

THE INFLECTION-DERIVATION CONTINUUM AND THE OLD
ENGLISH SUFFIXES -A, -E, -O, -U

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This article addresses the question of the continuity between inflection and derivation as posed by the Old English suffixes *-a*, *-e*, *-o* and *-u*. On the structural side, the morphological analysis that has been carried out focuses on the overlapping of inflectional and derivational phenomena. On the functional side, affixation is analysed in the constituent projection and inflection in the operator projection of the Layered Structure of the Word (LSW), where the derivational affix constitutes a morphological pivot and the inflectional affix a morphological controller. The conclusion is reached that, whereas the LSW allows for a unified treatment of derivation and inflection in the synchronic axis, it requires further attention in the area of inflection as a Word/Complex Word operator. In this line, this article demonstrates that the insertion of gender, number and case operators in the top layer stresses the morphological character of the LSW, while it is more consistent with the grammatical nature of gender in Old English.

Keywords: functionalism; lexicology; Old English; affixation; derivation; inflection

EL CONTINUO FLEXIÓN-DERIVACIÓN Y LOS SUFIJOS
DEL INGLÉS ANTIGUO -A, -E, -O, -U

Este artículo trata de la continuidad entre flexión y derivación tal y como se presenta en los sufijos del inglés antiguo -a, -e, -o y -u. Desde el punto de vista estructural, el análisis morfológico llevado a cabo se centra en el solapamiento de los fenómenos flexivos y derivativos. Desde una perspectiva funcional, la afijación se analiza en la proyección de los constituyentes y la flexión en la proyección de los operadores de la estructura jerarquizada de la palabra (EJP), donde el afijo derivativo constituye un pivote morfológico y el afijo flexivo un controlador morfológico. La conclusión es que, aunque la estructura jerarquizada de la palabra permite un tratamiento unificado de la derivación y de la flexión en el eje sincrónico, ésta requiere una especial atención en el área de la flexión como operador de palabra/palabra compleja. En esta línea, este artículo demuestra que la inserción de operadores de género, número y caso en la capa superior enfatiza el carácter morfológico de la EJP y es más coherente con la naturaleza gramatical del género en inglés antiguo.

Palabras clave: funcionalismo; lexicología; inglés antiguo; afijación; derivación; flexión

1. The limits of inflection and derivation in Old English

This study focuses on the limits between the morphological phenomena of inflection and derivation or, more specifically, on the ways in which these processes overlap in Old English nouns which contain the suffixal morphemes *-a*, *-e*, *-o* and *-u*.¹ To isolate the object of study and describe it clearly, it is necessary, in the first place, to identify the area of derivation that is in contact with inflection in Old English and, secondly, to define the derivational phenomena under scrutiny in a principled way. In this line, the periphery of derivational morphology is undoubtedly zero-derivation, given that this morphological process involves derivation without explicit derivational morphemes. At the same time, zero-derivation constitutes the borderline of derivation with inflection because the zero-morpheme is not incompatible with the presence of an inflectional morpheme. For these reasons, zero-derivation has been a controversial question in the area of word-formation, as Beard and Volpe (2005: 190) remark. There are probably two reasons for this controversy: the existence of functions carried out by no explicit form (as, for instance, in *cook* noun from *cook* verb) and the apparent overlapping of zero-derivation and conversion in Present-Day English (as in the previous example, as well as in *book* noun vs. *book* verb, etc.). Bauer provides the following definition for conversion: “conversion is the presumed derivational process which takes place when a word which normally occurs in one word-class takes on the characteristics of a different word-class without any change of form” (2004: 36). Regarding zero-derivation, Bauer (2004: 115) refers the reader to conversion and illustrates the phenomenon of zero-morph or zero-morpheme by means of the genitive plural of a feminine noun in Russian, which, unlike any other form in the paradigm, has the form of a bare stem. Bauer goes on to say:

Zero morphs ... are always controversial, and a proliferation of zeroes is usually a sign of a poor analysis. In any case, a distinction should be drawn between a zero morph and the lack of any morph because a particular category or property is **unmarked** [emphasis in the original]. (2004: 115)

Since Bauer (2004) does not propose an overall solution for this problem I draw on Martín Arista (forthcoming d, e), who holds that zero derivation takes place when the derivative belongs in an inflectional paradigm. If this is not the case and the derivative is a member of an invariable class such as the adposition and the conjunction, the morphological process in point is conversion. As illustration, consider the following instances of conversion into adverb, adposition and conjunction in Old English, respectively:² *a:bu:tan* (adverb) > *a:bu:tan* (adposition) ‘on, about’, *e:ast* (adjective) >

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² The evidence provided by this article has been gathered from the lexical database of Old English *Nerthus* (www.nerthusproject.com). For the theoretical and methodological aspects relevant for this lexical database, I refer the reader to Caballero González *et al.* (2004-2005), Torre Alonso *et al.* (2008) and Martín Arista (forthcoming a, b).

e:ast (adverb) ‘eastwards’ and *forðæ:m* (adverb) > *forðæ:m* (conjunction) ‘therefore’.³ When the derivative belongs in an inflectional paradigm, a further distinction must be established between the absence of any morpheme and the absence of any derivational morpheme while an inflectional morpheme is present. For example, *fær*, which is a bare stem, represents an instance of zero-derivation proper whereas *bryce*, with a final *-e* morpheme, is a case of overlapping of inflection and derivation, given that the morpheme performs an inflective and a derivational function simultaneously. Neither *fær* nor *bryce* contain any purely derivational morpheme: *fær* ‘calamity, sudden danger’ < *faran* ‘set forth; happen, exist, act’ and *bryce* ‘breach’ < *brecan* ‘break’. Leaving aside zero-derivatives proper such as *fær* and given nouns like *de:ma* ‘judge, ruler’ < *de:man* ‘judge’ wk.1, *wita* ‘sage, philosopher’ < *witan* ‘know, understand’ str. 1 and *stapa* ‘grasshopper’ < *steppan* ‘step’ str. 6, Pilch (1970) considers them derivational whereas Kastovsky (1968) regards the words displaying the same affixes as the product of inflection. Kastovsky (1968) gives two arguments for considering inflective a morpheme such as *-a* in *de:ma* ‘judge’. Firstly, nouns like *sarga* ‘trumpet, clarion’, *nama* ‘name’ or *forca* ‘fork’ show the inflective ending *-a* and they are clearly non-derived nouns; secondly, Kastovsky (1968) notices that, whereas derivative suffixes appear throughout the inflectional paradigm (like the suffix *-ere* in *bæcere* ‘baker’: nominative, accusative singular *bæcere*, nominative, accusative plural *bæceras*), the suffix *-a* does not. As I see it, however, *-a* clearly affects the meaning of the base as in *ridda* ‘rider’ from *ri:dan* ‘ride’ or *drinca* ‘cup bearer’ from *drinca* ‘drink’, and the analysis of the words ending in *-a* allows one to consider it a generalised and recurrent phenomenon. I discuss the question in more detail in the remainder of this section.

The ending *-a* has been treated as an inflective suffix marking the nominative singular of masculine nouns. However, along with words in which this ending is exclusively inflectional, such as those in (1a), there are others in which, along with the inflectional function, *-a* establishes a morphological relation with another word, the base of derivation. This can be seen in (1b):

- (1)
- a. *adela* ‘mud’
tosca ‘frog’
asce ‘ash’
 - b. *andetta* ‘one who confesses’ < *andettan* ‘confess’
fulwa ‘fuller’ < *fulwian* ‘baptize’
byrele ‘cup-bearer’ < *byrelian* ‘give to drink’

There are 298 nouns ending in *-a* in Old English. Of these, 170 are of the type represented by (1a), that is, nouns in which *-a* is an inflectional morpheme; the other 128 are of the type represented by (1b), that is, they contain the inflectional as well as derivational morpheme *-a*. For each of these, there is at least one morphologically

³ Long vowels are represented with a colon. The following abbreviations have been used throughout this article: Adj (Adjective), ARG (Argument), f. (feminine), LSW (Layered Structure of the Word), m. (masculine), masc. (masculine), mf. (masculine and feminine), N (Noun), n. (neuter), nom. (nominative), NUC (Nucleus), sing. (singular), str. (strong), V (Verb), wk. (weak).

related word. If these words are not analysed as derivatives, the fact is neglected that they are morphologically related to other more basic words, as is the case with the nouns in (1b), which hold a morphological relation with the verbs given. The analysis on inflectional grounds is based on the form of the paradigm of the Old English weak noun given in figure 1. Historically, the ending *-a* is a remnant of the old form *-ena* (Hogg 1992). In classical Old English, it corresponds to the nominative singular masculine of the weak declension of the noun:

	Singular	Plural
Nominative	<i>guma</i>	<i>guman</i>
Accusative	<i>guman</i>	<i>guman</i>
Genitive	<i>guman</i>	<i>gumena</i>
Dative	<i>guman</i>	<i>gumum</i>

Figure 1. Masculine paradigm of *n*-stems (based on Campbell 1987)

Taking the opposite line, Martín Arista (2006b) has given three reasons why *-a* is a derivational suffix in Old English. Firstly, although *-a* can simply express gender contrast, as in (2a), it often expresses meaning contrast, such as between agent and patient, as in (2b):

- (2)
- a. *myrðra* (m) 'homicide, murderer' ~ *myrðre* (f) 'homicide, murderer'
ti:ða (m) 'sharer in, receiver' ~ *ti:ðe* (f) 'sharer in, receiver'
 - b. *cuma* (mf) 'stranger' ~ *cyme* (m) 'coming'
ierfa (m) 'heir' ~ *ierfe* (n) 'heritage'
gilda (m) 'member of a brotherhood' ~ *gilde* (n) 'membership of guild'
secga (m) 'sayer, informant' ~ *secge* (f) 'speech'
steora (m) 'steersman' ~ *steore* (f) 'direction'

Secondly, *a-* causes meaning change between verbs and nouns like those in (3):

- (3)
- runan* 'whisper, murmur' ~ *runa* 'counsellor, confidant'
fulwian 'baptize' ~ *fulwa* 'fuller'
dægian 'dawn' ~ *dæge* '(female) bread maker'
hyrdan 'make hard' ~ *hierde* 'keeper'

And, thirdly, the presence of final *-a* brings about meaning contrasts with nouns containing agentive suffixes, as is shown by (4):

- (4)
- drinca* 'cup-bearer' ~ *drincere* 'drinker, drunkard'
witega 'wise man, lawyer, prophet, soothsayer' ~ *witegestre* 'prophetess'
winna 'enemy, adversary' ~ *winnend* 'fighter'
steora 'steersman, pilot' ~ *steorend* 'corrector, director' ~ *steorere* 'steersman'

The same analysis is applicable to *-e*, *-o* and *-u*:

- (5)
hierdan ‘protect’ > *hierde* ‘keeper’
fullian ‘fill up’ > *fyllo* ‘fillness’
giefan ‘give’ > *giefu* ‘gift’

To these arguments, one more can be added regarding the contrast between the presence and the absence of the morphemes under scrutiny. Beginning with *ø/-a*, 95 instances have been found in which the presence of the suffix triggers meaning change, as in (6a). The case with *ø/-e* and *ø/-u* is similar: there are 25 instances of the former and 4 of the latter. Examples (6b) and (6c), respectively, illustrate the phenomena in question:

- (6)
 a. *andsæc* ‘denial, refusal’/*andsaca* ‘adversary’, *forebod* ‘prophecy, preaching’/*foreboda* ‘messenger, crier’, *selfdo:m* ‘independence’/*selfde:ma* ‘monk living subject only to his own rules’, *wordloc* ‘art of logic’/*wordloca* ‘speech’, *mu:ð* ‘mouth’/*mu:ða* ‘mouth of a river, estuary’, *lid* ‘ship’/*lida* ‘sailor’
 b. *æ:1* ‘law, ceremony’/*æ:we1* ‘married woman’; *blæc2* ‘ink’/*blæcce* ‘black matter’; *cyning* ‘king’/*cyninge* ‘queen’; *nett* ‘net’/*nette* ‘the net-like caul’; *smið* ‘smith’/*smiððe* ‘smithy, forge’
 c. *framfær* ‘departure’/*framfru* ‘excess’; *getog* ‘tuggin, contraction’/*getogu* ‘traces (of a horse)’; *goldsmið* ‘goldsmith’/*goldsmiðu* ‘goldsmith’s art’; *weg* ‘way’/*wegu* ‘vehicle’; *wæ:gfar* ‘sea-voyage’/*wæ:gfaru* ‘track in the sea’

The evidence is not definitive, however. In the first place, no instance of a semantic contrast *ø/-o* has been found. Rather, the analysis encounters pairs like *misbyrd/misbyrdo* ‘abortion’ and *wælfyll/wælfyllo* ‘fill of slaughter’. And, more importantly, along with the instances of meaning contrast, other pairs show up that do not display any meaning contrast in spite of the attachment of one affix of the series *-a*, *-e*, *-u*, such as *sce:at/sce:ata* ‘corner, angle’, *gle:d/gle:de* ‘glowing coal’ and *trod/trodu* ‘track, trace’. At this point, two remarks are in order so as to assess the data here presented accurately. The first is that, although evidence supporting the contrastive nature of the morphemes under analysis have been furnished for *-a*, *-e* and *-u*, no instances of morphological contrast have been found of the type *ø/-o* (which might be the result of the low type frequency of *-o* with respect to *-a*, *-e*, and *-u*). The second remark concerns two well-attested changes that Old English is undergoing while the morphemes in question are still operational: the replacement of grammatical gender with a gender system in which considerations of animacy and sex play a more central role (Curzan 2003); and the decline of inflections (Allen 2005), which has a derivational counterpart consisting in a certain degree of interchangeability of the affixes (Horgan 1980; Hiltunen 1983).⁴ It has to be borne in mind, however, that such

⁴ See Martín Arista and Martín de la Rosa (2006) on the typological characteristics of Old English.

interchangeability is displayed more frequently by the Germanic prefixes no longer productive in English, such as *a-* and *be-*, than by the suffixes, many of which are still productive.⁵ In this context, the morphemes discussed in this article disappeared along with the full inflection of nouns. This does not mean, however, that they did not express morphological contrast when they were in use. These morphemes established morphological relatedness between a more basic and a less basic lexical item. The evidence provided demonstrates that the morphological relation holding between the more basic and the less basic lexical item was not only inflectional, but also derivational. Indeed, a significant number of cases display the sort of meaning change between the more basic and the less basic item associated with derivational morphology. It remains true, on the other hand, that, whereas the derivational relationship is often present, the inflectional relationship is a constant. For these reasons, in the following sections I take the line that the endings *-a*, *-e*, *-o* and *-u* constitute inflectional means that serve the additional function of expressing derivation. Consequently, they turn out derivation by inflectional means and represent continuity between inflection and derivation in the Old English noun.

2. Derivation by inflectional means in Old English

To speak of continuity between inflection and derivation is tantamount to accepting the existence of derivation by inflectional means in the synchronic dimension, and inflection by derivational means on the diachronic axis, which, ultimately belongs in the Sapirean tradition, which holds that all grammars leak. Instead of an analysis based on discrete categories, such as those I have surveyed in the previous section, I opt for one that benefits from this concept of continuity, as in the functional and cognitive schools of linguistics, according to which there is continuity rather than discrete opposition between linguistic categories. In this respect, it is necessary to point out that until quite recently the continuity between the morphological phenomena of inflection and derivation has not been accepted. On the contrary, it is a central notion of structuralism – as represented, for instance, by Kastovsky (1968) and Marchand (1969) – that there is a strict separation between inflection and derivation.⁶ This means that if a morpheme is inflectional, it cannot be derivational at the same time, and *vice versa*. Taking the opposite view, and despite the criteria for distinguishing inflection and derivation proposed by authors such as Stump (1998; Stump 2005), other authors, such as Bybee (1985), Shopen (1985) and Dressler (1989), among others, claim that there is continuity between inflection and derivation and, in a more radical stance, Beard (1995) and Beard and Volpe (2005) have put forward 44 universal grammatical functions that can be used for both for grammatical derivations (inflection) and lexical derivations (derivation). To put it in Shopen's words:

⁵ See de la Cruz (1975) on the Old English pure prefixes. See also Martín Arista (2006a) on the prefixes *a-* and *ge-*.

⁶ Kastovsky (1992) admits the continuity between affixation and compounding by distinguishing the class of affixoids. See also Kastovsky (2005) on the Marchandean school.

It is now quite traditional to distinguish in grammatical description between *inflectional* and *derivational* [emphasis as in the original, EGT] morphology... Though this distinction is quite an intuitive one, it is difficult to provide it with a firm definitional foundation. Derivation cannot be separated from inflection in terms of their formal realization, since none of the grammatical processes of prefixation, vowel change, etc. which appear in grammar are confined to one or the other domain. Similarly, the distinction cannot be made directly in terms of the grammatical categories involved, for a category which is inflectional in one language ... may be derivational in another (1985: 162).

Recent studies on the continuity between inflection and derivation include, for example, Manova (2005), who discusses the traditional criteria for distinguishing inflection and derivation and draws the conclusion that in some languages some categories allow for two types of forms, derivational and inflectional, which reaffirms the notion of continuity between these morphological phenomena. Turning to Old English, the nominal *-a*, *-e*, *-o* and *-u* represent continuity between inflection and derivation in that they constitute inflectional means with the additional function of expressing derivation. In the remainder of this article a morphological description and an explanation for these morphemes is offered. Given that the inflectional component is always present, I focus on their derivational function.

3. Morphological description

To begin this section, I re-open the question of morphological relatedness by discussing whether affix contrast implies meaning change or not. Throughout the discussion that follows it must be borne in mind that it would be out of place to speak of continuity if all the instances of the phenomenon under scrutiny fell into either inflection or derivation. On the other hand, a rigorous morphological description cannot leave aside the relevant morphological process. In order to determine whether the terminal morphological process is inflective or derivational, each affix of the series *-a*, *-e*, *-o*, *-u* is compared with the other affixes that are attached to the same base, as well as to the absence of affix. Beginning with the contrast *-a/-e*, along with pairs such as *a:cumba/a:cumbe* 'oakum', in which the ending expresses gender inflection, instances of derivational contrast turn up such as *æ:metta* 'leisure'/*æ:mette* 'ant', *bita* 'bit'/*bite* 'bite', *fe:ða* 'foot-man'/*fe:ðe* 'power of locomotion', *feorhgo:ma* 'jaw'/*feorhgo:me* 'means of subsistence', *firenhicga* 'adulterer'/*firenhicge* 'adulteress', *fyrðwi:sa* 'chieftain'/*fyrðwi:se* 'military style', *gedrinca* 'cup-bearer'/*gedrinca* 'drink', *gefædera* 'male sponsor'/*gefædere* 'female sponsor', *gema:na* 'community'/*gemæ:ne* 2 'fellowship', *geongra* 'disciple'/*geongre* 'female attendant', *gripa* 'handful'/*gripe* 'grip', *hla:fordswica* 'traitor'/*hla:fordswice* 'high treason', *hu:sbonða* 'householder'/*hu:sbonde* 'mistress of a house', *ierfa* 'heir'/*ierfe* 'heritage', *landri:ca* 'landed proprietor'/*landri:ce* 'territory', *ma:ga* 'son'/*ma:ge* 'female relative', *ri:ca* 'influential man'/*ri:ce* 2 'rule', *secga* 'sayer'/*secge* 'speech', *selfæ:ta* 'cannibal'/*selfæ:te* 'a plant', *spura* 'spur'/*spure* 'heel', *sticca* 'stick'/*sticce* 1 'sticky matter', *tæppa* 'tap'/*tæppe* 'strip of stuff or cloth', *wiðercwida* 'contradictor'/*wiðercwide* 'contradiction', *wicca* 1 'wizard'/*wicce* 'witch', *wlita* 'countenance'/*wlite* 'brightness', *woruldrī:ca* 'great man'/*woruldrī:ce* 1 'earthly kingdom', *wuduwa* 'widower'/*wuduwe* 'widow' and *wurma* 'purple-fish'/*wurme* 'a plant used for

dyeing'. The same is applicable to the morphological contrast *-a/-u*, which is of gender only in pairs such as *bancoða/bancoðu* 'baneful disease' but fully derivative in *ælmegifa* 'giver of alms'/*ælmegifu* 'alms', *be:aggifa* 'ring-giver'/*be:aggifu* 'ring-giving', *e:adgiefa* 'giver of prosperity'/*e:adgiefu* 'gift of prosperity', *feorhgiefafa* 'giver of life'/*feorhgiefu* 'gift of life', *fre:otgifa* 'liberator'/*fre:otgifu* 'emancipator', *(ge)re:ðra* 'rower'/*(ge)re:ðru* 'oars', *(ge)saca* 'opponent'/*(ge)sacu* 'conflict', *giefa* 'donor'/*giefu* 'gift', *lata* 'slow person'/*latu* 'delay', *ma:ððumgyfa* 'giver of treasure'/*ma:ððumgifu* 'gift of treasure', *ma:nswara* 'perjurer'/*ma:nswaru* 'perjury', *ny:dnima* 'one who takes by force'/*ny:dnimu* 'rapine', *sceaða* 'injurious person'/*sceaðu* 'injury', *sicngiefafa* 'giver of treasure'/*sicngiefu* 'gift of treasure' and *u:tlaga* 'outlaw'/*u:tlagu* 'outlawry'. The contrast *-a/-o*, on the other hand, is mainly inflectional: *maga* 1/*mago* 'son', *scipteara/sciptearo* 'ship-tar' and *wuldormaga/wuldormago* 'heir of heaven' present inflectional contrast, whereas *gehlytta* 'partner'/*gehlytto* 'fellowship' only shows derivational contrast. The contrast *-e/-o* is rare. As a matter of fact, it is restricted to two pairs, one related by inflection (*bibliðe:ce/bibliðeoco* 'library') and the other by derivation (*blæ:ce* 'leprosy'/*blæ:co* 'pallor'). The contrast *-e/-u*, although infrequent, is inflectional only, holding in the following pairs: *ðe:ostre* 1/*ðe:ostru* 'darkness', *getimbre/getimbru* 'building', *hæ:te/hæ:tu* 'heat', *heofonware/heofonwaru* 'inhabitants of heaven', *nihtwacu/nihtwæcce* 'night-watch', *ungeti:me/ungeti:mu* 'evil time', *ðrece/ðracu* 'force'.

Once the question of morphological relatedness has been set, I describe each suffix morphologically by considering the properties of bases and the properties of affixes (Giegerich 1999; Hay 2002, 2003; Hay and Plag 2004) as well as morphological recursivity.

Derivation by means of the suffix *-a* is gradual, except in *gefædera* 'male sponsor' (*fæder* 'father') and *(ge)truma* 'legion' (*trum* 'firm'), which constitute instances of parasynthesis. *-A* derivatives have mainly verbal bases, but they can also have nominal or adjectival bases, which is illustrated, respectively by (7a), (7b) and (7c):

- (7)
- a. *geedcucoda* 'man restored to life' ([*ge*]edcwician 'revive'), *u:ðwita* 'scholar' (*u:ðwitian* 'study philosophy')
 - b. *gefædera* 'male sponsor' (*fæder* 'father'), *beswica* 'deceiver' (*beswic* 'deceit')
 - c. *a:dliga* 'sick person' (*a:dlig* 'sick'), *cræftiga* 'craftsman' (*cræftig* 'skilful')

More than one base is available for derivation in a significant number of instances (49 out of a total figure of 124 different bases). The combinations of more than one available base of derivation include N/V, Adj/N, Adj/V, N/V/V, N/N/V, Adj/N/V, Adj/N/V/V and Adj/N/N/V/V. Instances in point are the following:

- (8)
- a. *geðeahta* 'adviser' < *geðeaht* 'counsel' (N)/(*ge*)ðeahtian 'ponder' (V)
 - b. *hre:ofla* 'leprosy' < *hre:ofl 2* 'leprous' (Adj)/*hre:ofl 1* 'leprosy' (N)
 - c. *cu:ða* 'relative' < (*ge*)*cu:ð* 'known' (Adj)/ (*ge*)*cu:ðian* 'become known' (V)
 - d. *boda* 'messenger' < (*ge*)*bod* 'message' (N)/(*ge*)*bodian* 'tell' (V)/(*ge*)*be:odan* 'command' (V)
 - e. *gedrinca* 'cup-bearer' < (*ge*)*drinc* 'drink' (N)/*gedrinca* 'drink' (N)/ (*ge*)*drincan* 'drink' (V)

- f. *onwealda* ‘ruler’ < *onweald* 2 ‘mighty’ (Adj)/*onweald* 1 ‘authority’ (N)/*geonwealdian* ‘have power over’ (V)
 g. *ðearfa* 1 ‘poor man’ < *ðearf* 2 ‘needful’ (Adj)/*ðearf* 1 ‘need’ (N)/*geðearfian* ‘impose necessity’ (V)/*geðearfan* ‘be in want’ (V)
 h. *swica* ‘deceiver’ < *swice* 2 ‘deceitful’ (Adj)/*swice* 1 ‘offence’ (N)/*swic* ‘deceit’ (N)/*swician* ‘deceive’ (V)/ *(ge)swi:can* ‘deceive’ (V)

The bases of *-a* derivatives do not undergo mutation, with the exception of *(ge)camp* 1 ‘combat’ (*cempa* ‘warrior’), *(ge)sce:otan* ‘shoot’ (*scytta* ‘shooter’) and *su:l* ‘plough’ (*sy:la* ‘ploughman’). There are nine inflected bases only, the inflectional categories involved being the preterit singular, the past participle and the superlative: *(ge)beran* ‘bear’ ~ *boren* (*bora* ‘ruler’), *eald* ‘old’ ~ *ieldest* (*ieldesta* ‘chief’), *edcwician* ‘revive’ ~ *edcucode* (*edcucoda* ‘man restored to life’), *ne:ah* 1 ‘near’ ~ *ni:ehst* (*ni:ehsta* ‘closest friend’), *sce:otan* ‘shoot’ ~ *scuton* (*scytta* ‘shooter’), *(ge)sellan* ‘sell’ ~ *salde* (*sala* ‘sale’), *slē:an* ‘strike’ ~ *slagen* (*slaga* ‘slayer’) and *wi:gan* ‘fight’ ~ *wigen* (*wiga* ‘fighter’). Regarding the derivational status of bases, *-a* derivatives come from basic words as a general rule, although 21 instances have been found of affixal bases and 10 of compound bases, given, respectively in (9a) and (9b):

- (9)
 a. *a:dlig* ‘sick’, *a:gi:tan* ‘waste’, *andsacian* ‘dispute’, *belæ:wan* ‘betray’, *cræftig* ‘skilful’, *forræ:dan* ‘plot against’, *forwyrht* ‘misdeed’, *(ge)andettan* ‘confess’, *(ge)edcwician* ‘revive’, *(ge)fulwian* ‘baptize’, *(ge)ha:lġian* ‘hallow’, *(ge)wi:teġian* ‘prophesy’, *ġifol* ‘liberal’, *inwit* 2 ‘wicked’, *myrðrian* ‘murder’, *oferhogian* ‘despise’, *ræ:swan* ‘think’, *uncu:ð* ‘unknown’, *unhold* ‘disloyal’, *u:ðwitian* ‘study philosophy’, *wiðersacian* ‘renounce’
 b. *a:g* ‘trouble’ (*a:glæ:c* ‘trouble’), *a:n* 1 ‘alone’ (*a:nsetl* ‘hermitage’, *a:nwald* ‘monarchy’), *full* 1 ‘full’ (*fultum* ‘help’), *(ge)ha:l* ‘whole’ (*ha:lwende* ‘healthy’), *hand* 1 ‘hand’ (*handdæ:d* ‘handiwork’), *le:as* 2 ‘lie’ (*le:asbre:d* 2 ‘cheating’), *ni:ed* 1 (*ny:dniman*), *wæl* 1 ‘slaughter’ (*wælsliht* ‘slaughter’), *yfel* 1 ‘bad’ (*yfeldæ:d* ‘evil-doing’)

-A derivatives feed derivational processes of affixation and, above all, compounding. Thus, these suffixal forms enter further affixal derivations to turn out/produce? the recursive derivatives *a:ga* ‘proprietor’ (*una:ga* ‘one who owns something’), *cempa* ‘warrior’ (*incempa* ‘soldier of the same company’), *ste:ora* ‘steersman’ (*foreste:ora* ‘look-out man’), *(ge)wita* ‘sage’ (*unwita* ‘witless person’). For the derivatives that constitute input to compounding, see the Appendix.

The derivation by means of the suffix *-e* is gradual, except in *gedyre* ‘door-post’ (*dor* ‘door’), *gefilde* ‘field’ (*feld* ‘plain’), *gefylce* ‘band of men’ (*folc* ‘folk’), *gegilde* ‘membership of a guild’ (*ġield* ‘service’), *geme:de* 1 ‘consent’ (*me:d* 1 ‘reward’), *gemy:ðe* ‘confluence’ (*mu:ð* ‘mouth’), *gety:ne* ‘entrance’ (*tu:n* ‘enclosure’), *geðe:ode* ‘speech’ (*ðe:od* 1 ‘people’), *geðinge* ‘meeting’ (*ðing* ‘thing’), *gewe:de* ‘fury’ (*wo:d* ‘raging’), *gewidere* ‘weather’ (*weder* 1 ‘weather’), *gewyrce* ‘work’ (*weorc* ‘work’) and *gewyrde* 1 ‘speech’ (*word* 1 ‘word’). No instances of multiple bases have been found. *-E* derivatives are mainly deverbals, but they can also have nominal or adjectival bases, as can be seen, respectively in (10a), (10b) and (10c):

- (10)
- a. *ece* ‘pain’ (*acan* ‘ache’), *bite* ‘bite’ (*[ge]bi:tan* ‘bite’)
 - b. *fiðere* ‘wing’ (*feðeri* ‘feather’), *liðere* ‘sling’ (*leðer* ‘leather’)
 - c. *hæ:te* ‘heat’ (*ha:t* 1 ‘hot’), *ðe:ostre* 1 ‘darkness’ (*ðe:ostor* ‘dark’)

The bases of *-e* derivatives undergo mutation in 63 out of 151 cases, as in *dræge* ‘drag-nett’ (*[ge]dragan* ‘drag’) and *gety:ne* ‘entrance’ (*tu:n* ‘enclosure’). One half of the derivatives (75 out of 151) show inflected bases, the inflectional categories involved being the imperative (*seohhe* ‘sieve’ < *se:on* 1 ‘strain’), preterite singular (*bearce* ‘barking’ < *beorcan* ‘bark’), preterite plural (*byge* ‘curve’ < (*ge*)*bu:gan* 1 ‘bow’), the past participle (*cwide* ‘speech’ < (*ge*)*cweðan* ‘say’) and the superlative (*ielde* men ‘old’ < *eald* ‘old’). As for the derivational status of bases, *-e* derivatives usually have derived bases, that is, affixal bases since no compound bases have appeared. Exceptions to this general tendency include the following underived bases (the token number follows between brackets if it is higher than 1):

- (11)
- acan* ‘ache’, *æ:men* ‘desolate’, *a:gan* ‘own’, *bannan* ‘summon’, *beorcan* ‘bark’, *biernan* (2) ‘burn’, *blæc* 1 ‘black’, *bli:can* ‘glitter’, *bru:can* ‘break’, *calan* ‘grow cool’, *eald* ‘old’, *feðer* 1 ‘feather’, *flo:wan* ‘flow’, *fricgan* ‘ask’, *gangan* (2) ‘go’, *grafan* ‘dig’, *gre:osan* ‘frighten’, *habban* (2) ‘have’, *hæ:r* ‘hair’, *ha:t* 1 ‘hot’, *ho:f* ‘hoof’, *le:osan* ‘lose’, *lesan* ‘collect’, *leðer* ‘leather’, *lufu* ‘love’, *sci:tan* ‘shoot’, *scu:fan* ‘shove’, *screpan* ‘scrape’, *scri:ðan* ‘go’ (2), *se:on* 1 ‘strain’ (2), *si:can* ‘sigh’, *sle:an* ‘strike’, *sli:dan* ‘slide’, *smi:tan* ‘daub’, *smið* ‘handicraftsman’, *spi:wan* ‘spit’, *stri:dan* ‘stride’ (2), *swingan* ‘swing’, (*ge*)*te:on* 1 ‘pull’, *ðe:ostor* ‘dark’, *ðe:otan* ‘roar’, *ðorn* ‘thorn’

-E derivatives feed derivational processes of both affixation and compounding. In quantitative terms, these suffixal forms enter further affixal derivations (129 instances) as well as compounding processes (278 instances). See the Appendix for details.

Derivation by means of the suffix *-o* is gradual, since no instances of parasynthesis have been identified. *-O* derivatives have mainly adjectival bases, such as *bieldo* ‘boldness’ (*beald* ‘bold’), *ieldo* ‘age’ (*eald* ‘old’), *gehlytto* ‘fellowship’ (*gehlot* ‘selection by lot’) being the only denominal instance and *mago* ‘son’ (*magan* ‘be able’) the only deverbal one. *Gehlot* ‘selection by lot’ (*gehlytto* ‘fellowship’), *gesund* ‘safe’ (*[ge]synto* ‘health’), *geðungen* 1 ‘thriven’ (*[ge]ðyngo* ‘progress’), *unbeald* ‘timid’ (*unbieldo* ‘timidity’) are the derivatives which present mutated bases. *Gre:at* ‘great’ ~ *gry:ttra* (*gry:to* ‘gratness’) constitutes the only instance in which the base is inflected, the category involved being the superlative. Considering the derivational status of bases, the figure of underived bases is similar to that of affixed bases: 9 and 8 bases respectively. Only one instance of compound base has appeared, namely *wæstmbæ:ro* ‘fruitfulness’, from the compound adjective *wæstmbæ:re* ‘fruitful’. Focusing on recursivity, *-o* derivatives partake in the feeding of both compounding and affixational processes, as is shown by (12a) and (12b) respectively:

(12)

- a. *fyllo* ‘fullness’ (*wælfyllo* ‘fill of slaughter’, *wistfyllo* ‘fill of food’), *hyllo* ‘favour’ (*hla:fordhyllo* ‘loyalty’), *iello* ‘age’ (*langiello* ‘advanced age’), *magu* ‘son’ (*magodegn* ‘warrior’, *wuldormagu* ‘heir of heaven’)
- b. *biello* ‘boldness’ (*unbiello* ‘timidity’), *gehlytto* ‘fellowship’ (*to:gehlytto* ‘fellowship’, *miðgehlytto* ‘fellowship’), *hyllo* ‘favour’ (*unhyllo* ‘disfavour’)

Turning to *-u*, the derivation by means of this suffix is mainly gradual. Exceptions to this tendency include *gebæcu* ‘back parts’ (*bæc* 1 ‘back’), *gebro:ðru* ‘brethen’ (*[ge]bro:ðor* ‘brother’), *gedæftu* ‘gentleness’ (*dæfte* ‘gentle’), (*ge)re:ðru* ‘oars’ (*ro:ðer* 1 ‘rower’), *geswe:oru* ‘hills’ (*swe:or* 1 ‘pillar’) and *gewæ:pnu* ‘arms’ (*wæ:pen* ‘weapon’), all of which count as instances of parasynthesis. Derivatives in *-u* are mainly deverbal (27 derivatives) and deadjectival bases (31 derivatives), while 7 nominal bases have been identified. Examples of deverbal, deadjectival and nominal derivatives are given in (13a), (13b) and (13c), respectively:

(13)

- a. *giefu* ‘gift’ (*giefan* ‘give’), *sceaðu* ‘injury’ (*sceaðan* ‘injure’)
- b. *bierhtu* ‘brightness’ (*beorht* ‘bright’), *strengu* ‘strength’ (*strang* ‘strong’)
- c. *gebro:ðru* ‘brethen’ (*[ge]bro:ðor* ‘brother’), *gewæ:pnu* ‘arms’ (*wæ:pen* ‘weapon’)

As regards the form of bases, 16 bases of *-u* derivatives have undergone mutation, including *bierhtu* ‘brightness’ (*beorht* 1 ‘bright’), *bræ:du* ‘width’ (*bra:d* 1 ‘wide’), *cwalu* ‘killing’ (*[ge]cwelan* ‘kill’), *daru* ‘injury’ (*durran* ‘dare’), *gebygu* ‘a bend’ (*[ge]bu:gan* 1 ‘bow’), *hæ:tu* ‘heat’ (*ha:t* 1 ‘hot’), *lengu* ‘length’ (*lang* 1 ‘long’), *latu* ‘delay’ (*læt* 1 ‘late’), *menigu* ‘company’ (*manig* ‘many’), *myrðu* ‘mischief’ (*morðor* ‘murder’), *næcedu* ‘nakedness’ (*genacod* 1 ‘naked’), (*ge)re:ðru* ‘oars’ (*ro:ðer* 1 ‘rower’), (*ge)snyttu* ‘wisom’ (*snotor* ‘clever’), (*ge)stalu* ‘stealing’ (*[ge]stelan* ‘steal’), *strengu* ‘strength’ (*strang* ‘strong’) and *taru* ‘tear’ (*teran* ‘tear’). Besides, 16 bases have been inflected during the derivational process: *a:smu:gan* ‘investigate’ ~ *a:smogen* (*æ:smogu* ‘slough’), *biddan* ‘ask’ ~ *beden* (*bedu* ‘asking’), (*ge)bu:gan* 1 ‘bow’ ~ *bugon* (*gebygu* ‘a bend’), *cle:ofan* ‘cleave’ ~ *clufon* (*clufu* ‘clove’), (*ge)ce:owan* ‘chew’ ~ *cuwon* (*cwudu* ‘cud’), *cwelan* ‘kill’ ~ *cwæl* (*cwalu* ‘killing’), *durran* ‘dare’ ~ *dorren* (*daru* ‘injury’), *forgiefan* ‘forgive’ ~ *forgifen* (*forgifu* ‘gratia’), *ne:otan* ‘use’ ~ *noten* (*notu* ‘enjoyment’), *re:odan* ‘redden’ ~ *rudon* (*rudu* ‘red colour’), (*ge)scieran* ‘cleave’ ~ *scoren* (*scoru* ‘a score’), (*ge)stelan* ‘steal’ ~ *stæl* (*stalu* ‘stealing’), (*ge)swi:can* ‘wander’ ~ *swicen* (*geswicu* ‘cessation’), *teran* ‘tear’ ~ *tær* (*taru* ‘tear’), (*ge)te:on* 1 ‘pull’ ~ *togen* (*getogu* ‘traces’) and *wrecan* ‘drive’ ~ *wræc* (*wracu* ‘revenge’). The inflectional categories involved are the present singular, the past participle, the preterite singular and the preterite plural. With regard to the nature of bases, *-u* derivatives come from basic as well as affixal nouns, although *ny:dnimu* ‘rapine’ and *goldsmiðu* ‘goldsmith’s art’ are instances of compound bases. The inventory of underived bases and affixal bases is displayed in (14a) and (14b), respectively:

(14)

- a. *æðele* 'noble', *bæc* 1 'back', *beorht* 1 'bright', *biddan* 'ask', *bra:d* 1 'wide', *cle:ofan* 'cleave', *gedæfte* 'mild', *de:af* 'deaf', *durran* 'dare', *enge* 1 'narrow', *freme* 1 'vigorous', *giefan* 'give', *hæ:l* 3 'whole', *ha:t* 1 'hot', *læt* 1 'late', *lang* 1 'long', *manig* 'many', *micel* 1 'great', *morðor* 'murder', *ne:otan* 'use', *re:odan* 'redden', *ro:ðer* 1 'rower', *sacan* (2) 'struggle', *sceaðan* 'injure', *snytre* 'clever', *strang* 'strong', *swe:or* 1 'pillar', *swift* 'swift', *ðe:ostor* 'dark', *wæ:pen* 'weapon', *wi:d* 'wide', *wrecan* 'drive'
- b. *a:smu:gan* 'investigate', *bisig* 'busy', *forgiefan* 'forgive', *forlæ:tan* 'let go', *(ge)bro:ðor* 'brother', *(ge)bu:gan* 1 'bow', *(ge)ce:owan* 'chew', *(ge)cwelan* 'kill', *(ge)faran* 'go', *(ge)læ:tan* 'allow to remain', *(ge)lynde* 'fat', *genacod* 1 'naked', *(ge)scieran* 'cleave', *(ge)stelan* 'steal', *(ge)swi:can* 'wander', *(ge)teran* 'tear', *(ge)te:on* 1 'pull', *(ge)timber* 'timber', *(ge)tredan* 'tread', *(ge)wegan* 'carry', *mennisc* 1 'human', *ondrysne* 'terrible', *sincald* 'perpetually cold', *ungerisene* 1 'improper', *unlæ:d* 'poor', *unrihtwis* 'wrong', *unðæslíc* 'inappropriate', *unwemme* 'unblemished', *ymbfaran* 'surround'

As far as recursivity is concerned, *-u* derivatives feed mainly compounding processes, although *(ge)snyttru* 'wisdom' (*unsnyttru* 'folly') and *hæ:lu* 'health' (*unhæ:lu* 'sickness') constitute instances of the input of *-u* derivatives to further affixation processes. The full list of *-u* derivatives that take part in compounding can be seen in the Appendix.

4. Explanation

After the morphological description, in this section I offer an explanation for the inflection-derivation continuum as reflected by the Old English suffixes *-a*, *-e*, *-o*, *-u*, in terms of the Layered Structure of the Word (Martin Arista 2008, 2009, forthcoming c, d). The Layered Structure of the Word (hereafter LSW) is a model of word syntax and, as such, distinguishes categories and functions at word level and gives pride of place to the projection and percolation of morphological features. The key notion of this morphological model is the syntactic analysis of the clausal correlate, for which the clausal architecture of Role and Reference Grammar (Van Valin and LaPolla 1997; Van Valin 2005) is used. As in this structural-functional theory of language, the projection of linguistic units contains arguments (including argument-adjuncts) and operators.

The semantic domains of the LSW are arranged in a layered structure in such a way that outer layers include the inner ones. Each layer has its own operators and scope over outer layers implies scope over the inner layers. Bottom-up, the layers of the Simplex Word are the Nucleus, the Core and the Word. The Complex Word displays an additional outmost layer. In structural terms, the node Word directly dominates the node Core and the node Core, in turn, directly dominates the node Nucleus. In functional terms, syntactically motivated derivation is represented in the constituent projection by means of the insertion of lexical arguments that perform the functions of Argument, Argument-Adjunct and Periphery. Derivation without syntactic correlate and inflection are represented in the operator projection by means of, respectively, lexical and grammatical operators.

The lexical arguments in figure 2 follow from the analysis of the clausal correlate *someone finds brass*, in such a way that the First Argument is assigned to the role Effector and the Second Argument to the role Goal. The First Argument selects the

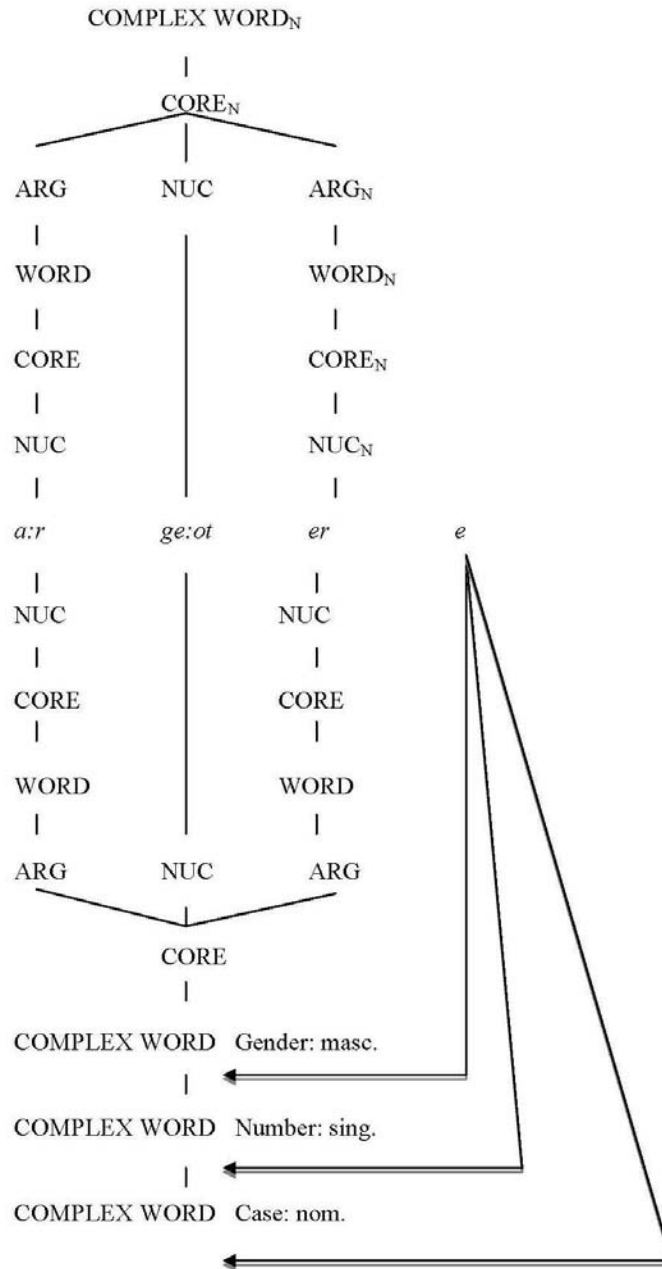


Figure 2. *a:rge:otere* 'brass-founder' in the LSW

suffixal predicate *er-* while the Second Argument is realized by the full predicate *a:r*. In the operator projection an important difference has been introduced with respect to the analysis carried out by Martín Arista (2008). Inflection is a Word/Complex Word operator, for two reasons: first, the insertion of gender, number and case operators in the top layer reinforce the morphological dimension of the proposal, whereas the insertion of these operators in the lower layers does not draw a clear distinction with the representation of the Noun Phrase; and, second, because grammatical gender is an inflectional phenomenon rather than a semantic property of the Old English word, which is consistent with the insertion of the gender operator at Word/Complex Word level and, moreover, in the same layer as case and number operators. Notice that the construction is exocentric: the morphological feature of category percolates from the Argument to the Nucleus. In figure 3, the analysis is motivated by the clausal correlate *someone delivers a message*, which displays an Effector First Argument realized by the suffixal predicate *-a* and a Goal Second Argument realized by the full predicate *æ:rend*. The most significant question posed by figure 3 is the double role performed by the suffix *-a*: it functions as a lexical argument in the argument projection and as a grammatical operator in the operator projection. In the former role, *-a* satisfies the syntactic requirement of inserting an argument into the First Argument slot of a transitive verb; in the latter role, *-a* fulfils the morphological requisite of providing the predicate with the paradigmatic form required by the morphological context, which requires nominative case and singular number. As the element around which the complexity of the construction revolves, *-a* is a morphological pivot. As the element responsible for guaranteeing the coreference of the predicate, *-a* is a morphological controller.

5. Concluding remarks

In the preceding sections I have addressed the question of the continuity between inflection and derivation as presented by the Old English suffixes *-a*, *-e*, *-o*, *-u*. Although the existence of continuity between the morphological processes of inflective and derivational nature is not a new topic of discussion, the analysis I have carried out parts company with previous approaches in considering the structural as well as the functional dimensions of the problem. I have not restricted the analysis to acknowledging the overlapping of inflectional and derivational phenomena. Rather, I have distinguished the syntactic from the morphological sides by analysing derivation in the constituent projection and inflection in the operator projection. Moreover, I have drawn a distinction between the syntactic function carried out by the lexical argument and the morphological function served by the lexical operator. I have also analysed the derivational affix as a morphological pivot and the inflectional affix as a morphological controller. For this analysis I have benefited from the LSW, which has shown other advantages. The LSW allows for a unified treatment of derivation and inflection in the synchronic axis, as well as a unified treatment of synchronic and diachronic aspects. Indeed, the double projection of the LSW combines derivational

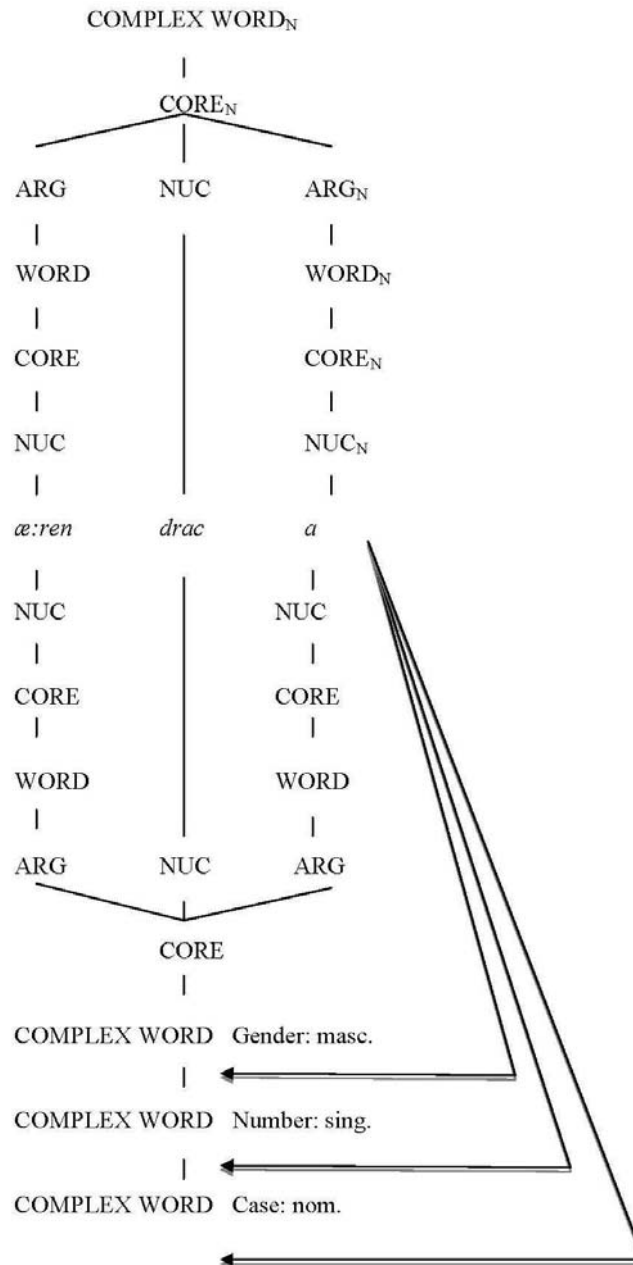


Figure 3. *a:rendraca* ‘messenger’ in the LSW

and inflectional derivation, while the monostratal representation that displays all the relevant elements and features in a single step avoids the need for empty elements, such as the historical formative *-en-* which is no longer present in the suffix *-a*. On the other

hand, I have pointed out that there is an area in which the LSW requires further attention, namely inflection as a Word/Complex Word operator. It has been shown that the insertion of gender, number and case operators in the top layer stresses the morphological character of the LSW, while it is more consistent with the grammatical nature of gender in Old English.

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Appendix

-a (all derivatives, 128): *a:dliga, æ:swica, a:ga, a:gi:ta, a:glæ:ca, anda, andetta, andfenga, andsaca, a:nsetla, a:nwalda, begenga, belæ:wa, be:na, beswica, bi:genga, boda, bo:nda, bora, brytta, bylda, cempa, ci:epa, cræftiga, cri:stena, cuma, cu:ða, cy:pa 2, de:ma, ealda, egesa, fædera 1, fe:ða, fle:ogenda, fli:ema, foreboda, forræ:ða, forwyrhta, freca, friða, fruma, fulwa, gedrinca, gæ:lsa, geeducoda, gefædera, geflota, gefultuma, gefylsta, (ge)gilda, gehata, gelenda, (ge)mæcca, (ge)ni:ehsta, geonga, (ge)saca, (ge)spreca, gete:ama, (ge)truma, getwisa, geðafa 1, geðeahta, geðe:owa,*

(ge)winna, (ge)wita, giefra, gielpna, gifola, hæ:ðena, ha:lga, ha:lwenda, handdæ:da, hre:ofla, hunta, hy:ra, ieldesta, ierfa, inwidda, læ:wa, lata, le:asbre:da, lida, melda, myrðra, ni:ehsta, ny:dnima, oferhoga, onspecca, onwealda, o:retta, pæ:ca, ræ:swa 1, ri:ca, ridda, sala, se:ma, sceaða, scytta, secga, slaga, ste:ora, stri:na, swica, sy:la, sylla, tilia, ti:ða, ðearfa 1, ðrymma, uncu:ða, ungelic:ca, unholda, u:ðwita, wæ:dla 2, wælslihta, webba, we:sa, wiga, wi:sa, wi:tega, wiðercora, wiðersaca, wiðerwearda, wiðerwinna, wlæ:tta, wo:da, wræcca, yfeldæ:da

-a in recursive word-formation (246), source and target category noun

Affixation (4): a:ga (una:ga), cempa (incempa), ste:ora (foreste:ora), (ge)wita (unwita)

Compounding (236): begenga (eardbegenga, landbegenga), be:na (færbe:na, friðbe:na, fulwihtbe:na), bi:genga 1 (eorðbi:genga, feohbi:genga, ro:dbi:genga), boda (æ:boda, bry:dboda, gebyrdboda, e:ðelboda, he:ahboda, ny:dboda, si:ðboda, spellboda, wilboda), bora (cæ:gborra, candelbora, ce:acborra, feorhbora, hornbora, le:ohtbora, mundbora, ræ:dbora, ræ:sborra, ro:dbora, segnborra, so:ðborra, stræ:lbora, sweordbora, ta:cnborra, wæ:gborra, wæ:penborra, wi:gborra, witumbora, wo:ðborra, wro:htborra), brytta (berebrytta, fo:ðderbrytta, hla:fbrytta, sincbrytta, wi:nbrytta), cempa (efencempa, fe:ðecempa, ræ:decempa, sigecempa, woruldempa), cræftiga (dry:cræftiga, galdorcræftiga, he:ahcræftiga, ri:mcraeftiga, scinncræftiga, sta:ncraeftiga, tungolcræftiga, woruldcraeftiga), cuma (cwealmcuma, wilcuma 1), cy:pa 2 (mynetcy:pa), de:ma (ealdorde:ma, he:ahde:ma, heofonde:ma, selfde:ma, sigede:ma, unrihtde:ma, woruldde:ma, yfelde:ma), egesa (blo:degessa, gle:degessa, hildegessa, li:gegessa, mæ:gðegessa, nihtegessa), fe:ða (gumfe:ða, herefe:ða), freca (gu:ðfreca, hildfreca, scildfreca, sweordfreca, wi:gfreca), fruma (dæ:dfruma, e:adfruma, hildfruma, landfruma, le:odfruma, le:ohtfruma, li:ffruma, ordfruma, ti:rfruma, ðe:odfruma, wi:gfruma, woruldfurma), gæ:lsa (hygegæ:lsa), giefra (æ:tgiefra, e:adgiefra, feorhgiefra, goldgiefra, sincgiefra, wilgiefra), (ge)gilda (friðgegilda, hæ:ðengilda, hy:regilda, me:dgilda), ha:lga (sundurha:lga), handdæ:da (rihthanddæ:da), gehata (cirichata, dæ:dhata, le:odhata, mannhata, mynsterhata, scyldhata), hunta (he:ahde:orhunta, hwælhunta), lata (dæ:dлата, hildлата), gelenda (inlenda, u:tlenda), lida (sæ:lida, sumorlida 1, sumorlida 2, y:ðlida), melda (stermelda), myrðra (bearnmyrðra, mæ:gmyrðra, mæ:gðmyrðra, mannmyrðra, selfmyrðra), ræ:swa 1 (hereræ:swa, magoræ:swa), ri:ca (fiðerri:ca, landri:ca, ðu:sendri:ca, woruldrri:ca), (ge)saca (andsaca, wiðersaca), sceaða (a:torsceaða, dolsceaða, fær:rsceaða, fe:ondsceaða, folcsceaða, fyrnsceaða, gielpsceða, gu:ðsceaða, he:ahsceaða, hellsceaða, le:odsceaða, lyftsceaða, ma:nsceaða, mo:rsceaða, ni:ðsceaða, sæ:sceaða, synsceaða, ðe:odsceaða, ðe:ofsceaða, u:htsceaða, wamsceaða), slaga (a:genslaga, bro:ðorslaga, fæderslaga, mæ:gslaga, manslaga, mo:dorslaga, morðorslaga), (ge)spreca (edwi:tspreca, forespreca, midspreca, oferspreca), ste:ora (scipste:ora), swica (fæderswica, hla:fordswica, ma:nswica), tilia (eorðtilia), (ge)truma (folctruma, fyrðtruma, scildtruma), ðearfa 1 (oferðearfa, woruldðearfa), wæ:dla 2 (ni:edwæ:dla), webba (friðowebba), wiga (æ:scwiga, beornwiga, byrnwiga, folcwiga, ga:rwiga, gu:ðwiga, lindwiga, ræ:dewiga, randwiga, ri:dwiga, scildwiga, ðe:odwiga, wæ:penwiga), (ge)winna (ealdgewinna, ealdorgewinna, la:ðgewinna, mo:dgewinna), wi:sa (brimwi:sa, campwi:sa, crætwi:sa, fyrðwi:sa, he:afodwi:sa, herewi:sa, hildewi:sa, mægenwi:sa, scridwi:sa, wordwi:sa), (ge)wita (æ:wita, burhwita, ealdwita, folcwita, fyrnwita, gearowita, he:ahwita, lahwita, la:rwita, le:asgewita, le:odwita, ræ:dwita, ru:nwita, sci:rwita, sti:wita, ðe:odwita, u:ðwita, woruldwita), wi:tega (gebyrdwi:tega, tungolwi:tega)

-e (all derivatives, 162): æ:menne 1, ætfele, a:ge, andfenge 2, andgiete 1, bearce, becyme, be:ne, bi:cwide, bi:genge, binde, bite, blæcce, blice, bræ:de, bry:ne, bryne, byge, byre, ciele, cwide, cyme, cyre, dræge, drepe, dryre, ece, fealle, felge, fe:ðe, fiðere, fle:oge, flo:de, flyge, gebæ:re, gebæ:te, (ge)bryce 1, (ge)bryce 3, gecwide, (ge)feohte, gefe:re 1, gefe:re 2, gefræ:ge 1, (ge)genge 2, (ge)genge 3, (ge)hilde, (ge)hrine, gelæ:te 1, gelege, gelise, geræ:de 1, geræ:de 2, gerihte, gesæ:te, gescipe, gescre:pe, geswo:pe, gewæ:ge, gewæ:de, gewynde, gewyrde 1, gewyrpe, gewyrðe, græfe, gripe, grynde, gryre, gyte, hæfe 1, hæ:re, hæ:te, hefe 1, hielde, hli:epe, hlyte, hryre 1, hu:fe, ielde, incyme, liðere, lufe, lyge 1, lyre, micge, myne 1, ofercyme, onhrine, onhryre, ontige, orlege 1, ræ:de, ryne, scea:pe 2, scipe, scitte, scriðe, scriðe, scyfe, scyte, scy:te, seohhe, sice 1, sige 2, slege 1, slide, slite 1, smitte, smiððe, snide 1, spiwe, spræ:ce, stæpe, stede, stige, stræ:de, stride, swice 1, swice 3, swinge, swyle, syde, syge 1, syle, sype, te:one, ti:ðe,

to:cyme, tyge, ðe:ostre 1, ðe:ote, ðurhfe:re 2, ðyrne, unne, wæcce, wæ:ge 1, wæ:te, wi:te, wielle, wiðre, wlite, wyrpe 1, wyrðe 2

-e in recursive word-formation, source and target category noun

Affixation (129): flyge (onflyge), bryce (fullbryce, onbryce, sa:mbryce), (ge)hrine (æthrine), grynde (æfgryne), gyte (ingyte, ongyte), ryne (æfterryne, edryne, forðryne, onryne, to:ryne, unryne, u:pryne, u:tryne, ymbryne), scipe (arodscipe, bro:ðorscipe, burgscipe, ca:fscipe, cynescipe, dearfscipe, de:ofolscipe, dolscipe, druncenscipe, dryhtscipe, dwolscipe, dyrnegelegerscipe, ealdordo:mscipe, ealdorscipe, eargscipe, edwi:tscipe, eorlscipe, fe:olagscipe, fe:ondscipe, folcscipe, fracodscipe, framscipe, fre:ondscipe, ga:lscipe, ge:apscipe, (ge)be:orscipe, (ge)bodscipe, (ge)burhscipe, (ge)corenscipe, (ge)fe:rscipe, (ge)gaderscipe, (ge)gildscipe, (ge)hu:sscipe, (ge)sinscipe, (ge)si:ðscipe, (ge)ðoftscipe, gebedscipe, gebro:ðorscipe, gele:fenscipe, geli:efenscipe, gemæ:nscipe, gemæcscipe, geongorscipe, gera:dscipe, gere:fscipe, gerestscipe, ge:rscipe, gescipe, geswæ:sscipe, getalscipe, gewitscipe, glædscipe, gle:awscipe, go:dscipe, hæ:medscipe, hæ:ðenscipe, he:amolscipe, herescipe, hinderscipe, hi:wscipe, hla:fordscipe, hogascipe, holdscipe, hwætscipe, ierscipe, la:dscipe, landscipe, la:ðscipe, le:odscipe, manscipe, metscipe, na:htscipe, ni:ðscipe, orretscipe, orðancscipe, pru:tscipe, re:ðscipe, rihtgesinscipe, rihtsinscipe, sinhi:wscipe, snellscipe, snotorscipe, sotscipe, stuntscipe, tu:nscipe, ðegnscipe, ðe:odscipe, ðe:owtscipe, ðwe:orscipe, unarodscipe, unca:fscipe, ungle:awscipe, unwærscipe, unweorðscipe, wa:cscipe, wærscipe, wæterscipe, weorðscipe, winescipe, wo:dscipe, woruldscipe, woruldweorðscipe, wræcscipe, wræ:nscipe, wro:htscipe), stæpe (instæpe 1, onstæpe), stede (wiðerstede), stige (forestige, oferstige), wæ:te (inwæ:te), wielle (edwielle)

Compounding (277): binde (wudubinde 1, wudubinde 2), bite (gristbite, la:ðbite, sweordbite), bræ:de (bræ:depanne, lendenbræ:de, weargbræ:de), bry:ne (fiscbry:ne), ciele (cielewearte, cielegicel), cwide (æ:rcwide, ca:lendcwide, cwidegiedd, folccwide, galdorcwide, gegncwide, gielpcwide, he:afodcwide, heardcwide, hearncwide 1, hle:oðorcwide, hospcwide, la:rcwide, leahtorcwide, le:oðcwide, mæðelcwide, sa:rcwide, sealmcwide, sibcwide, so:ðcwide, spellcwide, te:oncwide, torncwide, wamcwide, wordcwide), cyme (ge:ancyme, ha:mcyme, he:rcyme, hidercyme, hle:oðorcyme, onge:ancyme, seldcyme, ðidercyme, ðrymcyme), cyre (cyrea:ð, cyreli:f), drepe (de:aðdrepe), dryre (fæ:rdryre), ece (fo:tece, he:afodece, heortece, hypeba:nece, lendenece, si:dece, to:ðece, ðe:ohce), fealle (mu:sfealle), fe:ðe (fe:ðecempa, fe:ðegang, fe:ðegest, fe:ðehere, fe:ðehwearf, fe:ðela:st, fe:ðemann, fe:ðemund, fe:ðewi:g), fle:oge (buterfle:oge, hundesfle:oge, mo:rfl:oge), flo:de (citelflo:de, mæ:rfl:ode), flyge (flygepi:l), (ge)bryce 1 (a:ðbryce, ba:nbryce, brogbryce, burgbryce, ciricbryce, fæstenbryce, fre:olsbryce, griðbryce, ha:dbryce, he:afodbryce, hu:sbryce, lahbryce, lenctenbryce, mundbryce, regolbryce, scipbryce, sta:nbryce, wedbryce, woruldbryce), gecwide (wordgecwide), feohte (feohtehorn), (ge)genge 2 (nihtgenge), (ge)hilde (hiltecumbor, midhilde), (ge)hrine (handhrine), geræ:de 2 (seggeræ:de), gewæ:ge (sincgewæ:ge), gewyrpe (landgewyrpe, sandgewyrpe), gripe (fæ:rgripe, handgripe, mundgripe, ni:ðgripe, ny:dgripe 1), gryre (fæ:rgryre, gryrebrogga, gryregæst, gryregeatwe, gryrehwi:l, gryrele:oð, gryremiht, gryresi:ð, gryrefa:h 2, hellegryre, heortgryre, hinsi:ðgryre, le:odgryre, wælgryre, we:stengryre, wi:ggryre), gyte (blo:dgyte, gytæ:l, gytestre:am, wætergyte), hryre 1 (le:odhryre, li:chryre, niðerhryre, wi:ghryre), liðere (stæfliðere), lufe (eardlufe), lyge 1 (lygeword, lygesearu, lygespell, lygewyrhta), lyre (feorhlyre, landlyre, li:flyre, lyrewrenc), micge (cu:micge, hundesmicge), myne 1 (fre:ondmyne, wi:fmyne), ryne (blo:dryne, efrine, eorðryne, ge:anryne, onge:anryne, rihtryne, rynegiest, ryneðra:g, rynewæ:n, sciperyne), scyfe (niðerscyfe), scy:te (be:odscy:te, hopscy:te, wæterscy:te), sig 2 (niðersige), slege 1 (bro:ðorslege, de:aðslege, dolgslege, e:arslege, gegnslege, hearmslege, hearpslege, manslege, morðorslege, sa:rslege, slegeby:tl, sweordslege, ðe:ofslege, ðunreslege), slide (fæ:rlide), slite 1 (folcslite, lahslite, wyrmslite), smiððe (mynetsliððe), spræ:ce (godspræ:ce), stæpe (ordstæpe, stæpegong), stede (æscstede, bæ:lstede, bæ:ðstede, beorgstede, burgstede, campstede, cwealmstede, de:aðstede, ealhstede, eardstede, eorðstede, folcstede, gl:dstede, ha:mstede, he:afodstede, he:ahstede, hle:oðorstede, hle:owstede, hlo:ssstede, hu:ssstede, landstede, mæðelstede, mearcstede, gemotstede, mynsterstede, generstede, plegstede, stedewang, stedewist, sunstede, su:slstede, tre:owstede, tu:nstede, ðingstede, wa:fungstede, wangstede, werstede, wi:cstede),

stige (*niðerstige*), *swice* 1 (*æ:swice*, *hla:fordswice*, *la:rswice*), *swinge* (*ðre:aswinge*, *wi:teswinge*), *swyle* (*fo:tswyle*, *handswyle*), *syle* (*tyldsyle*), *to:cyme* (*hiderto:cyme*), *tyge* (*tygeho:c*, *tygehorn*), *ðe:ote* (*li:cðe:ote*, *wæterðe:ote*), *ðyrne* (*bre:melðyrne*, *bre:rðyrne*), *wæcce* (*ciricwæcce*, *nihtwæcce*), *wæ:ge* 1 (*ealuwæ:ge*, *efenwæ:ge*, *sincgewæ:ge*, *wæ:getunge*), *wi:te* (*a:nwi:te*, *bisceopwi:te*, *blo:dwi:te*, *dolwi:te*, *feohtwi:te*, *feohwi:te*, *fyrðwi:te*, *gierdwi:te*, *gyltwi:te*, *hangwi:te*, *hellewi:te*, *hengwi:te*, *legerwi:te*, *ne:adwi:te*, *scyldwi:te*, *sorgwi:te*, *weardwi:te*, *wi:tebend*, *wi:tebro:ga*, *wi:tecyll*, *wi:tegado:m*, *wi:tegeard*, *wi:tehrægl*, *wi:tehu:s*, *wi:tela:c*, *wi:tele:ast*, *wi:teræ:den*, *wi:tescræf*, *wi:testeng*, *wi:testo:w*, *wi:teswinge*, *wi:teðe:ow* 2, *woruldwite*, *wræcwi:te*, *wundwi:te*)

-o (all derivatives, 18): *bieldo*, *blæ:co*, *forhto*, *fyllo*, (*ge*)*fyrhto*, *gehlytto*, (*ge*)*synto*, (*ge*)*ðyngo*, *gry:to*, *hielto*, *hyldo*, *ieldo*, *mago*, *pry:to*, *unclæ:no*, *untrymmigo*, *wæstmbæ:ro*, *wiðerme:do*

-o in recursive derivation, source and target category noun

Compounding (6): *fyllo* (*wælfyllo*, *wistfyllo*), *hyldo* (*hla:fordhyldo*), *ieldo* (*langieldo*), *mago* (*magoðegn*, *wuldormago*)

Affixation (4): *bield* (*unbieldo*), *gehlytto* (*to:gehlytto*, *miðgehlytto*), *hyldo* (*unhyldo*)

-u (all derivatives, 65): *æ:smogu*, *æðelu*, *bedu*, *bierhtu*, *bisgu*, *bræ:du*, *clufu*, *cwalu*, *cwudu*, *daru*, *de:afu*, *engu*, *faru*, *forgiftu*, *forlæ:tu*, *fremu*, *gebæcu*, *gebrow:ðru*, *gebygu*, *gedæftu*, *gelatu*, *gelyndu*, (*ge*)*re:ðru*, (*ge*)*sacu*, (*ge*)*snytttru*, (*ge*)*stalu*, *geswe:oru*, *geswicu*, *getimbru*, *getogu*, *geðrafu* 1, *gewæ:pnu*, *giefu*, *goldsmiðu*, *hæ:lu*, *hæ:tu*, *latu*, *lengu*, *menigu*, *menniscu*, *micelu*, *myrðu*, *næcedu*, *notu*, *ny:dnimu*, *ondrynsnu*, *rudu*, *sacu*, *sceaðu*, *scoru*, *sincaldu*, *strengu*, *swiftu*, *taru*, *trodu*, *ðe:ostru*, *ungerisnu*, *unlæ:du*, *unrihtwi:su*, *unðæslicu*, *unwemmu*, *wegu*, *wi:du*, *wracu*, *ymbfaru*

-u in recursive derivation, source and target category noun

Affixation (2): (*ge*)*snytttru* (*unsnytttru*), *hæ:lu* (*unhæ:lu*)

Compounding (63): *cwalu* (*de:aðcwalu*, *di:cwalu*, *feorhcwalu*, *ga:stcwalu*, *hearmcwalu*, *hellcwalu*, *li:gcwalu*, *morðorcwalu*, *ni:ðcwalu*, *pi:necwalu*, *selfcwalu*, *su:slcwalu*, *swyltcwalu*), *faru* (*a:dfaru*, *ælfaru*, *æxfaru*, *cildfaru*, *earhfaru*, *framfaru*, *fyrðfaru*, *ga:rfaru*, *hagolfaru*, *ha:mfaru*, *huntaðfaru*, *infaru*, *manfaru*, *ni:edfaru*, *stre:amfaru*, *u:tfaru*, *wæ:gfaru*, *wægnfaru*, *wolcenfaru*, *y:ðfaru*), (*ge*)*re:ðru* (*webgere:ðru*), (*ge*)*sacu* (*woruldsacu*), *getimbru* (*boldgetimbru*, *he:ahgetimbru*), *giefu* (*e:adgiefu*, *feorhgiefu*, *hyhtgiefu*, *wo:ðgiefu*, *wundorgiefu*), *hæ:lu* (*hæ:lubearn*), *latu* (*wordlatu*), *lengu* (*handlengu*), *menigu* (*e:oredmenigu*, *mannmenigu*), *notu* (*ha:dnotu*, *sundornotu*), *scamu* (*woruldsamu*), *strengu* (*woruldstrengu*), *ðe:ostru* (*hinderðe:ostru*), *wracu* (*blo:dwracu*, *cringwracu*, *gnyrnwracu*, *gyrnwracu*, *ni:ðwracu*, *ny:dwracu*, *sa:rwracu*, *synwracu*, *tornwracu*, *ðe:ofwracu*, *ðe:owwracu*)

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