of individuals<sup>3</sup>. What is crucial for their analysis is that *-ship*-formations are determined by the semantics of the base. I claim that the synchronic facts (parallel derivations) can only be explained if we take into account that suffixes bear meaning and that this meaning results from their history. This will become evident in the following section, which surveys the lexical-semantic history of *-hood*, *-dom* and *-ship*.

### 3. Data: the diachrony of -hood, -dom and -ship

As noted in the introduction, *hād*, *dōm* and *scipe* are free nouns in OE with the following

salient meanings ((4) is repeated here as (14)):

- (14) a. *hād*: 'status, office, rank'
- b. *dōm*: 'authority, judgement'
- c. *scipe*: '(resultant) state, condition'

In my study, the semantic status of the bases was defined according to the data and categorised as being either of the stage-level or of the individual-level predicate type, in line with A & C (since a clear-cut classification of nouns in this respect does not exist, see Kratzer 1995, Maienborn 2001, Geist 2006). The result of my survey on the lexical-semantics of the nouns found as bases in OE is the following definition for the two types of predicates<sup>4</sup>:

*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).*

(Trips 2007, 260)

This difference can be nicely illustrated with the nouns *priest* and *child*: a *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.

The three elements *hād*, *dōm* and *scipe*, functioning as heads of compounds, predominantly occur with nominal bases that are of the stage-level predicate type. Further, they predominantly bear salient meanings and match the meanings of the bases. This implies that both the base and the suffix bear meaning, and the combination of these meanings results in the meaning of a

<sup>3</sup> Note that A & C do not assume (as Lieber 2004, 160 claims) that according to their theory these formation are not possible, they only claim that when they occur they can never denote enduring properties.

<sup>4</sup> The adjectival bases were classified accordingly. For a full account see Trips 2007.

formation. Since *had*, *dom* and *scipe* bear different salient meanings, parallel derivations also bear different meanings:

- (15) *Ic ÆLFRED geofendum Criste mid cynehādes mǣrnysse geweorðod,*  
 I A. giving Christ with king-dignity's honour honoured  
*habbe gearolice ongyten & þurh hāligra bōca gesægene oft*  
 have readily learned and through holy books prophecy often  
*gehýred, ...*  
 heard  
 (GDPref\_1\_[C]:1.1.2)

In the context of (15), the formation *cynehād* denotes 'kingly state or dignity', and this state is granted by God according to the context. Thus, *cyne* denotes a stage-level predicate.

- (16) *Ge habbað nū gehýrod hū ða hālgan cyningas heora cynedōm*  
 you have now heard how the holy kings their king-rule  
*forsawon for Cristes gelēafan and heora āgen līf forlēton for*  
 rejected for Christ's belief and their own life abandoned for  
*hine.*  
 him  
 (ÆLS\_[Abdon\_and\_Sennes]:76.4771)

In (16), the formation *cynedōm* denotes the authority or rule of a king. The difference between *cyneh ad* and *cynedōm* can only be explained by the fact that *dōm* has a salient meaning different from *hād*, namely 'rule, authority', that is also part of the formation.

The same applies to formations with *scipe*:

- (17) *Ne mæg nān eorðlic cyning cynelic lybban. būton he hæbbe*  
 NEG may no earthly king kingly live but he have  
*ðegenas. & swā gelōgodne hired swā his cynescipe gerīsan*  
 servants and so arranged household as his king-status rise  
*mæge.*  
 may  
 (ÆCHom\_I,\_8\_[App]:533.3.1562)

In (17) *cynescipe* occurs with a possessive pronoun and the predicate “to rise” and denotes 'kingly power resulting from kingly dignity'. In the next example, a further meaning occurs:

- (18) *Ealra manna hlāford geond þas wīdan worulde, we biddað þīnne*  
 all men's lord throughout the wide world we bid your  
*cynescipe þæt þu nān ðingc ne bēo drēorig oððe sārīg for*  
 majesty that you no thing NEG be cruel or sorrowful for  
*ðan geongan cnihton, ...*  
 the young warrior  
 (LS\_34\_[SevenSleepers]:254.195)

In this example, *cynescipe* is used as a title which can be seen by the fact that it is preceded by the second person possessive and the predicate “bid”. This meaning is a metonymy arising from the salient meaning of *scipe* 'dignity'. As illustrated above with the EME example in (8), 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 (e.g. special riding skills as in *horsemanship*). This meaning does not occur with *hād* and *dōm* because they have salient meanings that would not allow this metonymic shift.

These examples illustrate that all three elements can occur with the same base and are in this respect parallel derivations. However, contra Martin (1906), Dalton-Puffer (1996) and

others, these derivations never denote the same. This can only be explained with their different salient meanings and with their diachronic development.

Parallel derivations for ME *-hōd* and *-ship* with a nominal base of the individual-level predicate type are given below:

- (19) *hit bytokenyth also our ladyys modyrhode and maydynhede, lightnet*  
*it betokens also our lady's motherhood and maidenhood, lightened*  
*wyth þe fyre of loue;*  
*with the fire of love*  
 (MIRK,60.1641)

The formation *mōdyrhōde* 'denotes the state of being a mother' (here referring to the virgin Mary), but according to the MED it could also denote 'the state or fact of being a mother'. The ModE formation with *-ship*, however, bears another meaning: 'the duties (function) of a mother' (which can be abandoned). This finding is in line with A & C's assumptions.

- (20) *Even had self-defence impelled Claire to abandon her mothership.*  
 (1905, Blackw.Mag.Feb 239/1)

To give a brief interim summary, so far it was shown that parallel derivations with different suffixes (*-hood*, *-dom* and *-ship*) never denote the same. What they have in common is that they all build abstract nouns predominantly referring to persons. Since the salient meanings of *hād*, *dōm* and *scipe* (as well as their metonymies) differ, the meanings of parallel derivations also differ. Therefore, these derivations cannot be called rivals in the sense that they are synonymous and compete with each other.

In section 4 I will discuss the paradigmatic nature of the three suffixes in more detail before I will present a lexical-semantic approach of formations with *-hood*, *-dom* and *-ship* that takes into account the diachrony of these elements.

#### 4 The paradigmatic nature of ModE *-hood*, *-dom* and *-ship* derivations

Based on the salient meanings of *hād*, *dōm* and *scipe* in OE, I 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*.

The combination of a relational noun requiring a predicate as argument leads to the semantics of the formations with these elements. According to Löbner (1985, 292) relational nouns describe objects that are in a certain relation to other objects. A noun like *wife* is a relational noun because it describes the relation between a wife and a 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 therefore assume that they are two-place predicates:

- (21) 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<sup>5</sup> referring to 'the office, rank, status, person' (*hād*), 'authority, judgement, office, rank' (*dōm*) and 'state, condition, rank' (*scipe*), and the argument that holds the office, that has the authority or renders a judgement, and that is in a state, holds a rank, 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.

<sup>5</sup> The structure predicate (x,y) could also be described as predicate (R,y) where R stands for referential argument.

It was shown above, that in OE the three elements under investigation had the status of nouns, and since they were relational they required this relation to be fulfilled e.g. in a syntactic phrase as in (22):

- (22) *þæt he þær onfenge [ærcēbiscope] hāde*.  
 that he there received archbishop's office  
 (Bede\_3:21.248.11.2540)

In this example, the genitival modifier *ærcēbiscope* 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.

Another possibility to express the required relation is a morphological structure where the relational noun acts as morphological head and is modified by a noun or adjective:

- (23) *Pa he nolde for his biscop hāde hi aweg adrifan, ...*  
 then he not-wanted for his bishop office they away drive  
 (GDPref\_and\_3\_[C]:7.188.19.2363)

A compound like *biscop hād* satisfies 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 stems in compounds they also require an argument that appears as preceding modifier on the word-level, so this property is retained throughout the change and still found in ModE formations with *-hood*, *-dom* and *-ship*.

Coming back to the brief sketch of the lexical-semantic development based on the salient meanings of *-hood*, *-dom* and *-ship* (section 1), we can say that the ModE suffixes build a paradigm denoting abstract nouns and display the following semantic differences:

- (24) 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 polysemy of the suffixes partly derive from the metonymic shifts that were also briefly mentioned in section 1. For *-hood* the salient meanings 'status, office, rank of N' have been assumed. 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. As concerns *-dom*, the salient meanings 'authority, judgement of N' were assumed and the meanings 'status, territory, realm' 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, see also above). For *-ship* the salient meanings '(resultant) state, condition of N' were assumed. A certain state 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.



The three features [state], [process] and [achievement] also given in (24) include all differences in meaning between the suffixes and result from their diachronic development. They are based on an abstract dimension, the dimension of aspect. These features will be integrated into the analysis proposed in the next section which takes into consideration the diachrony of the suffixes *-hood*, *-dom* and *-ship*.

## 5. An extension of Lieber's (2004) analysis

Lieber's (2004) lexical-semantic framework provides a systematic way to comprehensively describe the semantics of simplexes and complexes, i.e. including all types of word-formation. Her framework has the following properties: it is decompositional, it is cross-categorial and it accounts for polysemy. It should be noted, that her theory has so far been applied to the synchrony of English word-formation but, as has been shown in this paper, questions raised for the synchrony equally matter to the diachrony. 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 under investigation. Therefore, an extension of Lieber's approach will be proposed to explain and analyse the diachronic aspects of word-formation discussed above. In the following, her main assumptions will be introduced.

First, Lieber assumes that a lexical-semantic representation consists of a Semantic/Grammatical Skeleton and the Semantic/Pragmatic Body (see also Hovav & Levin 1992 and Mohanan & Mohanan 1999. In line with Jackendoff (1990), she assumes that the skeleton consists of a function and two or 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:

- (25) a. [ F1 ([argument])]
   
b. [F2 ([argument], [ F1 ([argument])])]

The structures in (1) a. and b. show skeletons of morphological complexes that are built up compositionally. Apart from these structures, Lieber proposes a number of features that are contained in the skeleton. Some of these features<sup>6</sup> 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]<sup>7</sup>:

[+/- **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 (skeleton/body) and the features proposed, let us look at the lexical-semantic representation of the noun *leg*:

- (26) leg: [+ material ([ ], [ ]), ]

<sup>6</sup> Only those features that will be used for analysing the three su\_xes under investigation will be discussed.

<sup>7</sup> Lieber points out (2004, 23) that for her all features have two properties: first, they are equipollent (positive or negative value) and second, they are privative (present or absent; if features are absent they are irrelevant for the item in question.)

The noun *leg* is 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').

Two further features, [B] and [CI], are suggested by Lieber (and relevant for my analysis) 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.

Lieber further claims that all major categories (i.e. A, N, V) take a referential argument R (see Williams 1981 and Higginbotham 1985) which is the external argument of a noun. So, for example a noun like *Londoner* denoting 'person who lives in London' receives a personal interpretation and has a referential use.

In line with Lieber's argumentation, I assume that OE *hād*, *dōm* and *scipe* have skeletons with two arguments and the feature [-material], since they denote abstract entities. The referential argument (R) bears the index (R<sub>i</sub>)<sup>8</sup>.

- (27) a. *hād*: [-material ([R<sub>i</sub>], [ ])]  
b. *dōm*: [-material ([R<sub>i</sub>], [ ])]  
c. *scipe*: [-material ([R<sub>i</sub>], [ ])]

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 *author* or *habit* because these nouns have a processual flavour ('writing a book', 'doing something over and over again'). Since *hād*, *dōm* and *scipe* are all relational nouns and all denote states or events and intuitively involve doing something (have an office, have authority (to judge), create something), they are all processual. Therefore, all three elements also contain the feature [dynamic]. The latter 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*, because 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 so easily in the first place. 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. Apart from these features, I also assume Lieber's features [+B] and [+CI] for the lexical-semantic representations for the three suffixes under investigation because they predominantly denote animate objects which have the potential to occur singularly or in groups, and hence a collective meaning is always possible (*boyhood*, *Christendom*, *readership*, see OED). The

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<sup>8</sup> Contra Lieber, I assume that for all word-formations the head is always the name of the function, i.e. the head is always the leftmost element.

diachronic aspect is represented with the features [state], [process] and [achievement] which were motivated in section 4. The list below summarises all the features I assume for the three suffixes:

## Features

- [-material]: abstract entity
- [dynamic]: situational meaning (processual \_avour)
- [+B]: bounded, limited spatially or temporally
- [+CI]: composed of individuals, composed of units
- [state], [process], [achievement]: abstract features (aspect) resulting from development of the three suffixes

For the Modern English suffixes -hood, -dom and -ship I propose the following lexically semantic representations:

- (28) a. [-material, dynamic, +B, +CI, state ([Ri ], [ ], <base> )  
           *hood*  
       b. [-material, dynamic, +B, +CI, process ([Ri ], [ ], <base> )  
           *dom*  
       c. [-material, dynamic, +B, +CI, achievement ([Ri ], [ ], <base> )  
           *ship*

First, note that the referential argument R is always explicitly marked in the structure, and it is the highest argument in a lexical- semantic representation of a lexical unit. Second, all the features motivated above are included as well as the features [state], [process] and [achievement] which express all differences in meaning found between *-hood*, *-dom* and *-ship*. Since they result from their diachronic development they can be defined as a diachronic imprint: they represent a distinctive influence on the lexica semantics of these elements.

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.

Apart from the main parts of lexical-semantic representations, 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. This mechanism is based on the following principle (Lieber 2004, 61):

- (29) 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.

Lieber's principle accounts for the fact that a compound has only one referent although it is built up of (at least) two stems 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 (actually she assumes complete identification of reference). Hence, the principle accounts for the linking of arguments within a lexical semantic structure as well as for the referential properties of complex words. This principle applies to compounding as well as to derivation.

In the following, this mechanism will be applied to the diachronic data: for the first stage where *hcd*, *dōm* and *scipe* occur as phrasal heads I assume the following structure (the several stages will be illustrated with *hād*) :

- [illegible]



- [ -mat., dyn., +B, +CI, process ([Ri ], [ ], [+mat., -dyn. +B, -CI, state ([Rj ])] ) ]  
*dom* *dog*
- c.  
 [ -mat., dyn., +B, +CI, achiev. ([Ri ], [ ], [+mat., -dyn. +B, -CI, state ([Rj ])] ) ]  
*ship* *dog*

The noun *dog* clearly does not denote a person but an animate entity, it has the meaning 'a member of the genus *Canis*'. The only meaning that matches a meaning of *-hood* is 'status' and thus the derivation *doghood* denotes 'the status of a dog'. An example from the OED is: "The world calls it manhood, it is doghood rather". The base also has the potential to denote collectivity: "A lap-dog would be necessarily at a loss in framing to itself the motives and adventures of doghood at large" (OED). As noted above, the difference between *doghood* and *dogdom* lies in the matching of features of *dog* and *dom*. At first sight, it seems that no meaning of *-dom* matches the meaning of *dog*, since all meanings imply persons (authority, judgement). What we actually find is the meaning 'world of dogs' (realm of dogs), which is also found for other productively built formations with *-dom*. An example from the OED is "A graduate in horse-management and dogdom". It can be observed that metonymic shifts, being the most recent meanings of derivations, occur more frequently with productively built formations. As concerns the formation *dogship*, the suffix *-ship* derives from the same root as ModE *shape* and originally denoted 'created thing' also including 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 derivation best is 'state of N'. Strikingly, the meaning that does occur is the metonymy 'title', which can be nicely illustrated with the following example from the OED "Yes, when your Dogship's damn'd". This meaning is predominantly found for other productively built formations with *-ship* (it could be assumed that the meaning 'state of being a dog' is blocked by the derivation *doghood*).

The analysis of the parallel derivations *doghood*, *dogdom* and *dogship* reveals that all meanings that have developed in the course of time are part of the lexical-semantic representation of a suffix. Moreover, the suffix is sensitive to the meaning of the base, regardless of whether the base denotes a person and matches the salient meanings of *-hood*, *-dom* and *-ship*, or whether the base denotes different properties and as a result matches other meanings (mainly metonymies) of the suffixes. Under these assumptions, it is more than evident that parallel derivations are not synonymous, they form a paradigm building abstract nouns with a general meaning 'state/condition of N' but they also bear meanings different from each other, due to metonymic shifts. Thus, although they share meaning, they are semantically different enough to coexist.

## 6. Conclusion

This paper has dealt with the assumption that parallel derivations built with the suffixes *-hood*, *-dom* and *-ship* are synonymous because they are semantically related. It was shown that if the development of these suffixes is taken into consideration we have to come to the conclusion that they never denote the same. These suffixes are polysemous, they bear the salient meanings they had when they had the status of free morphemes as well as meanings that developed from metonymic shifts. What they have in common is that they all build abstract nouns predominantly referring to persons, and in this respect they build a paradigm. But since their salient meanings as well as their metonymies differ, the meanings of parallel derivations also differ. Therefore, these derivations cannot be called rivals in the sense that they are synonymous and compete with each other. In the analysis which is based on Lieber (2004) and partly on Aronoff & Cho (2001) it was assumed that suffixes bear meaning and that the base is sensitive to their meaning. Thus, the base selects the meaning that matches best the meaning of the suffix implying that suffixes are underspecified. The features [state], [process] and [achievement] can be defined as diachronic imprint of the development of these suffixes which express all the semantic differences between formations with *-hood*, *-dom* and *-ship* and

therefore differences between parallel derivation. This study shows once again that important new insights can be gained if the diachronic perspective is taken into account.

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