

Old English nominal affixation: A structural-functional analysis*

Raquel Vea Escarza, University of La Rioja

Abstract

This journal article carries out a structural-functional analysis of the formation of Old English nouns by means of affixation. The data comprise a total of 4,370 nouns which result from either prefixation or suffixation, retrieved from the lexical database of Old English *Nerthus*. Twenty-five derivational functions, inspired by functional grammars and Pounder's (2000) paradigmatic morphology are proposed to explain the relationship holding between affixes and their bases of derivation. These functions have been divided into split and unified, the former being realized by both prefixes and suffixes and the latter by either prefixation or suffixation. The conclusion is reached that the main target of prefixation is the modification of meaning, in such a way that the meaning of the derivative is less predictable from the input category whereas the main target of suffixation is the change of lexical category, given that the meaning of the derivative is more predictable from the the input category.

Keywords: Old English; word-formation; structural-functional linguistics; paradigmatic morphology

1. State of the art, aims and methodology

One of the features that characterizes the Old English lexicon is the presence of word-formation patterns of affixation, compounding and zero derivation that result from processes that work on a fairly regular and predictable basis. The prefix *mis-* clearly illustrates this point. The verbal derivatives in Figure 1 can be attributed to the attachment of this prefix:

misbēodan 'to ill-use', *misbregdan* 'to change', *miscweðan* 'to speak ill, curse; speak incorrectly', *misfaran* 'to go wrong, transgress; fare ill', *misfōn* 'to make a mistake, be deceived', *mishealdan* 'to neglect', *mislimpan* 'to go wrong', *misrædan* 'to advise wrongly', *misspōwan* 'to fare badly', *missprecan* 'to grumble, murmur',

* This research has been funded through the project FFI2011-29532, which is gratefully acknowledged.

misðēon ‘to mistrive, degenerate’, *misweaxan* ‘to grow improperly’, *misweorðan* ‘to turn out amiss’, *miswrītan* ‘to write incorrectly’

Figure 1: Verbal derivatives with the prefix *mis-*.

Kastovsky (1992: 294) points out that large portions of the lexicon converge formally and semantically thus creating morphologically related word families, very homogeneous as to historical origin in Old English but rather heterogeneous in Present-day English, thus *father* ~ *paternal*, *mother* ~ *maternal*, *mother* - *father* ~ *parents*, *sibling* - *fraternal*, etc. As Kastovsky (1992: 294) remarks, the associative lexicon of Old English, mostly comprised of Germanic lexical items, has turned into a dissociated lexicon in which Germanic terms are semantically related to Romance ones at a large scale, as the examples set above. The other major changes to the Old English lexicon identified in previous research are the decline and loss of word-formation based on stems (Kastovsky 1992, 2006) and the demise of the transparency of the formations.¹ As Lass (1994: 198) puts it, the older an Indo-European language is the more transparent its word-formation, and the more central its derivational morphology to the organization of the lexicon. Eventually, the differences between bases and affixes blur and some derivational affixes become inflectional, while the semantic relationship between affixes and the meanings that they convey is often unanalyzable.

The object of study summarized above has drawn the attention of linguists for more than a century, thus, for instance, Storch's *Angelsächsische Nominalcomposita*, published in 1886. More recently, Kastovsky (1968, 1986, 1989, 1990, 1992, 2006), Trips (2009), Martín Arista (2008, 2009, 2010a, 2010b, 2011a, 2011b, 2011c, 2012a, 2012b, 2013) and Haselow (2011) have carried out, from various perspectives, an analysis focused on the syntagmatic aspects of the derivational morphology of Old English which leaves the meaning changes caused by the processes of word-formation practically untouched. For this reason, this journal article is more oriented to the paradigmatics of this phenomenon, with a view to accounting for the semantics of derivation. Apart from some recent work in the semantic primes of Old English

¹ See Martín Arista and Vea Escarza (2016) on the semantic transparency of Old English word-formation.

(Martín Arista and Martín de la Rosa 2006; de la Cruz Cabanillas 2007; Guarddon Anelo 2009a, 2009b; Mateo Mendaza 2013), the semantic analysis of Old English is restricted to the studies by Weman (1933) and Penttillä (1956). In short, further research is needed in this area and this article deals with the relationship between the form and the meaning of Old English word-formation as reflected in the affixation of nouns.

The methodology of analysis is aimed at relating form to meaning. This is to say, it is necessary, in the first place, to identify the affixes partaking in the formation of nouns by means of prefixation and suffixation in Old English; secondly, a principled and systematic inventory of the meanings of the formation is required. The latter question is raised in the next section.

The set of Old English primarily nominal prefixes distinguished in previous works (Jember et al 1975; Kastovsky 1992; Quirk and Wrenn 1994) includes *æ-* ‘absence of a property or entity’ (*æmynd* ‘jealousy’); *and-*, locative (*andwlita* ‘forehead’); *bi-* ‘about, around’ (*bifylce* ‘neighbouring people’); *ed-* ‘back, again’ (*edcierr* ‘return’); *for-*, intensifier (*forylde* ‘extreme old age’); *mis-* ‘bad, badly’ (*misdaed* ‘misdeed’); *or-* ‘without, lack of’ (*orwurð* ‘ignominy’); *sam-* ‘together’ (*samræden* ‘married state’); *sin-* ‘perpetual, lasting’ (*sinnihte* ‘eternal night’); *un-* oppositive (*unðanc* ‘ingratitude’) and *wan-* ‘lacking, not’ (*wansceaft* ‘misery’). The inventory of nominal prefixes used in this research can be seen in Figure 2. It has been enlarged with respect to the list above by including prefixes of location, like *æt-*, modifiers like *frea-* and quantifiers like *ful-* and *healf-*. Textual realizations and variants are given between brackets:

Ā- (ā-), Æ- (æ-), ÆFTER- (æfter-), ÆT- (æt-), AND- (am-, an-, and-), ANTE- (ante-), ARCE- (arce-), BE- (bi-, bī), EALL- (æll-, al-, eall-), ED- (ed-), EL- (æll-, el-), FOR- (for-, fōr-, fore-), FORE- (for-, fore-, fōre-), FORÐ- (forð-), FRAM- (fram-), FRĒA- (frēa-), FUL- (ful-, full-), GĒAN- (gean-, gēan-), HEALF- (healf-), IN- (in-, inn-), MID- (med-, mid-), MIS- (mis-), OF- (æf-, of-), OFER- (ofer-), ON- (on-), OR- (ōr-, ō-), SAM- (sam-, sām-), SIN- (sin-, sine-), SUB- (sub-), TŌ- (tō-), TWI- (twi-), ÐURH- (ðurh-), UN- (and-, on-, un-), UNDER- (under-), ŪP- (up-, ūp-), ŪT- (ūt-, ūð-), WAN- (wan-), WIÐ- (wið-), WIDER- (wiðer-), YMB- (ymb-, ymbe-).

Figure 2: Old English nominal prefixes.

Previous research (Jember et al 1975; Kastovsky 1992; Quirk and Wrenn 1994) has identified the nominal suffixes *-d* / *-t* / *-ð*, deverbal

(*hīenð* ‘humiliation’); *-dom* ‘state, action of’ (*frēodōm* ‘freedom’); *-ele* / *-l* / *-ol*, action, agent, object, instrumental and locative nouns (*fyndeles* ‘invention’); *-els*, masculine deverbals nouns (*rædels* ‘enigma’); *-en*, feminine denominal nouns (*gyden* ‘goddess’); *-end*, deverbals agent nouns (*belifend* ‘survivor’); *-ere*, agent nouns (*sædere* ‘sower’); *-estre*, feminine agent nouns (*hleapestre* ‘female dancer’); *-et*, abstract and concrete deverbals and denominal nouns (*bærnett* ‘burning’); *-had* ‘state, rank, order, condition, character’ (*abbodhād* ‘abbatial rank’); *-incel*, diminutive (*cofincel* ‘little chamber’); *-ing* ‘proceeding from’ (*æðeling* ‘son of a noble, prince’); *-ling*, personal nouns (*cnæpling* ‘youth’); *-ness*, feminine abstract nouns (*dēopnes* ‘depth’); *-ræden* ‘state, act, condition’ (*burhræden* ‘citizenship’); *-scipe* ‘state, act, fact, condition’ (*glædscipe* ‘gladness’); *-ð* / *-t*, abstract nouns (*strengð* ‘strength’), *-ung* / *-ing*, deverbals nouns (*bliccettung* ‘glittering’); *-wist* ‘being, existence’ (*loswist* ‘deception’). The inventory of nominal suffixes used in the analysis that follows appears in Figure 3 with their textual realizations and variants. The main difference with respect to the list just given is the inclusion of *-bora*, which has been taken into account together with other suffixoids like *-hād*.

-BORA (-bior, -bora), -DŌM (-dōm), -ED (-ad), -EL (-el, -eld, -ele, -elle, -il, -l, -la, -le, -ll, -lle, -ol), -ELS (-els, -ls), -EN (-en, -n), -END (-d, -en, -end, -ende, -iend, -liend, -nd), -ERE (-e, -er, -era, -ere, -igere, -lere, -lère, -re), -ESSE (-esse), -ESTRE (-estre, -istre, -stre, -ystre), -ETT (-et, -eta, -ett, -t, -tt), -FUL (-ful), -HĀD (-hād), -ICGE (-ecge, -icge, -ige), -IG (-ig), -IHT (-iht), -INCEL (-incel), -ING (-ing, -unga, -inga), -LING (-ling), -NES (-enes, -es, -nes, -ness, -nis, -nys, -nyss, -s), -RĀEDEN (-rāeden), -SCIPE (-scipe, -scype), -SUM (-sum), -Ð (-að, -d, -ed, -ot, -oð, -oða, -t, -ð, -ða, -ðe, -ðo, -ðu, -uð), -UNG (-ng, -ung), -WIST (-wist).

Figure 3: Old English nominal suffixes.

As can be seen in figures 2 and 3, the formation of nouns by affixation in Old English is a rather complex phenomenon that comprises a relatively large number of elements, categories and processes. In order to conduct a quantitatively exhaustive study, the data of analysis have been retrieved from the lexical database of Old English *Nerthus* (www.nerthusproject.com, consulted in August 2014). In its current state, the database contains around 32,800 entries, 18,449 of which are nouns. All prefixed and suffixed nouns have been analysed in this

research, with a total of 4,370 derived nouns, including 802 prefixed and 3,556 suffixed nouns.

With the aims and data of analysis thus described, the remainder of this article has the following structure: section 2 offers an overview of the theory of word-formation within a structural-functional framework, with special attention to the derivational functions relevant to the formation of Old English nouns. Section 3 presents the analysis of Old English nouns in terms of rules, operations and functions. Section 4 discusses the results of the analysis. To close this work, section 5 draws the main conclusions of this research.

2. A structural-functional framework for the analysis of Old English noun formation

The aim of this journal article is to study the derivation of Old English affixal nouns and, more specifically, to systematically relate form to meaning in derivation. To pursue this goal, this work lays its foundations on the paradigmatic model of morphology as put forward by Pounder (2000) in a study in 16th century German adjectives. According to Pounder (2000: 65), the basic principle underlying a process framework is that a stem is formally modified in some way, and that this maps onto semantic and/or syntactic modifications. Thus, the derivational paradigm comprises a dynamic (morphological) part and a static (lexical) one, as well as an inventory of lexical functions based on Mel'čuk's (1996, 2006) structural morphology that constitute the main explanatory principle of Pounder's (2000) paradigmatic approach to derivational morphology.

So as to propose a set of lexical functions relevant for Old English, a number of functions have been taken from the work by Pounder (2000), including the primary functions EX(origin)('X'), DIST(ributive)('X'), DIM(inutive)('X') and I(dentity)('X'), as well as the secondary functions PEJ(orative)('X') and AUGM(entative)('X'). However, it has been necessary to resort to other sources because of the little applicability of some of her functions to the data analysed in this work. Moreover, the Old English data show that Pounder's (2000) distinction between *primary* and *secondary* functions is not relevant for the analysis of this language because some functions considered secondary by the author apply to underived lexical items, and viceversa.

In order to define the additional lexical functions required by Old English, this work draws on Martín Arista's (2008, 2009, 2011c) structural-functional theory of morphology as for the concept of the word as a field of functions at different levels. Martín Arista (2008, 2009, 2011c) has put forward a framework of functional morphology that draws on the layering of functional grammars and, consequently, focuses on the points of contact between morphology and syntax. This author has applied different aspects of the morphological framework of the Layered Structure of the Word to the derivational morphology of Old English (Martín Arista 2010a, 2010b, 2011a, 2012a), as well as the structure of the Old English lexicon in general (Martín Arista 2011b, 2013). Apart from the works just cited, the justification for the addition of new functions is to be found in the structural-functional tradition of linguistics. In a nutshell, Dik's (1997a, 1997b) Functional Grammar has provided the typology of entities and Role and Reference Grammar (Foley and Van Valin 1984; Van Valin and LaPolla 1997; Van Valin 2005) has contributed the roles associated with the semantic macroroles ACTOR and UNDERGOER. The latest framework of Functional Grammar, Functional Discourse Grammar (Hengeveld and Mackenzie 2008), has supplied additional semantic categories, while the layered framework consisting of semantically defined units is, to a certain extent, common to all three structural-functional theories.

Considering each theory independently, Dik's Functional Grammar proposes a model of clause structure as a layered structure in which a predicate together with its arguments form a predication, which can be enlarged by means of satellites (adverbials) and operators (morphosyntactic features) to give rise to a clause. Along with layered structure, the taxonomy of basic semantic categories is an integral part of the Functional Grammar theory of the clause. According to Lyons, the inventory of basic semantic categories includes, to begin with, the Individual, which is a first-order entity characterized by the fact that it can be located in space and evaluated in terms of its existence. Secondly, the State-of-Affairs is a second-order entity that can be located in both time and space and evaluated in terms of its reality. Finally, we find a third-order entity, called Propositional Content, which assigns a mental construct that can be located neither in space nor in time, but can be evaluated in terms of its truth.

Functional Discourse Grammar (Hengeveld and Mackenzie 2008) has enlarged the semantic taxonomy adopted by Functional Grammar by drawing on Lyons, and distinguishes, along with Property, Individual, State-of-affairs and Propositional Content, already found in Functional Grammar, the new semantic categories Location, Time, Episode, Manner, Reason and Quantity. These semantic categories are reflected by this framework of analysis in several ways. In the first place, the fundamental distinction between Property and Individual has a correlate in the pair of lexical functions PROP(erty)('X') and ENT(ity)('X'). In the second place, the semantic category Individual is the basis of the lexical function COM(pany)('X'), which coincides with the semantic role defined by many grammars. In the third place, the semantic category Location motivates a figurative and a non-figurative lexical function. The figurative one is LIKE(LOC(ative)('X')) and the literal function is LOC(ative)('X'). Similarly, the semantic category Time motivates two lexical functions, one literal, the other one figurative, namely TEMP(oral)('X') and LIKE(TEMP(oral)('X')). Furthermore, the semantic category State-of-affairs motivates the lexical function PRED(icative)('X'). Finally, the semantic category Quantity, which can make reference to countable and uncountable quantities, might motivate Pounder's lexical functions SING(ular)('X') and PLUR(al)('X'), but the label MASS(ive)('X') has been preferred to designate uncountable amounts.

Role and Reference Grammar (Foley and Van Valin 1984; Van Valin and LaPolla 1997; Van Valin 2005) provides the generalized semantic roles or macroroles ACTOR and UNDERGOER. In a transitive predication, the ACTOR is the first argument and the UNDERGOER the second argument of the verb. In an intransitive predication, the only argument can be an ACTOR or an UNDERGOER, depending on the semantic properties of the predicate. By drawing on the macroroles of Role and Reference Grammar, this analytical framework makes use, to begin with, of the lexical function PAT(ient)('X'). This lexical function expresses the first argument of intransitive and transitive verbs of state (including verbs of perception and cognition). The enlarged inventory of lexical functions distinguishes the function EFF(ector)('X') to account for the first argument of transitive verbs of dynamism. The function AG(ent)('X') has also been included to cover the prototypical agentive (conscious, animate, human) of a prototypically transitive verb (creation,

destruction or consumption). Otherwise, the low profile EFF('X') function is assigned.

Additional sources have provided the motivations of the remaining functions. Among these, the function NEG(ative)('X') has been broken down into three functions of a more specific nature: PRIV(ative)('X'), OPP(osite)('X') and COUNTFACT(ual)('X'), the latter one not applicable to nominal derivation. It can also be the case that a pair of new functions are related to a certain function put forward by Pounder. For example, the functions MAGN(ifier)('X') and MIN(imiser)('X') are related to Pounder's AUGM('X') and DIM('X') but the labels MAGN and MIN have been preferred to make reference to rank, although, as it has just been remarked, DIM('X') is used after Pounder for diminutives.

Three more functions have been necessary to account for the phenomenon of nominal derivation. The function FEM(inine)('X'), which specifies the question of gender; the function ABST(ract)('X'), which makes derived nouns less concrete; and the function PART(itive)('X'), which indicates that a part of a larger amount is referred to.

To summarize, the whole inventory used in the analysis contains 25 lexical functions, which can be seen with an illustration of each in Figure 4:

ABST('DĒOFOL'): *dēofolscipe* 'idolatry'
 AG('RECCAN'): *reccend* 'ruler'
 AUGM('SLÆP 1'): *oferslæp* 'too much sleep'
 COM('HLĪET'): *midhlȳt* 'fellowship'
 DIM('STĀN'): *stānincel* 'little stone'
 DIST('WEG'): *twiweg* 'junction of two roads'
 EFF('GE)MEARCIAN'): *mearcere* 'writer'
 ENT('CÆFIAN'): *cæfing* 'hair-ornament'
 EX('GE)NEFA'): *fōrnefe* 'nephew's daughter'
 FEM('SANG'): *sangestre* 'songstress'
 I('WUND 1'): *wundel* 'wound'
 LIKE(LOC('GE)WINN)): *ingewinn* 'civil war'
 LIKE(TEMP('LĒAN 1')): *edlēan* 'reward'
 LOC('LĒS 2'): *ūtlæs* 'out-pastures'
 MAGN('MANN'): *forōman* 'man of rank'
 MASS('GE)LŌMA'): *andlōman* 'utensils'
 MIN('CYNING'): *undercyning* 'viceroy'
 OPP('SŌM'): *unsōm* 'disagreement'
 PART('HȳD 1'): *healfhȳd* 'half a hide (of land)'
 PAT('GE)EARDIAN'): *eardere* 'dweller'

PEJ('TĪD'): *mistīd* 'evil time'
 PRED('(GE)LEORNIAN'): *leornung* 'learning'
 PRIV('(GE)SCEAFT'): *wansceaft* 'misery'
 PROP('EARG'): *eargscipe* 'idleness'
 TEMP('FEORH'): *midfeorh 1* 'youth'

Figure 4: Inventory of lexical functions used in the analysis

3. Rules and operations in the nominal affixation of Old English

In the analysis of the formation of Old English nouns by prefixation and suffixation, two formalisms have been used: rules and operations. Beginning with rules, three different ones are identified: form rules, which are those affecting the *signifiant* of a lexical or morphological sign and include both the zero rule, or identity relation, and the segmental rules dealing with affixation; semantic rules, which describe the semantic modification and the accompanying conditions; and syntactic rules, which express a modification in the syntactic properties of a lexeme in producing a new lexeme. Rules, which constitute the basic formative mechanism, are mapped onto each other in what is known as operations. The stem conditions within an operation determine the sort of object the rule may apply to. The slot in which the operation takes place indicates the degree of recursiveness of the formation: slot-I operations are non-recursive, and slot-II operations are recursive.

These are the methodological steps that have been taken for carrying out an exhaustive analysis of the operations that produce the derived predicates. Firstly, form rules (FR) have been formulated that stipulate the affix, base and lexical categories involved in the derivation, as in (1):

- (1) $FR_1 <x \oplus \text{bora}; 'FR_1'; s.c.: N>$
cēachbora 'jugbearer' from CĒAC 'jug'

The symbol \oplus marks affixation and either follows a prefix or precedes a suffix. The right column of the operation specifies two types of restrictions: *s.c.* stands for stem conditions and *o.c.* for order conditions. Stem conditions determine the lexical class of the base. As for order conditions, slot-II is activated when the operation is recursive, in such a way that the previously inserted affix would occupy slot-I.

In the second step, semantic rules (SR) have been formulated in order to explain the word-formation meaning in terms of a derivational function, as in (2):

- (2) SR₃ <AUGM('X'); 'SR₃'; s.c.: Adj/N/V>
oferfyr 'excessive distance' from FEORR 1 'far'

Next, two different operations have been described: non-recursive and recursive operations. The former take up slot-I, such as prefixation (3a) and suffixation (3b):

- (3)
- | | |
|--------------------------------------|---|
| a. <wan ⊕ x> ; 'O ₁₁₆ ' ; | s.c.: N |
| <PRIV('X')> | o.c.: slot -I |
| <Σ _N → Σ _N > | <i>wanāht</i> 'poverty' from ÆHT 1 'goods' |
| b. <x ⊕ ful> ; 'O ₆₉ ' ; | s.c.: N |
| <DIST('X')> | o.c.: slot -I |
| <Σ _N → Σ _N > | <i>glæsful</i> 'glassful' from GLÆS 1 'glass' |

Recursive operations, on the other hand, require an extra slot (slot-II) because slot-I is already occupied. Beginning with prefixation, by way of illustration, the derivational function I('X') in final position of the derivational process combines with the function OPP('X') in pre-final position, as illustrated in (4a). Regarding suffixation, the function LIKE(LOC('X')) appears in combination with EX('X'), as represented in example (4b):

- (4)
- | |
|--|
| a. I('X') < OPP('X') |
| {(on) _{<I('X')>} [(un) _{<OPP('X')>} ('SPĒD') _{<N>}] _{<N>}] _{<N>}] _{<N>} |
| <i>onunspēd</i> |
| b. LIKE(LOC('X')) < EX('X') |
| {[(('LĪN') _{<N>} (en) _{<EX('X')>}] _{<Adj>} (weard) _{<LIKE(LOC('X'))>}] _{<Adj>} |
| <i>līnweard</i> |

A total of sixty-nine form rules have been identified in the formation of derived nouns in Old English. For example, the form rule in (5a) corresponds to prefixed predicates with *of-*, whereas the form rule in (5b) accounts for suffixed predicates with *-sum*:

(5)

a. FR₄₅ <of ⊕ x; 'FR₄₅'; s.c.: N/V>*æfdýne* 'declivity' from DŪN 1 'down'*æfdýne*, *æfest* 'envy', *æfgerēfa* 'exactor', *æfgrynde* 'abyss', *æflāst* 'a wandering from the way', *æfðanc* 'insult', *æfwela* 'decrease of wealth', *æfwyrð* 'degradation', *ofæte* 'food', *ofcyrf* 'a section', *offēstre* 'foster-mother', *ofspring* 'offspring', *oftalu* 'rejoinder', *oftrahtung* 'a pulling out'*æfreda* 'what is taken from' from (GE)RĒDAN 'to advise'*æfreda*b. FR₅₅ <x ⊕ sum; 'FR₅₅'; s.c.: N/V>*wynsum 2* 'the pleasant' from WYNN 'joy'*wynsum 2**wendsum* 'winding' from (GE)WENDAN 'to turn'*wendsum*

The rule in (5a) specifies the place that the prefix *of-* occupies, in this case preceding the stem, which is represented by an x. Moreover, the rule stipulates that the stems may be either nouns or verbs. This rule is illustrated with an example belonging to each stem category followed by all those nominal predicates that abide by that particular rule. In turn, the rule in (5b) is applied to suffixed nominal predicates. The suffix *-sum* follows the stem (x), which may be either nominal or verbal, as the instances that conform to the rule demonstrate.

Turning to semantic rules, a total of twenty-five have been formulated. Example (6a) presents the semantic rule for the function LIKE(TEMP('X')), while example (6b) illustrates the rule for the derivational function MASS('X'):

(6)

a. SR₁₃ <LIKE(TEMP('X')); 'SR₁₃'; s.c.: Adj/N/V>*foreweard 1* 'condition' from WEARD 2 'keeper'*foreweard 1**edsceaft* 'new creation' from (GE)SCEAFT 'created being'*æfterealu* 'small beer', *æfterlēan* 'reward', *æfteronfōnd* 'one about to receive', *edcierr* 'return', *edgift* 'restitution', *edlēan* 'reward', *edryne* 'return', *edsceaft**edwinde* 'whirlpool' from (GE)WINDAN 'to wind'*edwinde*b. SR₁₆ <MASS('X'); 'SR₁₆'; s.c.: Adj/N>*andlōman* 'utensils' from (GE)LŌMA 'tool'*æcen 1* 'a wood of oaks', *anburge* 'sureties', *andgelōman* 'implements', *andlōman*, *bryðen* 'brewing', *ēowestre* 'sheepfold', *fiscað* 'fishing', *(ge)fyrhð* 'wooded country', *gestrēagung* 'vegetation', *(ge)mægð 1* 'family group', *mæsseðēnung* 'service of the mass', *peren* 'growing pears', *scræfen* 'place with caves', *syflige* 'food'

ǣlcuht ‘everything’ from $\bar{\text{Æ}}\text{LC 1}$ ‘each’
ǣlcuht

The semantic rule in (6a) specifies the derivational function $\text{LIKE}(\text{TEMP}(\text{‘X’}))$, which conveys a figurative sense of time to the predicates listed in (6a), among others. Such predicates are arranged in groups depending on the stem category. This rule is applicable to adjectival, nominal and verbal stems. The same type of rule is represented in (6b), which stages the derivational function $\text{MASSive}(\text{‘X’})$, expressing the pluralization or collectivization of the referent of the base.

After addressing the different rules, I turn to operations. The following morphological operations insert prefixes into slot-I, where non-recursive affixation takes place. The first part of the operation accounts for the affixation process, the second for the derivational function and the third for the pattern of (re)categorization.

In slot-I, 126 operations of prefixation as well as 148 operations of suffixation have been found. (7a) and (7b) illustrate, respectively, prefixation and suffixation in slot-I:

- (7)
- a. $\langle \text{healf} \oplus \text{x} \rangle$; ‘O₅₅’; s.c.: N
 $\langle \text{PART}(\text{‘X’}) \rangle$ o.c.: slot –I
 $\langle \Sigma_N \rightarrow \Sigma_N \rangle$ *healffers* ‘hemistisch’ from FERS ‘verse’
healffers, *healfgemet* ‘diametra’, *healfhēafod* ‘front of the head’, *healfhunding* ‘a creature having a dog’s head’, *healfhȳd* ‘half a hide (of land)’, *healfmann* ‘half-man’, *healfmarc* ‘half a mark’, *healfweg* ‘half-way’
- b. $\langle \text{x} \oplus \text{wist} \rangle$; ‘O₁₄₇’; s.c.: N
 $\langle \text{ABST}(\text{‘X’}) \rangle$ o.c.: slot –I
 $\langle \Sigma_N \rightarrow \Sigma_N \rangle$ *(ge)gaderwist* ‘companionship’ from (GE)GADA ‘companion’
dægwist ‘food’, *(ge)gaderwist*, *hīredwist* ‘familiarity’, *hūs wist* ‘home’, *lytwist* ‘deception’, *mundwist* ‘guardianship’, *samodwist* ‘a being one with’, *stedewist* ‘steadiness’
- $\langle \text{x} \oplus \text{wist} \rangle$; ‘O₁₄₈’; s.c.: N
 $\langle \text{I}(\text{‘X’}) \rangle$ o.c.: slot –I
 $\langle \Sigma_N \rightarrow \Sigma_N \rangle$ *loswist* ‘loss’ from LOR ‘loss’
loswist

An operation gathers all the relevant information on the morphological, syntactic and semantic aspects of a predicate. The operation represented in (7a) specifies, in the first place, the affix (*healf-*)

and the stem category (noun); in the second place, it indicates the derivational function that the affix performs as well as the degree of recursivity. Slot-I stands for the first level of recursivity, that is, the derivation that takes place on an underived base. Finally, the third part of the operation is devoted to the representation of the source and goal categories of the predicates that partake in the derivation, together with an example.

At this point, after dealing with non-recursive nominal affixation, I concentrate on recursive derivation. Slot-II is reserved for those affixed predicates that derive from already affixed words, since slot-I is occupied by the affix inserted in the previous operation. In slot-II, three operations of prefixation and thirty-three of suffixation have been identified, illustrated in (8a) and (8b), respectively:

- (8)
- a. MIN('X') < LIKE(LOC('X'))
 {(under)_{<MIN('X')>} [{(tō)_{<LIKE(LOC('X'))>} ('(GE)DĀL')_{<N>}]_{<N>} }_{<N>}
undertōdal 'secondary division'
- b. { [{ ('WÆSTM')_{<N>} (bǣre)_{<WITHENT('X')>} }_{<Adj>}]_{<Adj>} (nes)_{<PROP('X')>} }_{<N>}
wæstmbǣrnes 'fruitfulness', *wearihtnes* 'roughness (of skin)'

The operations in (8) display the same structure as those in (7), with the difference that those in (8) involve recursivity, represented with slot-II. For instance, the predicate in (8a) *undertōdal* contains two affixes attached to a stem: *under-*, attaching to a derived base, and *tō-*, which attaches to an underived base.

4. Results of the analysis

To recapitulate, section 3 has addressed the prefixation and suffixation of Old English nouns within a structural-functional framework consisting of an extended inventory of lexical functions inspired in paradigmatic morphology and functional grammars.

The analysis that has been carried out allows us, in the first place, to describe the relationship existing between affixes and lexical functions and viceversa. The results show, to begin with, that a one-to-one correspondence between functions and affixes is rather exceptional. Only one function is realized by an only affix, the function DIM('X') (*-inced*). On the contrary, the functions that are realized by a higher number of affixes are I('X') (*ā-*, *ǣ-*, *æt-*, *and-*, *be-*, *ed-*, *-el*, *-els*, *-en*, *-end*, *-estre*, -

ett, for-, fore-, forð-, fram-, -hād, -icge, in-, -ing, -ling, -nes, ō-, of-, ofer-, on-, -rāden, -scipe, tō-, -ð, under-, -ung, ūp-, ūt-, -wist, ymb-); EX('X') (*and-, be-, ed-, -el, -els, -en, -ere, -ett, for-, -icge, -ig, -ing, -ling, ō-, of-, on-, -sum, tō-, -ð, ðurh-, under-, -ung, ūp-, wið-, ymb-); and PRED('X')* (*-dōm, -el, -els, -en, -end, -ere, -ett, -hād, -ing, -ling, -nes, -rāden, -scipe, -sum, ð, -ung*).

An interesting result of the analysis is that lexical functions can be divided into two groups on the grounds of the affixation process that realizes them: split and unified functions. Split functions can be realized by both prefixes and suffixes whereas unified functions opt for either prefixation or suffixation. The split functions that can consistently be expressed prefixally and suffixally in noun formation are the function I('X'), which relates two partial synonyms to each other, the associative functions EX('X'), WITHENT('X') and WITHPROP('X'), and the quantification functions DIST('X') and MASS('X'), which can be realized by prefixes and suffixes. The functions that are realized by prefixes only include: COM('X') (*mid-, sam-*), LIKE(LOC('X')) (*æfter-, æt-, and-, be-, el-, fore-, forð-, fram-, gēan-, in-, of-, ofer-, on-, tō-, ūp-, ūt-, wiðer-*), LIKE(TEMP('X')) (*æfter-, ed-, fore-*), LOC('X') (*æfter-, and-, be-, for-, fore-, forð-, in-, mid-, of-, ofer-, on-, under-, ūp-, ūt-, ymb-*), MAGN('X') (*arce-, for-, fore-, forð-, fram-, frēa-, of-, ofer-, sin-*), OPP('X') (*ante-, un-*), PEJ('X') (*for-, mis-*), PRIV('X') (*ā-, ā-, of-, or-, wan-*), TEMP('X') (*æfter-, ed-, fore-, mid-, ofer-, sin-*). The lexical functions that result from suffixation only are: AG('X') (*-el, -end, -ere, -estre, -icge*), DIM('X') (*-incel*), EFF('X') (*-bora, -el, -end, -ere, -estre, -ig, -ing, -ling*), ENT('X') (*-el, -els, -en, -end, -ere, -ett, -ing, -ling, -nes, -ð*), FEM('X') (*-el, -en, -esse, -estre, -icge, -ð*), PROP('X') (*-dōm, -ed, -el, -els, -en, -end, -ere, -ett, -hād, -ing, -ling, -nes, -rāden, -scipe, -ð, -ung*).

It follows from this description of unified functions that both PEJ('X') and TEMP('X') are realized exclusively through prefixation. The phenomenon of negation, associated with the lexical functions OPP('X') and PRIV('X') is clearly prefixal. Pairs of a non-figurative and a figurative function, including LOC('X') and LIKE(LOC('X')), as well as TEMP('X') and LIKE(TEMP('X')), are also realized by means of prefixation. Regarding suffixation, deverbal nominalizations based on the first argument, including AG('X'), EFF('X') and FEM('X'), and deverbal nominalizations based on the second argument or non-

arguments, including ENT('X') and PROP('X'), consistently opt for suffixal means. PRED('X'), which belongs in this group, is consistently suffixal too.

Turning to the relationship between the base category and the derivational function, the analysis demonstrates that the vast majority of functions apply to bases of more than one category. ABST('X') is the function that displays a greater diversity of categories: adjectives, adverbs, nouns, numerals, pronouns and verbs; whereas there are a few functions (DIM('X'), ENT('X'), I('X'), MAGN('X'), MIN('X'), PART('X') and PEJ('X')) whose predicate bases belong to an only category, either noun or verb.

5. Conclusion

This journal article has explained the change of meaning caused by the derivational processes of prefixation and suffixation of Old English nouns within a structural-functional linguistic framework. The structural part of this framework has been based on paradigmatic morphology as represented by Pounder (2000) while the functional side has drawn on Functional Grammar, Functional Discourse Grammar and, above all, Role and Reference Grammar. In this respect, the conclusion can be drawn that only an eclectic theoretical framework and methodology can solve the complex problems posed by the lexicon of a historical language like Old English.

On the descriptive side, the data indicate that the correspondence between affix and functions is seldom biunivocal. This is also the case with the correspondence between functions and lexical categories. The wide variety of affixes associated with the function I('X') (*ā-*, *ǣ-*, *æt-*, *and-*, *be-*, *ed-*, *-el*, *-els*, *-en*, *-end*, *-estre*, *-ett*, *for-*, *fore-*, *forð-*, *fram-*, *-hād*, *-icge*, *in-*, *-ing*, *-ling*, *-nes*, *ō-*, *of-*, *ofer-*, *on-*, *-rāden*, *-scipe*, *tō-*, *-ð*, *under-*, *-ung*, *ūp-*, *ūt-*, *-wist*, *ymb-*) constitutes a remarkable source of opaqueness to the affixal system, given that there are instances of all the affixes listed above in which no meaning change is caused by the affix.

From the explanatory point of view, distinguishing unified from split functions allows us to conclude that there are more functions that rely on prefixation exclusively than there are functions restricted to suffixation, which means that a wider array of meanings can be expressed by prefixation and, more importantly, that the meaning conveyed, as a

general rule, by the instances of prefixation under analysis is more contentful, as opposed to the meaning contributed by suffixation, which, with some exceptions, is more structural. Put in other words, as far as the formation of Old English nouns is concerned prefixation is meaning oriented because the main target of the derivational process is the modification of meaning, in such a way that the meaning of the derivative is less predictable from the general characteristics of the input category; whereas suffixation is class oriented, given that the main target of the derivational process is the modification of lexical class, so that the meaning of the derivative is more predictable from the general characteristics of the input category.

References

- de la Cruz Cabanillas, Isabel. 2007. "Semantic primes in Old English: a preliminary study of descriptors". *SELIM* 14: 37-58
- Dik, Simon. 1997a (1989). *The Theory of Functional Grammar. Part 1: The Structure of the Clause*. Ed. Kees Hengeveld. Berlin: Mouton de Gruyter.
- Dik, Simon. 1997b. *The Theory of Functional Grammar, Vol. 2: Complex and Derived Constructions*. Ed. Kees Hengeveld. Berlin: Mouton de Gruyter.
- Foley, William and Robert Jr. Van Valin. 1984. *Functional Syntax and Universal Grammar*. Cambridge: Cambridge University Press.
- Guarddon Anelo, Maria del Carmen. 2009a. "The Natural Semantic Metalanguage of Old English Compound Adpositions". *ES-English Studies* 30: 61-83.
- Guarddon Anelo, Maria del Carmen. 2009b. "Un análisis de las propiedades combinatorias de los primitivos semánticos a través de las adposiciones complejas en inglés antiguo". *Revista Española de Lingüística*. Vol 39/2: 93-122.
- Haselow, Alexander. 2011. *Typological Changes in the Lexicon. Analytic Tendencies in English Noun Formation*. Berlin: Mouton de Gruyter.
- Hengeveld, Kees, and J. Lachlan Mackenzie. 2008. *Functional Discourse Grammar. A typologically-based theory of language structure*. Oxford: Oxford University Press.

- Jember, Gregory K., John C. Cavell, et al. 1975. *English-Old English, Old English-English Dictionary*. Boulder, Colorado: Westview Press.
- Kastovsky, Dieter. 1968. *Old English Deverbal Substantives Derived by means of a Zero Morpheme*. Tübingen: Eberhard-Karls-Universität.
- Kastovsky, Dieter. 1986. "Deverbal nouns in Old and Modern English: from stem-formation to word-formation". *Historical Semantics-Historical Word Formation*. Ed. Jacek Fisiak. Berlin: Mouton de Gruyter. 221-261.
- Kastovsky, Dieter. 1989. "Morphophonemic alternations and the history of English: Examples from Old English". *Historical English. On the occasion of Karl Brunner's 100th birthday*. Ed. Manfred Markus. Innsbruck: Universität. 112-123.
- Kastovsky, Dieter. 1990. "The typological status of Old English Word Formation". *Papers from the 5th International Conference on English Historical Linguistics*. Eds. Sylvia M. Adamson, Vivien Law, Nigel Vincent and Susan Wright. Amsterdam: John Benjamins. 205-224.
- Kastovsky, Dieter. 1992. "Semantics and vocabulary". *The Cambridge History of the English Language I: The Beginnings to 1066*. Ed. Richard M. Hogg. Cambridge: Cambridge University Press. 290-408.
- Kastovsky, Dieter. 2006. "Typological Changes in Derivational Morphology". *The Handbook of the History of English*. Eds. Ans van Kemenade and Bettelou Los. Oxford: Blackwell publishing. 151-177.
- Lass, Roger. 1994. *Old English: A Historical Linguistic Companion*. Cambridge: Cambridge University Press.
- Martín Arista, Javier. 2008. "Unification and Separation in a Functional Theory of Morphology". *Investigations of the Syntax-Semantics-Pragmatics Interface*. Ed. Robert D. Van Valin, Jr. Amsterdam: John Benjamins. 119-145.
- Martín Arista, Javier. 2009. "A Typology of Morphological Constructions". *Deconstructing Constructions*. Eds. Christopher Butler and Javier Martín Arista. Amsterdam: John Benjamins. 85-115.
- Martín Arista, Javier. 2010a. "OE Strong Verbs Derived from Strong Verbs". *SKASE Journal of Theoretical Linguistics* 7: 36-56.

- Martín Arista, Javier. 2010b. "Lexical Negation in Old English". *NOWELE (North-Western European Language Evolution)* 60/61: 89-108.
- Martín Arista, Javier. 2011a. "Morphological Relatedness and Zero Alternation in Old English". *Morphosyntactic Alternations in English. Functional and Cognitive Perspectives*. Ed. Pilar Guerrero Medina. Sheffield: Equinox. 339-362.
- Martín Arista, Javier. 2011b. "Adjective Formation and Lexical Layers in Old English". *English Studies* 92/3: 323-334.
- Martín Arista, Javier. 2011c. "Projections and Constructions in Functional Morphology: The Case of HRĒOW". *Language and Linguistics* 12/2: 393-425.
- Martín Arista, Javier. 2012a. "The Old English Prefix Ge-: A Panchronic Reappraisal". *Australian Journal of Linguistics* 32/4: 411-433.
- Martín Arista, Javier. 2012b. "Morfología flexiva en RRG". *El funcionalismo en la teoría lingüística*. Eds. Ricardo Mairal, Lilián Guerrero and Carlos González. Madrid: Akal Universitaria. 43-58.
- Martín Arista, Javier. 2013. "Recursivity, Derivational Depth and the Search for Old English Lexical Primes". *Studia Neophilologica* 85/1: 1-21.
- Martín Arista, Javier, and Victoria Martín de la Rosa. 2006. "Old English Semantic Primes: Substantives, Determiners and Quantifiers". *ATLANTIS* 17: 9-28.
- Martín Arista, Javier, and Raquel Veá Escarza. 2016. "Assessing the Semantic Transparency of Old English Affixation: Adjective and Noun Formation". *English Studie* 91/1: 61-77.
- Mateo Mendaza, Raquel. 2013. "The Old English Exponent for the Semantic Prime TOUCH. Descriptive and Methodological Questions". *Australian Journal of Linguistics* 33:4. 449-466.
- Mel'čuk, Igor. 1996. "Lexical Functions: A Tool for the Description of Lexical Relations in the Lexicon". *Lexical functions in lexicography and natural language processing*. Ed. Leo Wanner. Amsterdam: John Benjamins. 37-102.
- Mel'čuk, Igor. 2006. *Aspects of the Theory of Morphology*. Ed. David Beck. Berlin: Mouton de Gruyter.
- Penttilä, Erkki. 1956. *The Old English Verbs of Vision. A Semantic Study*. Helsinki: *Mémoires de la Société Néophilologique* XVII, I.

- Pounder, Amanda. 2000. *Processes and Paradigms in Word-Formation Morphology*. Berlin: Mouton de Gruyter.
- Quirk, Randolph, and Charles L. Wrenn. 1994 (1955). *An Old English Grammar*. DeKalb, Illinois: Northern Illinois University Press.
- Storch, Theodor. 1886. *Angelsächsische Nominalcomposita*. Strasburg.
- Trips, Carola. 2009. *Lexical Semantics and Diachronic Morphology. The development of -hood, -dom and -ship in the History of English*. Tübingen: Max Niemeyer Verlag.
- Van Valin, Robert Jr. 2005. *Exploring the Syntax-Semantics Interface*. Cambridge: Cambridge University Press.
- Van Valin, Robert Jr., and Randy J. LaPolla. 1997. *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.
- Weman, Bertil. 1933. *Old English Semantic Analysis and Theory with Special Reference to Verbs Denoting Locomotion*. Lund: Lindstedts Universitets Bokhandel.