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The Semantics of Morphological Conversion in Old English

Abstract: The present article is an empirical, data-oriented study which focuses on the problem of morphological conversion and the way this mechanism was employed in Old English as a way of deriving new lexemes. The article briefly discusses the quantitative characteristics of the attested types, presents patterns of directionality and estimates the degree of availability of conversion in Old English grammar. The main part and purpose of the study, however, concerns the semantic characteristics of conversions sampled in the corpus. Drawing on the framework of semantic categories formulated by Clark and Clark (1979) and Plag (2003), the study aims to demonstrate semantic effects of the so-called zero-affix in Old English by looking into the relation that holds between the motivating base and the resultant derivative. Despite the fact that the availability of conversion was still quite limited in the Old English period, possibly due to numerous inflections that may have inhibited the transparency of this process, the study allows us to see how this process emerged and subsequently developed into one of the most productive word-formational techniques in the English language.

Keywords: morphological conversion, word-formation, zero derivation, Old English, morphology

1. Introduction

The present article focuses on the problem of morphological conversion and the way this mechanism was employed in Old English as a way of deriving new lexemes. It is a part of a broader diachronic project which aims at discovering the patterns, functions, and effects of conversion in the history of English word-formation. The research problems that are addressed in this study involve the patterns of directionality that can be identified in the data attested, the availability

of syntactic categories for shifting in the Old English period, and general tendencies concerning type frequencies of the patterns attested. The main objective of the present article, however, is to conduct a qualitative research, involving a data-oriented analysis of the semantic effects of morphological conversion as reflected in denominal verbs which have been extracted from the corpus.

2. The notion of *morphological conversion*

Morphological conversion is best defined as "the derivational process whereby an item changes its word-class without the addition of an affix" (Quirk, Randolph and Greenbaum 1987, 441). It can thus be seen as a type of a categorial shift whereby the semantic change which has taken place in the input is not formally reflected in the output, and this lack of any surface exponents poses a challenge to the one-to-one form-meaning mapping in morphological processes and, consequently, to their modelling. As a result, conversion holds a rather indeterminate position in a general theory of linguistics, and as a linguistic phenomenon it can be studied within the framework of morphology, word-formation[1], syntax, or even lexicon.

The number of methodological and theoretical approaches towards conversion is so large that even their brief discussion goes beyond the scope and purpose of this article. This multitude of approaches is accompanied by a variety of terminology applied in the literature on the subject. The most usual terms are *conversion*, because a word is converted (shifted) to a different part of speech, and *zero-derivation*, because the process is sometimes treated as deriving a new lexeme by means of a zero-affix, therefore creating a semantic dependence of one word upon another (Quirk et al. [1985]1997, 1558). This would imply that this affix exists – due to the fact that it is grammatically meaningful – although it cannot be seen. The scholars who treat the process in question as zero-derivation (Kastovsky 1968; 1974; Marchand 1969; Don 1993) see it as being analogous to affixal derivation, and the operation of the zero-suffix is paralleled with the occurrence of an overt suffixal analogue (cf. zero-affix in *hammer*, n. → *hammer*, v. versus overt affix in *atom*, n. → *atomize*, v., or, similarly, *call*, v. → *call*, n. versus *react*, v. → *reaction*, n.). The concept of suffixal analogy has been tightened up by Sanders (1988), who claims that a zero-affix is valid only in such cases where "there is a precise analogue in the language, where the same derivational function is marked in the derived word by an overt (non-zero) form" (Sanders 1988, 162). This restriction is frequently referred to as an *overt analogue criterion*, and is frequently taken as an effective testing ground for the operation of the zero-affix.

As the employment of Sanders's criterion to actual language data frequently speaks against the idea of zero-suffix, many scholars (e.g. Bauer 1983; Quirk et. al. [1985]1997; Plag 2003) prefer to treat the process under discussion as a kind of morphological operation, whereby a word moves, or is converted, from one

syntactic category to the other without any affixes employed. In this perspective, the process is referred to as *conversion*, or *functional shift*.

Other frameworks delegate morphological conversion to domains other than morphology, thus breaking up with the idea of form-meaning isomorphism. Lieber (1981; 1992; 2004; 2005), for example, argues that the process in question is not a morphological, but a purely lexical phenomenon which involves *relisting* of already existing items in the lexicon. She claims that the same linguistic form is listed in the lexicon again, but with different categorial information than it originally had. Slightly similar approaches, in the respect that they regard conversion not as a process which derives new lexemes, but as a matter of language use, have been adopted by such linguists as Koziol (1937), Nida (1949), and Pavesi (1998). Here, conversion is considered to be a matter of syntactic transposition, a view that is best illustrated by Cannon (1985, 67), who argues that "from a linguistic point of view, functional shift does not add a new form to the lexicon; but the inflectability or noninflectability of the new function shift requires it to be classed as a new form etymologically".

One cannot but mention a lot of interest that conversion enjoys in cognitive-oriented linguistics. Within such approaches, the idea of an affix is totally rejected, and instead conversion is considered to be a kind of semantic re-evaluation, or recategorization of existing conceptual categories. Such a view can be identified in Štekauer's onomasiological approach (2005), and, in a similar manner, in Twardzisz (1997), who argue that conversion is a purely semantic process involving semantic extension of already existing concepts. A still different explanation within cognitive frameworks with respect to describing the mechanics of conversions is offered by Dirven (1988) and Kövecses and Radden (1998), who treat this process as a metonymic or metaphoric transfer, along with the idea of conceptual metaphor first introduced by Lakoff and Johnson (1980). A more recent study within the cognitive framework has been offered by Martsa (2013), who sees conversion as a process which is caused by conceptual reanalysis of extralinguistic reality.

The afore-discussed approaches constitute what can be called the main trends in a very broad spectrum of various attitudes, explanations, and modellings of the mechanism of conversion. As can be seen, it is impossible to decide on a specific designation of this process without being automatically categorized as advocating an analogical viewpoint. As the present study is empirical rather than theoretical, and data-oriented rather than system-oriented, it will employ the term 'morphological conversion', as this is the most frequent and most readily recognizable term in the literature on the subject.

3. Previous studies on conversion in Old English

In contradistinction to the wealth of publications dealing with conversion from a theoretical point of view, the historical, empirically-oriented research is very scarce.

Apart from a few articles by Kastovsky (e.g. 1978; 2005), the only comprehensive study into the development of conversion in English is Biese (1941). Some diachronic aspects of the process have also been discussed in Balteiro (2007). Still, all of these publications deal only with the formal and quantitative aspects of conversion, such as the availability of individual syntactic categories, directionality, and frequency of the patterns attested. To the best of my knowledge, no previous studies on the semantics of conversion in the Old English period have been published.

4. Corpus data and methodology

The data for further analysis have been extracted from the quotation section of the *Oxford English Dictionary*, second edition on CD-ROM (Version 4.0).[2] Due care has been given to ensure that all relevant types that occur in the dictionary are identified. The study involves 287 types of conversions attested in the total corpus of 7,500 entries for which the first evidence of use is dated 1150 and earlier.[3] The precise criteria of type selection are described in the subsequent parts of the present section. Because of the lack of formal exponents of the process in question, all sampling has been performed manually, and the sampled types have been checked against the OED etymological data to confirm the directionality of derivation and the date of first attestation.

Due to the difficulties with sampling, and the inconspicuous nature of the process itself, the quantitative data are provided in terms of type (not token) frequency only. Moreover, the statistics concern only the actual conversions collected for analysis, and their aim is not to provide a detailed quantitative characteristics of conversion, but to outline general tendencies regarding the preferences of conversion for directionality and semantic effects. It is hoped that the collected material is extensive enough to allow for identifying dominant tendencies as far as the availability of individual patterns is concerned, and, more importantly, for discussing qualitative aspects of the sampled verbal types, as the qualitative analysis is the primary purpose of the presented study.

As far as the Present-Day English is concerned, conversion is without much controversy treated as one of the most productive word-formation techniques, because the basic form of nouns and verbs is identical in many cases (Aitchison 1989, 160). The productivity of this process in Old English, however, is frequently seen as very low. Many scholars claim that in inflecting languages, and such is Old English,[4] the availability of conversion is heavily restricted. Cannon (1985, 430), for example, claims that conversion is "usually impossible in languages with grammatical genders, declensions or conjugations". Other scholars argue that in the English language the rise of conversions was correlated with the loss of inflections (Biese 1941; Jespersen 1956), therefore the process became more productive only in the Middle English period. In the present article, this view will be challenged.

The data gathered are hopefully going to provide convincing arguments which demonstrate that morphological conversion was available as a word-formational mechanism already in the Old English period, although a slightly different methodological approach towards its operation is needed.

What the above-mentioned perspectives on conversion failed to take into consideration is the distinction into derivational and inflectional morphology, without which it is difficult, if not impossible, to account for conversion in inflecting languages. The definitions offered by Cannon (1985) or Biese (1941) seem to be working well for describing conversion from the point of view of the Present-Day English morphology, but are inadequate for dealing with this process in the Old English morphology. Cannon (1985), namely, defines conversion merely as a functional shift in which an existing word takes on a new syntactic function. Biese (1941, 6), on the other hand, does treat conversion as a derivational process, writing that conversion is "a process of word-formation which consists in making new verbs and nouns by way of using nouns and verbs, already existing in the language, in the function of other parts of speech, as verbs and nouns respectively", but despite this in his further study a clear-cut distinction into word-formational (i.e. derivational) and inflectional morphemes has not been made.

In contradistinction to the above-quoted approaches towards the process in question, in the present study conversion is treated as a derivational phenomenon, belonging strictly to the domain of word-formation, and defined as a **derivational** process linking **lexemes** of the same form but belonging to different word-classes. Therefore, markers of word-classes, such as stem formatives, including *-i-* element, consonantal gemination, voicing, and stem vowel change, are, after Kastovski (2005), treated as inflectional elements and thus as irrelevant for the results of the analysis of the data gathered. Kastovsky (2005, 45) convincingly argues that already in the Old English period stem-formatives lost their functions as derivational morphemes, which "resulted in a clear-cut split between derivation and inflection, and the replacement of the derivational element by zero". This brought about a radical restructuring of the morphological system of the language:

> In pre-OE morphology, inflection and derivation are not clearly separated – a reflex of the originally root-based type of morphology characterizing Indo-European. Phonological developments first brought about a shift from root-based to stem-based morphology. Eventually, progressive phonetic attrition of unstressed syllables carrying morphological information resulted in the loss of morphological exponents relevant for both derivation and inflection. The result was the split of the morphological processes into derivation and inflection on the one hand, and the replacement of overt derivational/inflectional markers by zero. (Kastovsky 2005, 45)

Ignoring the distinction into derivational and inflectional morphemes blurs the mechanics of conversion and in consequence may lead to misguided statements,

such as those by Cannon (1985) or Biese (1941), discussed in previous sections, that in languages with rich inflection, conversion is less frequent or even utterly impossible. To quote Kastovsky (2005, 46) again, "if one keeps inflection and derivation apart, no such conclusion can be drawn. Affixless derivation (whether we call it conversion or zero-derivation) has always been frequent in English, and for denominal verb-formation has been the normal process, the suffixal patterns being basically restricted to the non-native vocabulary".

A consequence of adopting such a perspective on Old English morphological system is that conversion in this study is defined as a process that yields lexemes, not word-forms, which is another aspect not taken into account by Cannon (1985), Biese (1941), or Jespersen (1956).

In addition to delegating conversion strictly to the domain of derivational morphology, the following four criteria have been adopted for identifying occurrences of conversion: 1) sameness of stem-form (with the exclusion of inflectional markers); 2) semantic relation between the bare derivative and its motivating stem; 3) etymological information which confirms the directionality of conversion; and 4) change of word-class.

The etymological criterion has made it possible to exclude from further analysis homographic, semantically related pairs which, in the light of etymological information are not proper instances of conversion. A more plausible analysis is that both lexemes were inherited from the common Germanic, or, in some cases, Western Germanic lexicon, and in later periods they became formally identical due to the reduction of inflectional morphemes and/or sound-changes. The examples of such word-pairs are *shoe*, n. and *shoe* v., *sleep*, n. and *sleep*, v., or *smell*, n. and *smell*, v. Such word-pairs are very numerous in the corpus, however, they have been rejected as they do not constitute the proper products of conversion understood as an English word-formational process, but instead should be classified as instances of simultaneous borrowing.

In accordance with the fourth criterion (i.e. change of syntactic category), word-pairs that illustrate the so-called *secondary word-class change* (Quirk et al. [1985]1997, 1563) have also been ruled out. This concerns shifts within the same syntactic category, as a shift from a countable noun to an uncountable noun or vice versa, a proper noun to a common noun, an intransitive verb to a transitive verb, a stative adjective to a dynamic adjective, etc. Due to the fact that such syntactic operations enjoy a rather dubious status in the literature on conversion, they have been excluded from further study. For the same reason, thematic vowel *-i-* that occurs in some converted lexemes is ignored, as it does not interfere with the analysis of the derivational process of conversion. In literature on OE morphology (e.g. in Mitchell and Robinson 1992; Reszkiewicz 1998; Hogg 2002; Smith 2009), the thematic vowel *-i-* is characterized as being present in declension of nouns, where it marks distinction between singular and plural, in conjugation of some verbs (mainly Class 1 weak verbs), marking alternation between present and preterite

forms, and also occurs as a marker of comparative and superlative forms of some adjectives. It can be concluded, then, that in the Old English morphological system, the thematic vowel *-i-* is an inflectional, not a derivational, marker, creating word-forms, not lexemes, therefore its presence does not have any influence on the analysis of conversion, which, as has to be emphasized, belongs to the domain of derivational morphology (see also Kastovsky 2005).

Additionally, considering the necessity to keep derivational and inflectional morphemes apart, the attested types with the prefix *ge-* have been excluded from further analysis due to their notoriously indeterminate status. On the one hand, some scholars categorize *ge-* as a derivational morpheme. For instance, Arista (2002) demonstrates in his study on the path of grammaticalization of the prefix *-ge* that in the Old English period the prefix lost its derivational productivity and became exclusively inflectional. On the other hand, McFadden (2015, 1) observes that "it is a matter of debate and controversy whether it served as a true derivational prefix, creating new lexical verbs, or more as an inflectional prefix, creating new (aspectual?) forms of existing lexemes".

After ruling out inflectional markers, homographic pairs, simultaneous borrowings, and secondary word-class shifts, we have sampled 287 types that satisfy the criteria of conversion in Old English. Out of these, bare verbalization (conversion verbs) is the most frequent pattern, yielding altogether 229 types, which makes 79,7% of the data. Bare nominalization (conversion nouns) is substantially less frequent – there are merely 42 types attested (14.63%). The next pattern is adverbialization – there are 12 types (4.18%). There is also a very small number of bare adjectivization (conversion adjectives) – only 4 types (1.39%). The overall distribution of conversion in terms of frequency of motivational patterns is illustrated in Figure 1:

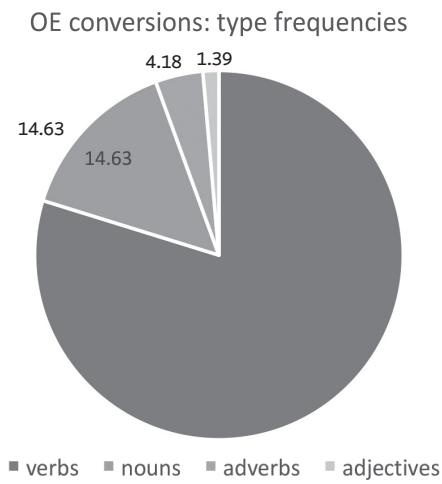

Fig. 1. Type frequencies of Old English conversions

5. Qualitative analysis: the semantics of Old English N→V conversions

This section focuses on the main goal of the study, which is the analysis of semantic effects brought about by conversion in the Old English language. The data subjected to analysis are denominal conversion verbs sampled in the corpus. The N→V motivational pattern is the most frequent directionality in the data gathered: there are 171 types representing this pattern, which constitutes 74.67% of the total number of conversion verbs, and 59.58% of the total number of conversion types.

The methodology which seems to have the most explanatory power with reference to the complexity and diversity of meanings triggered by conversion are semantic frameworks which employ the idea of the predicate-argument relations in natural language utterances. One such conception is the Lexical-Conceptual Structure formulated by Jackendoff in 1976 and subsequently developed in his later publications. However, the inventory of semantic primes has proved insufficient for dealing with the verbal data compiled in the present study, and, what is more, the complex notation of LCS semantics does not help to see the argument-structure, either. For these reasons, we have referred to other approaches, which, nevertheless, have a similar, argument-structure orientation. These are the frameworks offered by Clark and Clark (1979) and Plag (2003). In their pragmatically-oriented research on conversions in the English language, Clark and Clark (1979) distinguish five classes of conversion verbs, based on semantic roles that parent-nouns may play in the lexical-semantic representation. Thereby, they distinguish locatum verbs (e.g. *blanket*, *tunnel*), location and duration verbs (e.g. *kennel*, *summer*), agent and experience verbs (e.g. *jockey*, *witness*), goal and source verbs (e.g. *orphan*, *letter*), instrument verbs (e.g. *nail*, *towel*), and miscellaneous verbs (e.g. *lunch*, *blackberry*). Although the Clark and Clark's formula itself has proved very useful in the semantic analysis of the conversion verbs found in the corpus, the actual classes have turned out to be insufficient for the discussion of the data, as too many verbs fall into the 'miscellaneous' category. Therefore, a more detailed semantic classification of conversion verbs has been referred to, which is the semantic framework offered by Plag (2003). Here, 11 semantic verb classes are distinguished: locative, ornative, causative, resultative, inchoative, performative, similative, instrumental, privative, stative and motive. Such a categorization has proved more suitable for the analysis of the data collected, therefore this framework has been adopted and elaborated on in this study.

The following subsections discuss the semantic classes of zero-verbalizations in the order of decreasing frequency of occurrence. For the sake of clarity of discussion, the exemplary types are cited in their Modern English spelling, with the Old English spelling given in square brackets. Each example-type is followed by at least one citation illustrating its context of occurrence.

5.1 Performative verbs: 'perform/do X'; 72 types (42.10%)

Performative verbs, whose basic meaning can be rendered as 'perform/do X', constitute 42% of the types under analysis. As the actions that the zero-derived verbs denote relate to just one of the potential actions which the motivating noun can 'perform', the semantic relation between the base noun and the derived verb can be quite intricate and to a large extent context-dependent. Some examples of Old English verbs whose general meaning may be rendered as 'perform/do X' attested in the corpora are provided below:

camp, v.1 [OE *campian*] 'To fight; to contend in battle'
(1) c1000 Guthlac 316 (Gr.) Sceal oretta a..gode **compian**.
gospel, v. [OE *godspellian*] 'To preach the gospel to'
(2) c1000 Ags. Ps. (Th.) lxvii. 12 God ȝifeð gleaw word **god~spellendum**.
mele, v. [OE *mǽlan*] 'To speak, tell'
(3) c1000 Ags. Ps. (Th.) lxxxiv. 7 Hwæt me haliȝ God, on minum mod-sefan, **mælan** wille.
rerd, v. [OE *reordian*] 'To speak, discourse'
(4) Beowulf 3025 Sceal..se wonna hrefn..fela **reordian**.
(5) a 900 Cynewulf Christ 196 Þa seo femne..þus **reordode**.
sweven, v. [OE *swefnian*] 'To dream'
(6) c1000 Sax. Leechd. III. 212 ᴀif ðu **swefnast** ðe tweȝe monan ȝeseon.

5.2 Ornative verbs: 'provide with X'; 26 types (15.20%)

The second most frequent semantic category of denominal verbalizations is that of ornative verbs, which in broad terms bear the meaning 'provide with X'. The ornative verb data constitute 15% of all the N→V data extracted from the corpus. The illustrative examples involving ornative verbs occurring in the corpus are listed below with glosses conveying their specific meanings in the corpus materials:

cleam, v. [OE *clǽman*] 'To smear, anoint, bedaub, plaster; to rub, or daub (sticky matter) on, or (a place) with sticky matter'
(7) c1000 Ælfric Gram. xxviii. (Z.) 165 Lino, ic **clæme**.
feather, v. [OE *ȝefiðria*] 'To cover or furnish with feathers'
(8) c 888 K. Ælfred Boeth. xxxvi. §1 Ic sceal ærest þin mod **ȝefiðerian**.
helm, v. [OE *helmian*] 'To furnish or cover with a helm'
(9) a 1000 Andreas 1307 (Gr.) Niht **helmade**..beorȝas steape.

5.3 Instrumental verbs: ‘use X’; 20 types (11.69%)

At a general level, instrumental verbs express the meaning ‘use X’, however, as in the case of performative verbs discussed above, also here the exact semantic relation between the base noun and the verbal derivative is to a large extent dependent on the context, as in many cases the actual use of the object denoted by the noun does not refer to its canonical (or most typical) function. Despite the fact that instrumental verbs are in general frequent in English, it is not reflected in the data, as here only 11.69% of all N→V types comply with this semantic pattern.

claw, v. [OE *clawian*] ‘To scratch or tear with the claws’
(10) c1000 Ælfric Gram. xxviii. (Z.) 170 Scalpo, ic **clawe**.
harp, v. [OE *hearpian*] ‘To play on a harp’
(11) c 888 K. Ælfred Boeth. xxxv. §6 He mihte **hearpian** þæt þe wudu waȝode.
hasp, v. [OE *hæpsian*] ‘To fasten with a hasp’
(12) c1000 Ælfric Gram. xxxvii. (Z.) 220 Ic scytte sum loc oððe **hæpsiȝe**.
fire, v. [OE *fýrian*] ‘To supply with firing’
(13) c 970 Canons of Edgar, Penitents §14 Fede þearfan and scryde and husiȝe and **fyriȝe**, baðiȝe and beddiȝe.
path, v. [OE *pæþþan*] ‘To go upon or along, to ‘tread’ (a way, etc.)’
(14) a1000 Riddles lxxi. 10 Ic..mearcpaðas Walas træd, moras **pæðde**.
pepper, v. [OE *piporian*, *piprian*, *ȝepiperian*] ‘To sprinkle with pepper; to flavour or season with pepper; to treat with pepper’
(15) c1000 Sax. Leechd. II. 182 Sele þonne **ȝepiporodne** wyrtdrenc.
(16) Ibid. III. 76 **Pipra** hit syþþan swa swa man wille.
ship, v. [OE *scipian*] ‘To go on board ship’
(17) a 1122 O.E.Chron. (Laud MS.) an.1091 Se eorl..on Wiht **scipode** & into Normandiȝ for.
temse, v. [OE *tęm(e)sian*] ‘To sift or bolt with a temse’
(18) c 950 Lindisf. Gosp. Mark ii. 26 Huu inn-eode hus godes..& hlafo fore-ȝeȝearwad vel **temised** ȝebréc.
thirl, v. [OE *Þyrlian*] ‘To pierce, to run through or into (a body) as a sharp-pointed instrument does’
(19) c1000 Ælfric Exod. xxi. 6 **Þirlie** his eare mid anum æle.

5.4 Causative verbs: ‘make X’; 19 types (11.11%)

The class of causative verbs, whose general meaning can be paraphrased as ‘make X’, constitutes 11% of the data. It has to be noted, though, that in the texts many types are indeterminate between causative and performative senses. Another characteristic feature of this class is a frequent polysemy between causative and

other meanings. The instances of Old English causative conversion verbs are provided below:

fleme, v. [OE *flíeman*] 'To cause to flee, put to flight; to drive away'
(20) a1000 Cædmon's Gen. 2115 (Gr.) Ac hie god **flymde**.
pine, v. [OE *pínian*] 'To afflict with pain or suffering; to cause to suffer'
(21) c893 K. Ælfred Oros ii. iii. §4 Ða **pineden** hie hiene mid ðæm ðæt hie his hand forbærndon.
(22) 1154 O.E. Chron. an. 1137 [Hi] **pineden** him alle þe ilce pining ðat ure Drihten was **pined**.
thirl, v. [OE *þyrlian*] 'To pierce, to run through or into (a body) as a sharp-pointed instrument does'
(23) c1000 Ælfric Exod. xxi. 6 **Þirlie** his eare mid anum æle.
thunder, v. [OE *þunrian*] 'To cause or give forth thunder'
(24) a1000 Ags. Ps. (Th.) xxvii[i]. 3 He is mæȝen-þrymmes God, and he **þunrað** ofer maneȝum wæterum.
grith, v. [OE *griðian*] 'To make peace'
(25) 1154 O.E. Chron. an. 1016 (Laud MS.) Lundene waru **griðede** wið þone here.

5.5 Stative verbs: 'be X'; 9 types (5.26%)

The next semantic category is that of stative verbs, whose general meaning may be glossed as 'be X'. This class is represented by nine lexemes in the corpus, which comprise 5.26% of the data under analysis.

token, v. [OE *tácnian*] 'To be a token or sign of'
(26) c 888 Ælfred Boeth. xxxix. §13 Þon **tacnnað** [se steorra] æfen.
theine, *theign*, v. [OE *þeȝnian*] 'To be a servant or minister'
(27) Beowulf 561 Ic him **þenode** deoran sweorde swa hit ȝedefe wæs.
(28) c1000 Ags. Gosp. ibid., Ða aras heo & **þenode** him.
theow, *thew*, v. [OE *þéowian*] 'To be a serf or servant to'
(29) c888 K. Ælfred Boeth. xxi. §1 Þa **ðeowiað** ealle þa þe ðeowiað, ȝe ða þe cunnon ȝe þa þe ne cunnon.
bysen, v. [OE *býsenian*] 'To set an example to'
(30) a1000 K. Ælfred Boeth. xxxiii. §4 Ne **bisnode** þe nan man, forþam ðe nan ær þe næs.

The other stative verbal types attested in the corpus are *shame* [OE *sc*(*e*)*amian*, *sc*(*e*)*ǫmian*] 'to feel or conceive shame; to be ashamed', *sorrow* [OE *sorȝian*] 'to feel sorrow', *thirst* [OE *þyrstan*] 'to feel or suffer thirst; to be thirsty', *tweon* [OE *twéonian*] 'to be doubtful', and *ward* [OE *weardian*] 'to guard, stand guard over'.

5.6 Locative verbs: ‘put in(to) X’; 7 types (4.09%)

The next semantic category to be discussed are locative verbs. Their general meaning can be glossed as ‘put in(to) X’, and, as will be demonstrated with the examples below, the locative verbal data are rather compositional in terms of the actual relation that holds between their arguments.

house, v. [OE *húsian*] ‘To put into a house’
(31) c1000 Leges Penit. c. 14 in Thorpe Laws II. 282 Fede þearfan and scryde and **husiȝe**.
settle, v. [OE *setlan*] ‘To put in a place of rest’
(32) c1000 Whale 15 (Gr.) Wæȝliþende..**setlaþ** sæmearas sundes æt ende.
sty, v. [OE *stiȝian*] ‘To place or confine in a sty’
(33) a1100 Gerefa in Anglia IX. 262 Swyn **stiȝian**.

Apart from the types exemplified above, the other sampled locative verbs include *pind* [OE (*ȝe*)*pyndan*] ‘to shut up, enclose in a pound; to dam up (water)’, *ship* [OE *scipian*] ‘to put or take (persons or things) on board ship’, *swathe* [OE *swaþian*] ‘to envelop in a swathe’, and *erde* [OE *eardian*] ‘to inhabit’.

5.7 Resultative verbs: ‘make into X’; 7 types (4.09%)

Resultative verbs are also poorly represented in the corpus, as they comprise only 4% of all the denominal verbs collected. In general terms, this category is glossed as ‘make into X’, although many instances of our data do not fall neatly into this annotation. Instead, they can be characterized semantically as ‘referring to the action that results in X’:

outlaw, v. [OE (*ȝe*)*útlaȝian*] ‘To put outside the law; to proscribe’
(34) O.E.Chron. an.1014 (MS. E) And æfre ælcne Denisce cyning **utlaȝede** [MS. C. utlah] of Englalande ȝecwædon.
wary, v. [OE *wierȝan*] ‘To invoke a curse upon; to declare accursed; to pour maledictions upon’
(35) c725 Corpus Gloss. D 25 Deuotaturus, **werȝendi**.
(36) c897 Ælfred Gregory’s Past. C. xlix. 376 Se þe his hwæte hyt, hiene **wierȝð** ðæt folc.
law, v. [OE *laȝian*] ‘To ordain (laws); to establish as a law; to render lawful’
(37) a1023 Wulfstan Hom. li. (Napier) 274/7 **Laȝjaþ** gode woroldlaȝan and lecȝað þærtoeacan, þæt ure cristendom fæste stande.
trap, v. [OE **træppan* in *betræppan*, (*be*)*treppan* (*betrap*)] ‘To catch in or as in a trap, entrap, ensnare’
(38) a 900 Kentish Gloss. 211 (Bosw.-T.) Hio **trepte**, inretivit.

The other resultative verbs in the corpus are *christen* [OE *cristn-ian*] 'to convert to Christianity, make Christian', *heap* [OE *héapian*] 'to make into a heap', and *wive* [OE *wífian*] 'to take a wife, to make one's wife'.

5.8 Similative verbs: 'act like/as X'; 5 types (2.92%)

Even more infrequent in the corpus are similative verbs, whose meaning in general terms can be rendered as 'act like/as X'. There are only five types representing this meaning attested in the corpus. Also, half of the types are polysemous, and in such cases the similative meaning is the secondary one.

shield, v. [OE *scildan*] 'To offer a defence, to act as a shield'
(39) c888 Ælfred Boeth. xviii. §4 Ac siððan he his hispinge ȝehered hæfde, þa **scylde** he onȝean swiðe unȝeþyldelice.
shadow, v. [OE *sceadwian*] 'To shelter or protect as with covering wings'
(40) c1000 Lambeth Ps. xc. 4 His sculdrum he **scaduaþ** þe [obumbrabit tibi].

The remaining types are *thieve* [OE *þéofian*] 'to act as a thief, commit theft, steal', *tide* [OE *tídan*] 'to fall as a lot or portion', and *wroot* [OE *wrótan*] 'to turn up soil with the snout, as swine in search of food'.

5.9 Inchoative verbs: 'become X'; 4 types (2.63%)

Inchoative verbs, glossed generally as 'become X', are represented by only four types (2.63% of the data), and consequently are of little significance in comparison with most of the other verb types. Moreover, the inchoative sense seems to be a secondary semantic development, as the verbs are polysemous with other senses. Two examples of inchoative verbs are provided below:

end, v. [OE *endian*] 'To come to an end'
(41) a1000 Guthlac 21 (Gr.) Ær þou **endien** ealle ȝesceafte.
mist, v. [OE *mistian*] 'To be or become misty'
(42) c1000 Ælfric Gram. xxxvi. 216 Caligo me **mistiað** mine eaȝan.

The remaining two types with inchoative sense are *drop* [OE *dropian*] 'of a liquid: to become drops; to fall in drops', and *wheal* [OE *hwelian*] 'to become pimpled; become affected with wheals'.

5.10 Privative verbs: 'remove X'; 2 types (1.16%)

Privative class of verbs, whose meaning is rendered generally as 'remove X', seems to be of very marginal significance in the Old English conversion, which is

confirmed by their low frequency. We have attested only two instances of privative verbs:

evese, v. [OE *efesian*] 'To cut, clip'
(43) c1000 Ælfric Gram. xxvi. (Z.) 157 Ic **efesiȝe** oð ðe ic scere scep oððe hors.
weed, v. [OE *wéodian*] 'To clear the ground of weeds; to pull up weeds'
(44) a1100 Gerefa in Anglia IX. 261 Me mæiȝ..on sumera fealȝian..tymbrian, wudian, **weodian**, faldian.

5.11 Motive verbs: 'move using X'; 0 types

Motive verbs is the only semantic category for which no representative types have been found.

5.12 Other verbs

Not all the attested verbs have fitted neatly in the above-discussed semantic classes. One such group are verbs that are attested in impersonal constructions. The data include six such types: *need*, *hunger*, *thirst*, *thunder*, *tide*, *wark*. Their textual context is illustrated in the following corpus extracts:

need, v. [OE *néodian*] 'It needs, it is needful or necessary'
(45) c 960 Æthelwold Rule St. Benet (Schröer) 89 On cealdum eardum **neodað**, þæt þæs reafes mare sy.
hunger, v. [OE *hyngran*] 'It hungers me'
(46) 950 Lindisf. Gosp. John vi. 35 Seðe cymes to me ne **hyncgreð** hine.
(47) c1000 Ags. Gosp. ibid., Ne **hingrað** þone þe to me cymð.
thirst, v. [OE *þyrstan*] 'Me thirsteth'
(48) c897 K. Ælfred Gregory's Past. C. ii. 30 Ðeah ðæt folc **ðyrste** ðære lare.
(49) c1000 Ags. Gosp. John xix. 28 Þa cwæð he, me **þyrst**.
thunder, v. [OE *þunrian*] 'It thunders, thunder sounds, there is thunder'
(50) c888 K. Ælfred Boeth. xxxix. §3 Hit hwilum **þunrað**, hwilum na ne onginð.
tide, v. [OE *tídan*] 'To happen, befall'
(51) a1131 O.E. Chron. an. 1123 Þa **tidde** hit on an Wodnes dei..þet se king rad in his der fald.
wark, v. [OE *wærcan*] 'To ache, suffer pain; to throb painfully'
(52) a1000 Sax. Leechd. II. 272 ᴀif hine innan **wærce** ȝenim niȝes ealað amber fulne.

Also, some attested types have turned out to be difficult to classify semantically due to either their indeterminate meaning or meaning that does not seem to fit into

any of the above-distinguished semantic classes. Such is the case of the verb *strut* [OE *strútian*], whose sense in *Ælfric Saints' Lives* is obscure:

(53) Ælfric Saints' Lives xxxii. 208 Swa þæt se halȝa wer hi wundorlice ȝeband, ælcne swa he stod **strutiȝende** mid tole, þæt heora nan ne mihte þæt morð ȝefremman, ne hi þanon astyrian.

5.13 Polysemy of individual types

A frequently observed phenomenon in the data is the polysemy of individual types. Some N→V types are polysemous with transitive and intransitive senses. Altogether, in the corpus we have identified 21 such verbs, which makes up 12.28% of the total number of denominal verbalizations.

There are also verbs that are polysemous between two or more semantic classes. We have identified 17 such types, which makes 10% of all N→V types. For example, the verb *end* occurs in the corpus with three different senses: as a performative verb, as a causative verb, and as an inchoative verb:

end, v. [OE *endian*]
Performative sense: 'To carry through to the end; to finish, complete'
(54) c975 Rushw. Gosp. John iv. 34 Þætte ic **endigo** werc his.
Causative sense: 'To put an end to, cause to cease'
(55) c1000 Ags. Ps. ix. 6 Ða hi hit **endian** sceoldan.
Inchoative sense: 'To come to an end'
(56) a1000 Guthlac 21 (Gr.) Ær þou **endien** ealle ȝesceafte.

Similarly, the verb *shield* demonstrates polysemy with instrumental and similative senses:

shield, v. [OE *scildan*]
Instrumental sense: 'To protect (a person or object) by the interposition of some means of defence'
(57) Beowulf 1658 Ætrihte wæs guð ȝetwæfed, nymðe mec god **scylde**.
Similative sense: 'To offer a defence, to act as a shield'
(58) c888 Ælfred Boeth. xviii. §4 Ac siððan he his hispinge ȝehered hæfde, þa **scylde** he onȝean swiðe unȝeþyldelice.

The verb which has been attested with the highest number of different senses is the type *name*, which is used in the corpus as an ornative, instrumental, causative, and performative verb:

name, v. [OE (ȝe)*namian*]

Ornative sense: 'To give a name to'
(59) c1000 Ælfric Gen. ii. 20 Adam þa ȝenamode ealle nytenu heora **namum**.
Instrumental sense: 'To call by a name'
(60) c900 in Bouterwek Screadunga 18 Hwi **namode** Crist on his godspelle Abel rihtwisne toforan oþrum?
Causative sense: 'To nominate to some office, duty, or position'
(61) a1000 Laws Edw. in Thorpe I. 158 ȝif he..ne mehte, þonne **namede** him man six men.
Performative sense: 'To mention, speak of, or specify by name'
(62) c1000 Ælfric Saints' Lives viii. 165 Quintianus cwæð..'ȝit þu **namast** Crist?'

6. Conclusion

The results of the quantitative analysis of conversions sampled in the quotation section of the OED speak in favour of the opinion that conversion as a productive process (i.e. yielding new lexemes) was available already in the Old English period despite the fact that the language of that period was still quite rich in inflections. Although under close, etymological scrutiny many currently homographic pair-words dating back to Old English are not in fact the outputs of conversion, but should instead be treated as instances of simultaneous borrowings, usually taken from other Germanic languages, the data gathered in the study still feature many proper zero-derivatives, i.e. formed already on English stems. This fact, then, speaks against the commonly expressed view that conversion as a word-formational process arose only in the Middle English period after the decline of most inflections.

It has to be noted, however, that the process in Old English seems to have been more restricted than in later periods. First of all, one can notice constraints in terms of the availability of syntactic categories for conversion: as many as 94.5% of all shifts involve nominal and verbal bases, other lexical classes are poorly represented in the data, accounting merely for the 4.5% of converted neologisms. The most preferred input for conversion are morphologically simple monosyllabic nouns. There have been found no conversions from non-lexical words, from proper nouns, or from morphologically complex bases. However, it has be taken into account that these restrictions might stem from the specificity of text-types and their general scarcity.

The grammatical restrictions of the Old English conversions are also paralleled by the constraints in the semantic structure of denominal zero-derivatives. Despite the fact that the scope of actual semantic classes is very broad, since as many as ten semantic categories are represented by the data, the majority (57.30%) of conversion verbs belong to just two classes: performative and ornative verbs. Also, many semantic classes are characterized by low type frequency. The summary of the qualitative discussion of the verbal types and their semantic categorization is presented in Table 1 below.

Table 1. The semantics of N→V conversions: summary

N→V types: semantics											
	Performative	Ornative	Instrumental	Causative	Stative	Locative	Resultative	Similative	Inchoative	Privative	Motive
%	42.10	15.20	11.69	11.11	5.26	4.09	4.09	2.92	2.63	1.16	---
Total	80%				20%						

Another characteristics of the Old English N→V types is their semantic instability. As has been shown, a large number of conversion verbs occur in the corpora with many different senses and their interpretation is heavily context-dependent. This polysemy might point to the fact that in Old English the process of conversion answered the demand for coining new words *ad hoc*, as a response to contextual needs.

Taking all the afore-mentioned characteristics of the data subjected to analysis, it can be generally concluded that contrary to oft-cited statements whereby conversion became available only in the Middle English period, it has been demonstrated that this process came into operation as early as in the Old English period, although its range of application seems to have been quite restricted.

Notes

1. Although traditionally word-formation has been treated as part of morphology, some scholars prefer to see it as a separate field of linguistics, independent of both morphology and syntax. Dokulil (1997, 185), for example, conceives of word-formation as an "autonomous domain within the system of linguistics". Such a perspective on word-formation has also been adopted by other scholars following the cognitive onomasiological theory, who claim that word-formation is an "independent component of linguistics" (Štekauer 2005, 212).
2 Originally, available corpora of Old English texts have been used for the research (e.g. *Toronto Dictionary of Old English*), but since they are not lemmatized for conversion, and since the attested types had to be checked in the OED anyway for etymological information in order to confirm that they are proper instances of conversion, the idea of searching in such sources has been eventually abandoned.
3 The end date of the OE period is taken after Reszkiewicz 1998.
4 The fact that OE is an inflectional language does not seem to arouse controversies. However, the degree of the inflectional character of the language is differently perceived by various scholars. The differences seem to be caused by differences in the point of reference. Therefore, when compared to Hebrew

or Latin, Old English can be characterized as moderately inflected (which may account for Mitchell and Robinson's view (1992, 62) whereby OE is a "'half-inflected' language". When PDE is taken as a point of reference, however, inflectional complexity of OE comes to the fore, hence Hogg (2008, 122), for example, writes that "Old English was highly inflected".

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