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**Abstract:** This paper argues for the bound character of Old English *-bora* and explains it as a grammaticalization of the free lexeme *bora* ‘bearer’. The grammaticalization *bora* > *-bora* is explained as a process of meaning weakening and generalization whereby a transitive clausal correlate has yielded way to an intransitive clausal correlate of the copulative type (transitive > possessive > locative /copulative). In Lexeme-Morpheme Base Morphology the loss of lexical status with the corresponding gain of grammatical status is described as a feature switch requiring a transposition verb: noun and leading to a functional derivation with overt subjective and objective function.

**Key words:** *Old English, grammaticalization, lexicalization, Lexeme-Morpheme Base Morphology, lexical derivation, syntactic derivation*

## 1. Aims and scope

In Kastovsky’s words (1992: 294) “much of the OE vocabulary is derivationally related by productive word-formation patterns” including zero-derivation, compounding and affixation. Of these widespread and deep-rooted derivational processes, this journal article focuses on affixation and, to be more specific, on the formation of nouns by suffixation. The research question that is addressed in this work concerns the status of the derivational element *-bora*. That is to say, whether derivation with *-bora* constitutes an instance of suffixation or, contrariwise, involves compounding. The reason for posing this question is that the suffix *-bora* is a verbal element, morphologically related to the verb *beran* ‘bear’ and, as such, Kastovsky (1992) does not consider it a suffix, whilst Quirk and Wrenn (1994) do. In order to answer this question, this article analyzes the Old English nominal suffix *-bora* and compares it to the the suffixes *-a*, *-e*, *-en*, *-end*, *-ere/-re*, *-icge*, *-estre/-istre/-ystre*, *-o* and *-u*. The analysis shows that the segment at stake is no longer a free lexeme but rather a bound form. Unlike previous approaches, such as Quirk and Wrenn’s (1994), evidence is gathered to hold that a process of grammaticalization has taken place that motivates the insertion of *-bora* into the inventory of derivational morphemes. Therefore, this paper contributes to the research project in Old English word-formation and the structure of the lexicon represented by Kastovsky (1986, 1989, 1990, 1992, 2005, 2006), who deals with the typological shift from invariable base morphology to variable base morphology that takes place in Old English; and Martín Arista (2008, 2009, 2010a, 2010b, 2010c, 2011a, 2011b, 2011c, fc.-a, fc.-b, fc.-c), who focuses on the lexical layers and derivational processes of Old English. This work also contributes to the study in the rise of analytic tendencies in English word-formation at the expense of synthetic tendencies (Haselow 2011) or, put in other words, it focuses on the coexistence of zero derivation and affixation, by means of, respectively, *-a*, *-e*, *-o*, *-u*, and *-en*, *-end*, *-ere/-re*, *-icge*, *-estre/-istre/-ystre*.

The data of analysis have been retrieved from the lexical database of Old English Nerthus ([www.nerthusproject.com](http://www.nerthusproject.com)). The outline of the article is as follows. Section 2 presents the main units and patterns found in Old English noun suffixation and draws a distinction between explicit and implicit morphological relatedness. Section 3 lays the theoretical foundations of the work, discusses the relevant aspects of Lexeme-Morpheme

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Base Morphology (Beard 1995; Beard and Volpe 2005) and applies them to Old English word-formation. Then, section 4 discusses the grammaticalization *bora* > *-bora*. Finally, the conclusions of the article are summarised in section 5.

## 2. The suffixation of nouns in Old English: explicit and implicit relatedness

Kastovsky (1992) provides a list of the main nominal suffixes that comprises *-d/-t/-ð*, *-dōm*, *-ele(e)/-l(a)/-ol*, *-els*, *-en*, *-end*, *-ere*, *-estre*, *-et(t)*, *-hād*, *-incel*, *-ing*, *-lāc*, *-ling*, *-ness*, *-rāden*, *-scipe*, *-ð(o)/-t*, *-ung/-ing*, *-wist*. For Mitchell (1992) the most remarkable Old English nominal suffixes are *-að/-oð*, *-end*, *-hād*, *-ing*, *-māel*, *-rāden*, *-ð(o)/-ð(u)* and *-ung/-ing*. Quirk and Wrenn (1994) offer the largest inventory of nominal suffixes and draw a distinction between the most frequent (*-dōm*, *-end*, *-nes(s)/-nis/-nys*, *-scipe* and *-ing/-ung*) and the least frequent (*-bora*, *-el/-ol/-ul*, *-els*, *-en*, *-ere*, *-estre*, *-et(t)*, *-hād*, *-ing*, *-lāc*, *-ling*, *-oð/-að*, *-rāden*, *-ð(o)/-ð(u)*). Among other differences, Kastovsky (1992) describes *-bora* as a free form in compounding whereas Quirk and Wrenn (1994) consider it a bound form. This question is addressed in the next section. Meanwhile, the functions and properties of distribution of the other suffixes are presented briefly.

The suffixes in the series *-d/-t/-ð* create deverbal nouns, as is the case with *æbylgð* ‘anger’ and *hæld* ‘health’. The suffix *-dōm* forms denominal and deadjectival abstract nouns with the meaning ‘state, condition, fact of being, action of’. Denominal nouns include *caserdom* ‘empire’, *martyrdom* ‘martyrdom’, *campdom* ‘contest’, and *læcedom* ‘medicine’. Deadjectival nouns, among others, are *freedom* ‘freedom’, *haligdom* ‘holiness, sanctuary’, *wisdom* ‘wisdom’. The group of suffixes *-ele(e)/-l(a)/-ol/-ul* are attached to action nouns, as in *scendle* ‘reproach’, *ðreal* ‘reproof’ and *hwyrfel* ‘circuit, whirlpool’; agent nouns, as is the case with *æftergengel* ‘successor’, *bydel* ‘herald’ and *bæcslitol* ‘backbiter’; object/result nouns (*scytel* ‘dart, missile’, *fyndel* ‘invention’ and *bitol* ‘bridle’); instrumental nouns like *sceacel* ‘shackle’, *tredel* ‘sole of the foot’ and *spinel* ‘spindle’; and locative nouns such as *smygel* ‘burrow, retreat’, *stigel* ‘stile’ and *setl* ‘seat’. The suffix *-els* forms concrete masculine deverbal nouns from strong and weak verbs, as in *rædels* ‘counsel’, *brædels* ‘carpet’ and *gyrdels* ‘girdle’. The suffix *-en* forms feminine nouns of action (*sien* ‘sight’, *fillen* ‘falling’, *swefen* ‘sleep, dream’), object/result (*rædenn* ‘reckoning, estimation’, *sellen* ‘gift’, *fæsten* ‘fortress’), instrument (*hlæden* ‘bucket’, *lifēn* ‘sustenance’, *fæsten* ‘fastener’) and locative nouns (*hengen* ‘rack, cross’, *byrgen* ‘grave’). The suffix *-end* forms deverbal agent nouns from both weak and strong verbs. The agent nouns are masculine, whereas the action nouns display the feminine gender. Masculine agent nouns include *biddend* ‘petitioner’, *lærend* ‘teacher’ and *dælnimend* ‘participle’, while object nouns include *belifend* ‘survivor’ and *gehæftend* ‘prisoner’. The suffix *-ere* forms nouns from other nouns and from verbs. Examples of deverbal nouns include *leornere* ‘disciple’ (agent), *sceawere* ‘mirrow’ (object), *punere* ‘pestle’ (instrumental), *wordsamnere* ‘catalogue’ (locative), *dirnegeligere* ‘sailor’ (action), etc. Denominal nouns form agent nouns like *scipere* ‘sailor’, *scohere* ‘shoemaker’ and *sædere* ‘sower’. The suffix *-estre* forms deverbal and denominal feminine agent nouns. Deverbal nouns include *hleapestre* ‘female dancer’, *wæscestre* ‘washer’ and *tæppestre* ‘female tavern-keeper’. Denominal nouns are *byrðestre* ‘female carrier’, *fiðestre* ‘female fiddler’ and *lybbestre* ‘sorceress’. The suffix *-et(t)* forms deverbal and denominal neuter nouns. Deverbal nouns include *rewett* ‘rowing’, *hiwett* ‘hewing’ and *bærnnett* ‘burning’, while *ðiccett* ‘thicket’, and *rymet* ‘space, extent’ qualify as denominal nouns. The suffix *-hād* conveys the meaning of ‘state, rank, order, condition, character’ in instances like *abbudhad* ‘rank of an abbot’, *camphad* ‘warfare’ and *cildhad* ‘childhood’. The suffix *-incel* forms neuter denominal diminutives such as *bogincel* ‘small bough’, *busincel* ‘little house’ and

*scipincel* ‘little ship’. The suffix *-ing* forms masculine nouns denoting ‘proceeding or derived from’ from nouns (*wicing* ‘pirate’), adjectives (*ierming* ‘poor wretch’) and verbs (*fostring* ‘fosterchild’). The suffix *-lāc* forms masculine abstract nouns from nouns and verbs and denotes ‘state, act, quality, nature of’ from nouns and verbs. Denominal nouns include *bodlac* ‘decree’, *brydlc* ‘marriage, marriage gift’ and *lyblac* ‘witchcraft’, while *breowlac* ‘brewing’ qualifies as a deverbal noun. The suffix *-ling* derives nouns from adjectives, nouns and verbs. Deadjectival nouns are *deorling* ‘favourite’ and *geongling* ‘youth’; denominal nouns include *cnæpling* ‘youth’, *fostorling* ‘fosterchild’ and *ðeowling* ‘slave’; *hyrling* ‘hireling’, *ræpling* ‘prisoner’ and *hwirfling* ‘that which turns’ are deverbal nouns. The suffix *-ness* and its variant forms *-nis*, *-nes* and *-nys* derive feminine abstract nouns from adjectives and verbs. Deadjectival nouns include *æðelness* ‘nobility’, *beorhtness* ‘brightness’ and *biterness* ‘bitterness’, *clænness* ‘purity’. Among deverbal nouns we find *blinness* ‘cessation’, *brecness* ‘breach’ and *costness* ‘temptation’. The suffix *-oð/-að* forms masculine nouns, mainly abstract, as is the case with *drohtoð* ‘way of life’, *hergað* ‘plundering’ and *langað* ‘longing’. The suffix *-ræden* derives feminine denominal nouns with the meaning ‘state, act, condition’, as in *bebodræden* ‘command, authority’, *broðorræden* ‘fellowship, brotherhood’ and *campræden* ‘war, warfare’. The suffix *-scipe* forms masculine abstract nouns from adjectives and nouns with the meaning ‘state, act, fact, condition’. Denominal nouns include *bodscipe* ‘message’, *freondscipe* ‘friendship’ and *leodscipe* ‘nation, people’, while *gecorenscipe* ‘election, excellence’, *unwærscipe* ‘carelessness’ and *hwætscipe* ‘activity, vigour’ are deadjectival nouns. The suffix *-ung/-ing* forms deverbal nouns from both strong and weak verbs. Action nouns include *binding* ‘binding’ and *huntung* ‘hunting’. Instances of agent nouns include *gaderung* ‘gathering, assembly’ and *gemeting* ‘meeting, assembly’. Among object/result nouns we find *beorning* ‘incense’ and *agnung* ‘possessions’. Instrumental nouns include instances such as *lacnung* ‘medicine’ and *wering* ‘dam’. *Cyping* ‘market’ and *wunung* ‘dwelling’ qualify as locative nouns. Finally, the suffix *-wist* derives feminine abstract nouns from nouns (*huswist* ‘household’), adjectives (*loswist* ‘loss’) and adverbs (*midwist* ‘presence’).

Along with these suffixes, which bear an explicit derivational relationship to the base of derivation because the derivational segment is clearly distinguishable, there are other suffixes that bear an implicit derivational relationship since the same segment expresses the derivational as well as the inflectional function. González Torres (2010) holds that there is continuity between inflection and derivation in Old English morphology because some endings function simultaneously as markers of derivation and inflection, thus *-a* in *andettan* ‘confess’ > *andetta* ‘one who confesses’, *-e* in *hierdan* ‘protect’ > *hierde* ‘keeper’, *-o* in *fullian* ‘fill up’ > *fyllo* ‘fillness’ and *-u* in *giefan* ‘give’ > *giefu* ‘gift.’ While concurring with González Torres (2010) on the difficulty of drawing a clear-cut distinction between inflection and derivation in a language with variable base morphology such as Old English (Kastovsky 2006), I discuss these suffixes in the wider context of zero derivation, mainly from strong verbs. Such a discussion not only contextualizes the phenomenon but also allows us to introduce the sentential counterparts of the derivations at stake.

Zero derivation is derivation without derivational morphemes. It can be broken down into consonantal and vocalic zero derivation. By applying this distinction, the list of zero derivatives compiled by Pilch (1970) can be divided as follows. Within consonantal zero derivation we find nouns like *rād* ‘ride, riding, expedition’ (< *rīdan* ‘ride’ str. I), *gielp* ‘boasting, pride, arrogance’ (< *gielpān* ‘boast, exult’ str. III), *bār* ‘bier’ (< *beran* ‘bear’ str. IV), *æt* ‘eatables, food’ (< *etan* ‘eat’ str. V), *fær* ‘calamity, sudden danger’ (< *faran* ‘set forth; happen, exist, act’ str. VI); denominal weak verbs of class 1 with *i*-umlaut or gemination such as *ānswerian* ‘to answer’ (< *andswaru* ‘answer’), *dāeman* ‘to judge’ (< *dōm* ‘doom, judgement’), *fyllan* ‘to fill’ (< *full* ‘full’), *fēdan* ‘to feed’ (< *fōda* ‘food’), *fēran* ‘to go’ (< *fār*

‘journey’), *ferian* ‘to carry’ (< *fær* ‘movement’), *gremman* ‘to enrage’ (< *gram* ‘angry’) and *hælan* ‘to heal’ (< *hāl* ‘health’); denominal weak verbs of class 2 without *i*-umlaut or consonant gemination of the type *andswarian* ‘to answer’ (< *andswaru* ‘answer’), *lufian* ‘to love’ (< *lufu* ‘love’), *geōmrian* ‘to be sad’ (< *geōmor* ‘sad’), *hēan* (< \**hēahian* ‘to raise’ < *hēah* ‘high’), *smēagan* ‘to think’ (< *smēah* ‘sagacious’), *twēogan* ‘to doubt’ (< *twēo* ‘doubt’); and causative deverbal weak verbs of class 1 derived from strong verbs like *āflīegan* ‘expel’ (< *flēan* ‘flee’), *drencan* ‘give to drink’ (< *drincan* ‘drink’), *rāeran* ‘raise’ (< *rīsan* ‘rise’), *sengan* ‘sing’ (< *singan* ‘sing’), *settan* ‘make sit’ (< *sittan* ‘sit’) and *swebban* ‘put to sleep’ (< *swefan* ‘sleep’). Within vocalic zero derivation we find nouns as well as adjectives. Beginning with nouns, there are instances of derivation from strong verbs such as *lyre* ‘loss’ (< *lēosan* ‘lose’ str. II) and *wealda* ‘ruler’ (< *wealdan* ‘rule’ str. VII). As for adjectives, among those based on strong verbs we find *bryce* ‘fragile’ (< *brecan* ‘to break’ str. IV), *eað-fynde* ‘easy to find’ (< *findan* ‘to find’ str. III), *gefēre* ‘accessible’ (< *faran* ‘to set forth’ str. VI), *lyge* ‘lying, false’ (< *lēogan* ‘to lie’ str. II), *oncnāwe* ‘known, recognised’ (< *cnawan* ‘to know’ str. VII), *swice* ‘fallacious, deceitful’ (< *swīcan* ‘to wander’ str. I) and *ungemete* ‘huge’ (< *metan* ‘to measure’ str. V). These derivatives evidence that the category change associated with zero derivation causes a shift of inflectional paradigm that, in the case of nouns and adjectives, usually displays a vowel in the reference form, in such a way that that vowel bears the mark of inflection and derivation. The case of verbs is similar, although all of them belong in the consonantal type of zero derivation given the form of the infinitive.

In order to further discuss these types it is necessary to introduce the relevant aspects of Lexeme-Morpheme Base Morphology. This is done in the next section.

### 3. Theoretical aspects: Lexeme-Morpheme Base Morphology

The theoretical framework chosen for this study is Lexeme-Morpheme Base Morphology, as proposed by Beard (1995) and Beard and Volpe (2005). The advantage of this framework is that it decomposes a complex concept such as derivational relationship into simpler categorial and functional categories and, moreover, because it provides a unified inventory of derivational and inflectional functions compatible with explicit and implicit morphological relatedness.

Lexeme-Morpheme Base Morphology is known for its strict distinction between lexemes and grammatical morphemes. Morpheme-based morphology assumes that language contains only one type of meaningful unit, the morpheme, which includes stems and affixes, all of which are signs. Lexeme-based morphology, on the contrary, assumes that only lexemes, derived or underived, are signs, and that affixes, reduplication, re-vowelling, metathesis, subtraction, stem mutation, and the like, are means of phonologically marking independent derivational operations which a lexeme might have undergone. This means that lexemes refer to something in the real world, whereas morphemes refer exclusively to universally available closed class grammatical categories (such as Tense, Aspect, and Number) and may consist of independent phonemic strings, affixes, infixes, changes in accent or tone, or even predictable omissions (zero morphemes).

The basic idea, therefore, is that the lexicon contains exclusively noun, verb and adjective stems, whereas grammatical morphemes are the output of phonological operations independent of the semantic operations they realize. In this framework, affixation is reduced to an exclusively phonological operation. This is called the Separation Hypothesis. The Separation Hypothesis splits derivation, both lexical and inflectional, into three processes: lexical (L-) derivation, inflectional (I-) derivation, and morphological spelling. Derivation comprises operations on abstract lexical and inflectional category functions such as [+Plural,

-Singular], [+Past, -Present], [+1st], and the like. Spelling is the purely phonological realization of the morphological categories of any base lexeme that has undergone such derivation. Its function is to distinguish stems that have undergone derivation from those which have not. If the derivation is inflectional, the marker may be attached to the lexical stem or assigned independently to a structural position in syntax in ways which syntax alone cannot predict. Lexical derivation takes place in the lexicon and inflectional derivation in the syntax. Beard (1995) distinguishes four kinds of lexical derivation: transposition, functional derivation, feature switches and expressive derivations. Transpositions change the lexical category of a lexeme. Functional derivations add a semantically interpretable category function, such as Subject, Object, Locus and Manner. Lexical switches change the value of inherent lexical features, such as Gender and expressive derivations comprise the Augmentative and Diminutive and reflect the attitude of the speaker. The base rule component of the theory cannot be syntactic only but must accommodate both lexical operations (derivations) and high-level syntactic operations (inflections). The types of lexical derivation rules that are available to grammars, therefore, are determined by the categories of the base rule component and the lexicon. This is called the Base Rule Hypothesis.

The Universal Grammatical Function Theory stipulates that the functions of inflectional and lexical derivation are the same.

Given this overview of the theory, instances of implicit morphological relatedness such as *rīdan* ‘to ride’ ~ *riḍḍa* ‘rider’ imply three types of lexical derivation: a transposition whose input is a verb and whose output is a noun, a functional derivation that assigns the subjective role, and a featural switch. These three types of lexical derivation are illustrated, respectively by figures 1-3, based on Beard (1995, 2005) [where NP stands for Noun Phrase, C for Complementiser, CP for Complementiser Phrase, IP for Inflectional Phrase and VP for Verb Phrase; the basic parallel is with a sentence, in which IP contains a word level category such as *will*, *must*, etc. expressing verbal inflection and the Complementiser such as *that* introduces clausal complements; notice in this respect that the Old English relative is not analyzed as a pronoun but as a conjunction].



Figure 1: L-derivation in *rīdan* ‘to ride’: *riḍḍa* ‘rider’ (input and output of transposition).

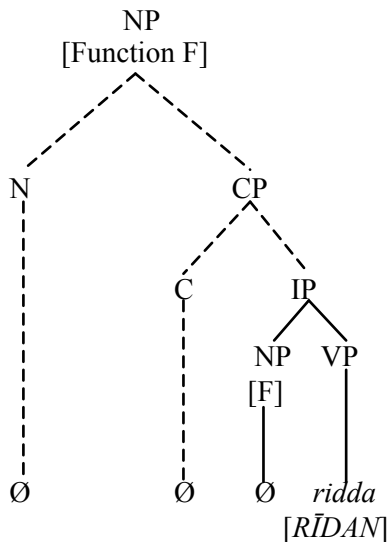


Figure 2: L-derivation in *rīdan* 'to ride': *ridda* 'rider' (functional derivation).

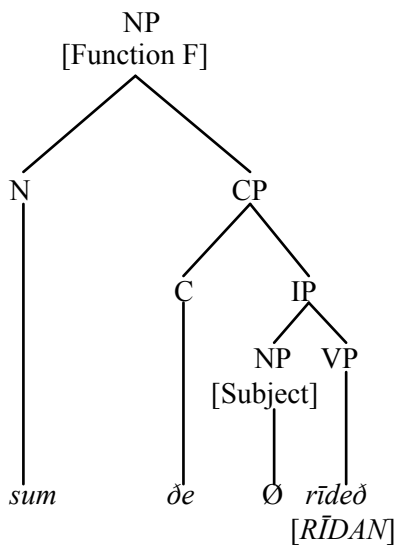


Figure 3: L-derivation in *rīdan* 'to ride': *ridda* 'rider' (feature switch).

These tree diagrams ultimately indicate that Old English has two ways of expressing the same meaning by using an identical lexeme: one is lexical (*ridda* 'rider'), the other is syntactic (*sum ðe rīdeð* 'one who rides'). The same functions are found in both expressions: there is a subjective function and an unexpressed objective function. As it is shown in the next section, however, the objective function can be overt.

#### 4. The grammaticalization *bora* > *-bora*

This section argues for the existence of the derivational suffix *-bora* as a result of the grammaticalization of the free form *bora* 'bearer'. The grammaticalization *bora* > *-bora*, in terms of the Lexeme-Morpheme base Morphology framework, is based on a feature switch as depicted by Figure 3 and leading to a functional derivation like the one in Figure 2 (both requiring a transposition as described by Figure 1). The feature switch displayed by Figure 4 represents the objective function required by the transitive *beran* 'bear', in contradistinction to the intransitive *rīdan* 'ride'.

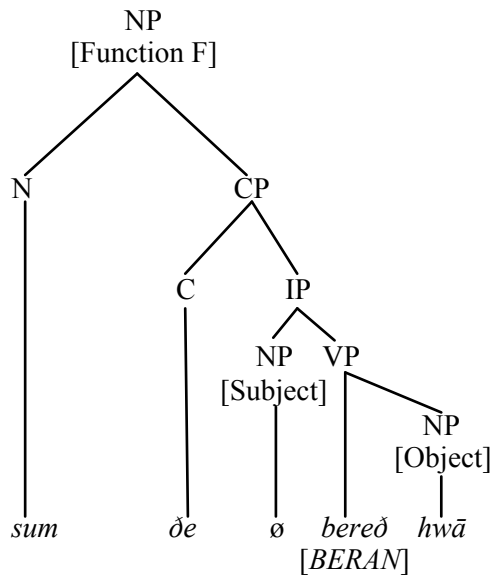


Figure 4: L-derivation in *beran* 'to bear': *bora* 'bearer' (feature switch).

This said, let us consider this evolution in the wider setting of the noun-deriving suffixes of Old English. The lexical database of Old English *Nerthus* turns out 480 nouns derived from verbal bases by means of *-bora* and the following affixes: *-a*, *-e*, *-en*, *-end*, *-ere*, *-estre*, *-icge*, *-o* and *-u*, which can be broken down as follows:

- (1) a. *-bora* (23)  
 b. *-a* (90), *-e* (11), *-en* (14), *-end* (192), *-ere/-re* (96), *-estre/-istre/-ystre* (12), *-icge* (2), *-o* (2), *-u* (33)

With the exception of complex nouns with *-bora*, the derivatives tabulated in (1) have a verbal base of derivation, which allows the researcher to determine whether a subjective or an objective relationship holds between base and derivative. This point is illustrated by (2), which displays instances with all the affixes in (1b) along with their verbal bases of derivation:

- (2) *(ge)spreca* 'spokesman' ~ *(ge)sprecan* 'to speak'  
*syde* 'a decoction' ~ *(ge)sēoðan* 'to boil'  
*byrgen* 'burying place' ~ *(ge)byrgan* 'to bury'  
*unrihthæmend* 'adulterer' ~ *unrihthæman* 'to commit adultery'  
*hālsere* 'soothsayer' ~ *hālsian* 'to adjure'  
*hoppestre* 'female dancer' ~ *hoppian* 'to dance'  
*ācennicge* 'mother' ~ *ācennan* 'to bring forth'  
*gehlytto* 'lot' ~ *gehlēotan* 'to cast lots'  
*sacu* 'reproof; affliction; persecution' ~ *sacan* 'to struggle'

The derivatives in (2) can be classified, on the grounds of the distinction drawn between fully derivational and non derivational affixation, into a group comprising instances like *byrgen* 'burying place', *unrihthæmend* 'adulterer', *hālsere* 'soothsayer', *hoppestre* 'female dancer' and *ācennicge* 'mother'; and another one consisting of *(ge)spreca* 'spokesman', *syde* 'a decoction', *gehlytto* 'lot' and *sacu* 'persecution'. In these groups, lexical switches produce pairs like those in (3). Notice that *m* stands for masculine, *f* for feminine and *n* for neuter:

(3)	a.	<i>ācennend</i>	m	‘parent’
		<i>ācennicge</i>	f	‘mother’
	b.	<i>āðswara</i>	m	‘oath-swearing, oath’
		<i>āðswaru</i>	f	‘oath-swearing, oath’
	c.	<i>byrðestre</i>	f	‘female carrier’
		<i>byrðre</i>	m	‘bearer, supporter’
	d.	<i>cennend</i>	m	‘parent’
		<i>cennestre</i>	f	‘mother’
	e.	<i>forspennend</i>	m	‘procurer’
		<i>forspennestre</i>	f	‘procuress’
	f.	<i>fylgend</i>	m	‘follower, observer’
		<i>fylgestre</i>	f	‘female follower’
	g.	<i>galdre</i>	m	‘wizard, magician’
		<i>galdricge</i>	f	‘enchantress’
	h.	<i>hālend</i>	m	‘Saviour, Christ’
		<i>hālestre</i>	f	‘saviour’
	i.	<i>hlēapere</i>	m	‘runner, courier; wanderer, leaper, dancer’
		<i>hlēapestre</i>	f	‘female dancer’
	j.	<i>leornere</i>	m	‘learner, disciple; scholar; reader’
		<i>leornestre</i>	f	‘a student’
	k.	<i>oferswīðend</i>	m	‘vanquisher’
		<i>oferswīðestre</i>	f	‘victrix’
	l.	<i>plegere</i>	m	‘player’
		<i>plegestre</i>	f	‘female athlete’

To focus on functionally motivated lexical derivations, example (4) analyses the available evidence as to pairs or triplets of derivatives that share a base of derivation in such a way that the attachment of an affix performs a different function:

(4)	a.	<i>andetla</i>	m	‘declaration, confession’	(objective)
		<i>andetta</i>	m	‘one who confesses’	(subjective)
		<i>andettere</i>	m	‘one who confesses’	(subjective)
	b.	<i>byrgen</i>	f	‘burying place’	(objective)
		<i>byrgend</i>	m	‘grave-digger’	(subjective)
	c.	<i>foreðingere</i>	m	‘intercessor, mediator’	(subjective)
		<i>foreðingiend</i>	m	‘intercessor’	(subjective)
		<i>foreðingræden</i>	f	‘intercession’	(objective)
	d.	<i>gehlyta</i>	m	‘companion’	(subjective)
		<i>gehlytta</i>	m	‘partner, fellow’	(subjective)
		<i>gehlytto</i>	?	‘fellowship, lot’	(objective)
	e.	<i>(ge)rēðra</i>	m	‘rower, sailor’	(subjective)
		<i>(ge)rēðru</i>	np	‘oars’	(objective)
	f.	<i>(ge)saca</i>	m	‘opponent, foe’	(subjective)
		<i>(ge)sacu</i>	f	‘conflict, strife, war’	(objective)
	g.	<i>giefa</i>	m	‘donor’	(subjective)
		<i>giefend</i>	m	‘giver’	(subjective)
		<i>giefu</i>	f	‘giving, gift’	(objective)
	h.	<i>gripa</i>	m	‘handful, sheaf’	(objective)
		<i>gripu</i>	f	‘kettle, caldron’	(subjective)
	i.	<i>mānswara</i>	m	‘perjurer’	(subjective)



	<i>mānswaru</i>	f	‘perjury’	(objective)
j.	<i>nȳdnima</i>	m	‘one who takes by force’	(subjective)
	<i>nȳdnimend</i>	f	‘rapine’	(objective)
	<i>nȳdnimu</i>	f	‘rapine, forcible seizure’	(objective)
k.	<i>sceaða</i>	m	‘injurious person’	(subjective)
	<i>sceaðu</i>	f	‘injury’	(objective)
l.	<i>selen</i>	f	‘grant, gift; tribute’	(objective)
	<i>sellend</i>	m	‘giver; betrayer’	(subjective)
m.	<i>slaga</i>	m	‘slayer, homicide’	(subjective)
	<i>slēa</i>	f	‘slay, weaver’s reed’	(objective)
n.	<i>unna</i>	m	‘favour, approval; grant’	(objective)
	<i>unnend</i>	m	‘one who grants’	(subjective)
o.	<i>wiðercwida</i>	m	‘contradictor’	(subjective)
	<i>wiðercwide</i>	m	‘contradiction’	(objective)

In order to pursue the question of functional derivations that add semantically interpretable functions such as the subjective or the objective, 480 suffixed nouns have been analysed, out of which 391 are subjective and 89 objective. Therefore, the subjective function is clearly favoured. The suffixes analysed can be divided into three groups on functional grounds: those suffixes that always perform the same function, those suffixes that practically always realize the same function and those suffixes for which no predominant function can be identified. These groups are given in (5):

- (5) a. *-bora* (21 subjective), *-estre/-istre/-ystre* (18 subjective), *-icge* (2 subjective), *-o* (2 objective)
- b. *-e* (8 subjective, 3 objective), *-en* (13 objective, 1 subjective), *-end* (190 subjective, 2 objective), *-ere/-re* (95 subjective, 1 objective), *-u* (29 objective, 4 subjective)
- c. *-a* (58 subjective, 32 objective)

As can be seen in (5), the suffix *-a* is selected for the subjective and the objective functions. The suffix *-e* is selected for the objective function mainly. The suffix *-en* is selected for the objective function mainly. The suffix *-end* is clearly subjective. The situation with the suffix *-ere/-re* is comparable. It is overwhelmingly subjective, although there is an instance of the objective function. The suffix *-estre/-istre/-ystre* is subjective only. The suffix *-icge* is exclusively subjective. The suffix *-o* is objective only. Finally, the suffix *-u* is clearly objective, although there are four instances that can be considered subjective. These results are in accordance with the Universal Grammatical Function Theory, which predicts that the functions of inflectional and lexical derivation are the same. Indeed, suffixes involved in explicit derivational relations such as *-estre* perform the same function, namely subjective, as other suffixes partaking in implicit derivational relations, such as *-a*. The same applies to the objective function. Suffixes taking part in explicit derivational relations such as *-en* perform the subjective function, as other suffixes involved in implicit derivational relations, like *-o*, do. Finally, the fact that most of the suffixes under scrutiny perform the subjective and the objective function is in keeping with the Separation Hypothesis, in terms of which grammatical morphemes are the output of phonological operations independent of the semantic operations that they realize. That is, affixation is a phonological operation of affix selection, whereas lexical derivation entails lexical categories and functional relations.

Regarding (5), it is remarkable that the suffix *-bora* is selected for the subjective function exclusively. This is the case because *bora* is a verbal element, morphologically

related to the verb *beran* ‘bear’. *Bora* as a free element means ‘bearer’, so that the agentive function is expressed by the inflectional suffix *-a*, which corresponds to the nominative singular masculine of the weak declension of nouns. In other words, the morphological relation holding between the strong verb and the deverbal noun is implicit. *Bora* turns out in the following complex words:

(6)	<i>cāgbora</i>	‘key-bearer, jailor’
	<i>candelbora</i>	‘acolyte’
	<i>cēacbora</i>	‘yoke for buckets’
	<i>feorhbora</i>	‘life-bearer’
	<i>hornbora</i>	‘horn-bearer, trumpeter’
	<i>lēohtbora</i>	‘light-bearer’
	<i>locbore</i>	‘one who has long hair, free woman’
	<i>mundbora</i>	‘protector, preserver, guardian, advocate; prefect’
	<i>rādbora</i>	‘adviser, counsellor; (Roman) consul’
	<i>rāsbora</i>	‘counsellor, leader, guide’
	<i>rōdbora</i>	‘cross-bearer’
	<i>segnbora</i>	‘standard-bearer’
	<i>sōðbora</i>	‘soothsayer, astrologer’
	<i>strālbora</i>	‘archer’
	<i>sweordbora</i>	‘sword-bearer, swordsman’
	<i>tācnbora</i>	‘standard-bearer; guide’
	<i>wāgbora</i>	‘wave-bearer’
	<i>wāpenbora</i>	‘weapon-bearer’
	<i>wīgbora</i>	‘fighter’
	<i>witumbora</i>	‘bridesman’
	<i>wōðbora</i>	‘orator, speaker, seer, prophet, poet, singer’
	<i>wrōhtbora</i>	‘accuser; the devil’
	<i>wudubora</i>	‘wood-carrier’

These derivatives strongly indicate that the grammaticalization of a free lexeme has taken place, but also that the process of grammaticalization is blurred by lexicalization. Even though *-bora* derivatives are relatively transparent, we also come across some instances of lexicalization such as *candelbora* ‘acolyte’ and *wrōhtbora* ‘the devil’. Beginning with grammaticalization, this term is used in the sense of change from grammatical status into lexical status (Hopper and Traugott 2003) with the desemanticization of lexical forms, which develop more abstract meanings (Givón 2009). The process of grammaticalization must have taken three steps. The first involves the transitive type represented by *wāpenbora* ‘weapon-bearer’, which has a clausal correlate of the transitive type (‘someone bears a weapon’) and, moreover, involves an agent. The second step in the grammaticalization of *bora* must have consisted of the stative (possessive) type illustrated by *locbore* ‘someone with long hair’, with a clausal correlate ‘someone has long hair’, thus requiring a possessor (experiencer) rather than an agent. Finally, the third step of this process of grammaticalization must have comprised the stative (locative) type exemplified by *cēacbora* ‘yoke for buckets’, which diverges from the transitive clausal correlate (‘the buckets are on the yoke’) in displaying a non-possessor experiencer and a location. That is, there has been a process of meaning weakening and generalization whereby a transitive clausal correlate has yielded way to an intransitive clausal correlate of the copulative type (transitive > possessive > locative /copulative). Overall, fully lexical meanings like ‘to bear’, ‘to hold’, ‘to bring’, ‘to carry’, etc. are replaced by the less specific grammatical meaning of possession. This loss of semantic

weakening must have favoured the presence of abstract goals like *mundbora* ‘protector’, which appear hand in hand with concrete goals like and *wudubora* ‘wood-carrier’.

Additional evidence in favour of the bound character of *bora* can be found in corpus analysis and in other sets of derivatives. From the perspective of corpus frequency, it turns out that *bora* as a free form is extremely infrequent. According to *The Dictionary of Old English*, there is a single occurrence of *bora* ‘bearer’ in the corpus. Considering derivational morphology as a whole, there are other suffixes morphologically related to the strong verb *beran* ‘bear’, along with *bora* itself. That is to say, the vocalic grade of the infinitive *beran* ‘bear’ corresponds to the one of the adjectival suffix *-berende*, the vocalic grade of the 3rd. person singular preterite indicative *bær* is identical with the one displayed by the adjectival suffix *-bære* and the vocalic grade of the past participle *boren* is also staged by the suffix with which this article deals. Thus, Old English has pairs like *feorhbora* ‘life-bearer’ and *feorhberende* ‘living’, *sweordberende* ‘sword-bearing’ and *sweordbora* ‘swordsmen’, *feðerbære* ‘having feathers, winged’ and *feðerberende* ‘feathered’; as well as the triplet *lēohtbære* ‘brilliant, luminous’, *lēohtberende* ‘light-bearing, luminous’ and *lēohtbora* ‘light-bearer’. According to Kastovsky (1992: 50) *-berende* and *-bære* have dialectal distribution, in such a way that the former represents the Anglian form and the latter the West Saxon one. No such distribution has been proposed for *bora*. Nevertheless, the existence of these two suffixes reinforces the bound status of *bora*. It must not be forgotten, in this respect, that other genetically and areally related languages like modern German make use of a derivational morpheme that represents a reflex of *bora*.

## 5. Conclusions

This article has drawn a distinction between explicit and implicit morphological relatedness and applied it to Old English suffixed nouns. It has also classified deverbal nouns on the grounds of the functions identifiable with respect to a clausal correlate. It has been found that *bora* bears both explicit and implicit morphological relatedness and that it is selected for the subjective function exclusively. Evidence has been gathered in favour of the bound character of *bora*, including textual frequency and comparison with other suffixes. The grammaticalization of *bora* has been explained by means of the theoretical proposals of Lexeme-Morpheme Base Morphology, which distinguishes inflection from derivation but unifies derivations that assign the same function. Such a process of grammaticalization can be divided into three steps. The first involves the transitive type with a clausal correlate of the transitive type and an agent. The second step consists of the stative (possessive) type that requires a possessor. The third step the stative (locative) type that diverges from the transitive clausal correlate because it stages a non-possessor experiencer and a location.

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