

Article

# A Constructionist and Corpus-Based Approach to Formulas in Old English Poetry

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**Abstract:** This paper explores a constructionist and corpus-based approach to Old English formulaic language through an analysis of the “*māpelode* system” of speech introductions. The analysis is performed on a section of the *York-Helsinki Parsed Corpus of Old English Poetry*, comprising the poems *Beowulf*, *Battle of Brunanburh*, and *Exodus*. The results show that most instances of the *māpelode* system belong to a well-attested construction continuum, structured by the widespread Old English (and ultimately Germanic) poetic devices of variation and kenning. This continuum ranges from more fixed repetitions that exclusively involve the verb *māpelian* to more schematic patterns that are also attested by other SPEECH verbs, by verbs of GIVING, as well as by a number of further verbs of various semantic types. The particularly high frequency of this pattern with SPEECH verbs and verbs of GIVING matches the prominent role, highlighted by previous studies, of both word-exchange and gift-exchange within Old English heroic ideology, and suggests that these formulaic patterns served the purpose to characterize the protagonists of SPEECH or GIVING events as heroic and/or lordly figures.

**Keywords:** Old English poetry; formulas; oral-formulaic language; Construction Grammar; corpus linguistics; annotated corpora



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## 1. Introduction

Soon after Parry ([1928] 1971) and Lord (1960) first demonstrated the oral-formulaic character of Homeric Greek poetry, scholars such as Magoun (1953) and Kiparsky (1976) drew attention to its relevance for other poetic traditions. More precisely, Magoun (1953) first argued that the poem *Beowulf* was the product of oral-traditional poetics and of composition-in-performance on the basis of a detailed analysis of the poem’s first 25 lines, which attest an impressive number of phrases occurring in other Old English poems as well, closely matching Parry’s ([1930] 1971, p. 272) original definition of the Homeric formula as, “a group of words which is regularly employed under the same metrical conditions to express a given essential idea”. Starting from Magoun (1953), Old English scholars have also highlighted important differences between Homeric formulas and Old English diction, the latter being based on variation rather than economy, and on flexible and abstract patterns rather than fixed repetitions. This has led to less rigid definitions of the phenomenon of formulaic diction in Old English literature.

In recent years, the study of formulas in both Homeric and Germanic traditions has received new stimulus from innovative approaches stemming from contemporary linguistic theory. More precisely, research on English idiomatic expressions has led to the formulation of Construction Grammar (Fillmore et al. 1988; Goldberg 1995), a theoretical framework that takes constructions, i.e., “learned pairings of form with semantic or discourse function” (Goldberg 2006, p. 5), as the basic units of language. By avoiding a strict division between

lexicon and syntax, construction-based approaches are able to capture both fixed repetitions and more flexible or schematic patterns of poetic language, as first argued by [Bozzone \(2014\)](#) for Homeric formulas and by [Frog \(2014a, 2014b, 2014c\)](#) for Old Norse kennings, and have also been applied to Old English texts within a larger historical-comparative analysis of Indo-European formulaic patterns ([Ginevra 2023](#), pp. 239–44).

In the present contribution, building on previous constructionist and computer-based research on Vedic Sanskrit ([Biagetti 2023](#); [Brigada Villa et al. 2023](#)) and Homeric Greek ([Brigada Villa et al., forthcoming](#)), we perform a constructionist analysis of a relatively limited section (comprising *Beowulf*, *Battle of Brunanburh*, and *Exodus*) of the *York-Helsinki Parsed Corpus of Old English Poetry* ([Pintzuk and Plug 2002](#)), converted into the CoNLL-U format according to the same conversion table applied to the *York-Toronto-Helsinki Parsed Corpus of Old English Prose* ([Taylor et al. 2003](#)) by [Brigada Villa and Giarda \(2023\)](#).

More precisely, in this pilot study, we test our approach by focusing on the formulaic “*mapelode system*” of speech introductions in *Beowulf* (a famous repetition pattern, at least since [Cook \(1926\)](#) proposed its origin from Homeric influence), showing that, far from being an isolated phenomenon, this system’s main pattern rather belongs to a well-attested continuum, ranging from more fixed repetitions to more schematic patterns, always structured by the well-known Old English poetic devices of variation and kenning.

## 2. Materials and Methods

### 2.1. Theoretical Framework

The notion of formula in oral poetry is generally associated with the work of Milman Parry and his former student and successor in the field, Albert B. Lord, who demonstrated the oral-formulaic nature of Homeric Greek poetry. [Parry \(\[1932\] 1971, p. 328\)](#) argued that the nature of Homeric epics could be fully grasped only by recognizing that it was crafted using an oral, formulaic, and traditional diction, which exploited a vast repertoire of formulas, i.e., “a group of words which is regularly employed under the same metrical conditions to express a given essential idea” ([Parry \[1930\] 1971, p. 272](#)), and formulaic systems, i.e., “a group of phrases which have the same metrical value and which are enough alike in thought and words to leave no doubt that the poet who used them knew them not only as a single formula, but also as formulas of a certain type” ([Parry \[1930\] 1971, p. 275](#)). Formulaic systems were characterized by extension and thrift (or economy), meaning that for each task, the poets had just as many different-sized expressions as they needed (extension), and virtually nothing more (economy). Such ready-made phrases resulted from generations of poets exploiting them to express all the ideas needed in the poetry ([Lord 1953, p. 126](#)). Through field research on the then-thriving oral epic tradition in Yugoslavia, Parry and Lord confirmed this theory, showing that the art of composing epic songs was learned through a process similar to language acquisition, which required the poet to learn formulas, themes, and story patterns.

The exact definition of a formula and the metrical conditions under which formulas operate in Old English poetry have been matters of great debate. With his 1953 article, *Oral-Formulaic Character of Anglo-Saxon Narrative Poetry*, Magoun was the first to apply oral-formulaic theory to the study of Old English narrative poetry.<sup>1</sup> By analyzing the first twenty-five verses of *Beowulf*, Magoun showed that roughly seventy percent of the phrases in this poem appear elsewhere in the Old English poetic corpus and are, therefore, formulaic.

Although he relied on Parry’s definition of formula and formulaic system, in the same article, Magoun stressed some important differences between Old English and Homeric formulas. He argued that the degree of thrift that marks the use of formulas in Homeric verse was scarcely conceivable in the much more restrictive alliterative Germanic verse (cf. also [Fry 1967a, 1967b](#); [Niles 1983](#)). The principle of alliteration requires words beginning with the same sound to link half-lines across a caesura: this led the poets to vary elements of a formula according to their initial sound in order for them to fit the alliterative pattern. At the same time, variability between formulas was made possible by the accentual nature of Old English meter which, differently from Homeric and South Slavic moraic and syllabic

meters, allowed variability in the number of syllables or morae. As an example, Magoun (1953, p. 450) presents the expression *on gear-dagum*, which is part of a formulaic system, *x-dagum*, used to express the idea ‘long ago’. Occurring alone or with one or two preceding unstressed words, it makes up a complete C-verse. Substituting *gear* ‘of yore’ with *ar*, *eald*, or *orfyrn*, the formula remains unchanged in meaning and meter, while at the same time meeting the exigencies of alliteration thanks to the variation in the first element of the compound (whereas the second element, *dagum*, is not varied).

Drawing on Magoun’s work, Diamond (1959, p. 229) importantly observed that the notion of formula may change completely from one tradition to another because of the varying requirements of meter and syntax. Thus, Diamond was the first Old English scholar to acknowledge the importance of the dimension called “tradition-dependence” by Foley (1985, p. 68), a view that was supported by later scholars both within Homeric studies (Hainsworth 1964) and in Old English studies (Whallon 1965; Fry 1967a). Considering the variability that characterizes Old English formulas, Fry (1967a, p. 204) emphasized the importance of the formulaic system and suggested a new definition of formula as, “a group of words, one half-line in length, which shows evidence of being the direct product of a formulaic system”; similarly, Niles (1983, p. 126) suggested that, “a formula in Anglo-Saxon poetry may be considered a rhythmic-syntactic-semantic complex one half-line in length”.

During the 1960s, a significant development in the study of formulas involved an effort to categorize them based on their syntax rather than their semantic meaning. In the realm of Old English scholarship, O’Neil (1960) and Gattiker (1962) proposed that the syntactic structure formed the foundation of Old English poetic composition. They suggested that poets had the freedom to interchange words within the specified syntactic and metrical patterns. This theory was later applied by Cassidy (1965) and Green (1971), and in the context of Homeric studies, a similar approach was proposed by Russo (1963, 1966), who set out to catalogue syntactic-metrical schemas that underlie the surface realization of formulas. Although most scholars recognized that structural patterns too must have played a role in the poet’s compositional technique, many did not agree that they should all be equally called formulas.

Other studies focused on the fundamental concepts conveyed by formulas rather than their formal expression. Nagler’s (1967) study on formulas in Homeric Greek also influenced studies on Old English formulas (Olsen 1986, p. 567). Nagler contended that formulas should be viewed as cognitive templates with semantic content, with their surface form being merely an incidental manifestation. Similarly, Nagy (1974, 1976) and Watkins (1976) emphasized the fundamental ideas conveyed by formulas, arguing that the latter affect the meter and give rise to metrical patterns, rather than the other way around.

Despite the differences, all the studies mentioned above view formularity as a distinctive feature of poetry. The first attempt to equate formulas with bound expressions found in ordinary language is attributed to Kiparsky (1976), who also reconciled syntactic and semantic aspects of formulas. He distinguished between flexible idiomatic expressions (1)a, which are syntactically well behaved and have compositional semantics, and fixed idiomatic expressions, characterized by syntactic idiosyncrasies and non-compositional meaning (2)a. The former correspond to formulaic systems in Homeric poetry, such as (1)b, whereas the latter can be equated to straight Homeric formulas, such as (2)b:

- (1)
  - a. *The X-er, the Y-er*
  - b. *[[álgos ‘pain’]<sub>NP</sub> path- ‘feel’]<sub>VP</sub>*  
‘Feel . . . pain’
- (2)
  - a. *It takes one to know one.*
  - b. *êmos d’êrigéneia phánē rhododáktylos Êôs (Iliad 2×, Odyssey 20×)*  
‘As soon as early Dawn appeared, the rosy-fingered’

While he recognized the true essence of the formula in “the abstract bond” between, e.g., the Ancient Greek noun *álgos* ‘pain’ and the verbal root *path-* ‘suffer’ (1976, p. 86) in Homeric poetry (1)b, Kiparsky argued that formulas consist of syntactic constituents dominated by a single node, thus recognizing the importance of the syntactic layer into

the underlying structure of a formula. From his perspective, the primary distinction between fixed and flexible formulas lies in their memorization processes. Fixed formulas are memorized superficially, making them unable to undergo syntactic alterations. Conversely, flexible formulas are memorized at a deeper level, allowing for potential syntactic changes. Despite categorizing these types distinctly, Kiparsky (1976, p. 113) claimed that this is a gradient phenomenon, with fixed formulas and flexible formulas at the two poles of the continuum, and all kinds of gradations of flexibility in between. However, within the framework of Generative Grammar, he faced challenges in devising a model that could adequately account for both types of formulas. In the context of Old English studies, Fry (1981, p. 172) also noted that the most commonly accepted theory in the late 1970s assumed a generative model of memorized patterns rather than memorized phrases, which allowed enormous artistic freedom to the poetic tradition.

Recently, Bozzone (2014, 2024), Frog (2014a, 2014b, 2014c), and Pagán Cánovas and Antović (2016) have further developed the idea of Lord (1960, pp. 22, 36) that formulaic language is acquired in the same way as natural language, and thus functions similarly. They proposed examining the compositional techniques of Homeric (Bozzone 2014, 2024; Pagán Cánovas and Antović 2016), South Slavic (Pagán Cánovas and Antović 2016), and Old Norse (Frog 2014a, 2014b, 2014c) poetic traditions using Construction Grammar. The foundational premise of the latter theoretical framework (Fillmore et al. 1988; Goldberg 1995) is that “constructions”, defined as recurring pairings of specific forms with specific functions, serve as the fundamental units of language. Any linguistic expression that is not entirely compositional and requires memorization falls within the notion of construction. This includes idiomatic expressions as well as syntactic structures, since the latter convey meaning, albeit abstract, even prior to being “filled” with words. Construction Grammar rejects a strict division between lexicon and syntax and represents all grammatical knowledge consistently along the syntax–lexicon continuum (Goldberg 1995, pp. 6–7). Consequently, constructions exhibit a gradient along two dimensions: from substantive to schematic (e.g., the idiom *kick the bucket* vs. the transitive construction) and from atomic to complex (e.g., a single word vs. a syntactic construction). Constructions form a structured inventory of a speaker’s knowledge of the conventions of their language (Langacker 1987, pp. 63–76). This inventory is represented in terms of a taxonomic network of constructions, where taxonomic relations describe relationships of schematicity between two constructions (Croft and Cruse 2004, pp. 262–63). Take, for instance, (3), where the substantive idiom is an instance of the more schematic idiom *The X-er, the Y-er*:

- (3) a. [*The X-er, the Y-er*]
- |
- b. [*The bigger they grow, the harder they fall.*]

Bozzone, Frog, and Pagán Cánovas and Antović offer a new perspective by recognizing that, akin to idiomatic expressions, formulas are recurring pairings of specific forms with specific functions, thereby qualifying as constructions. As shown by Bozzone (2014, pp. 40–41), this understanding of formulas as constructions encompasses various degrees of flexibility, ranging from schematic (4)a to partially substantive (4)b, to substantive (4)c,<sup>2</sup> and accounts for the fact that formulas, similar to other constructions, constitute a structured inventory. Finally, defining formulas as constructions acknowledges that they are stored in the poet’s mind and are characterized not only by their formal attributes but also by their semantic, syntactic, and discursive functions (Bozzone 2014, pp. 42–67; cf. now Bozzone 2024, pp. 52–54).

- (4) a. [-]Pron.Obj [~~~~~]Part.Subj [~~~]V [~~~~~X]NP.Subj
- |
- b. [-]Pron.Obj [~~~~~]Part.Subj *proséphē* [~~~~~X]NP.Subj
- |
- c. *tòn d’apameibómenos proséphē pódas okùs Akhilleús (Iliad 12×)*
- ‘Answering him, swift-footed Achilles said’

By conducting a series of case studies, Bozzone illustrated how adopting a constructionist perspective in analyzing Homeric formulaic language can open fresh avenues of inquiry and significantly enrich our linguistic, philological, and literary comprehension of oral-formulaic texts. Additionally, she proposed extending this approach to the study of other poetic traditions, particularly those less rich in substantive formulas, and characterized instead by networks of lexically flexible constructions (Bozzone 2014, pp. 39, 225).

Since 2014, several attempts have been made to apply the constructionist approach to the study of formulaic language in other Indo-European poetic traditions. In a series of studies, Frog (2014a, 2014b, 2014c) introduced an approach to Old Norse kennings as constructions. Similar to constructions of everyday language, kennings found in skaldic poetry form a continuum from schematicity to fixity. According to Frog, on the schematic end of the continuum, a kenning can be represented as the equation:  $NP_1 + NP_2 = NP_3$  (cf. also below, Section 3), whereas on the fixed end of the continuum, we find crystalized expressions, which are reflected in the corpus as recurrent word combinations, such as *geira dynr* ‘din of spears’ for BATTLE (Frog 2014a, pp. 121, 123–24) and *bryn-þing* ‘armor-assembly’ for BATTLE (Frog 2014c, p. 293). In between, we have more or less conventionalized pairings of base-words and determiners, which tend to be representatives of conventional semantic categories; for instance, a BATTLE could be WEATHER OF WEAPONS, NOISE OF WEAPONS, NOISE OF ARMOR, etc. In the realization of such semantic associations, lexical variation is enabled by a rich vocabulary of semantically equivalent poetic terms. Thanks to this system of synonyms, in the semantic formula STORM OF SWORDS, the first element can be filled with any WEATHER-word, such as *él* ‘snow-shower’, *drífa* ‘a fall of snow, sleet’, *hregg* ‘rainstorm’, *regn* ‘rain’, etc. In the same way, the second element can be filled with other words for SWORD, such as *hjórr* ‘sword’, or even the proper name of a famous sword, such as *Laufi*, the name of the sword of the hero Þóðvarr bjarki (Frog 2014a, p. 106). The continuum described by Frog can be represented as follows:

- (5) a.  $NP_2\text{-Gen} + NP_1 = NP_3$   
 b. WEAPONS-gen + NOISE = BATTLE  
 c. *Eiríkr í dyn geira*  
 ‘Eiríkr, in the din of spears (i.e., in battle)’ (Hallar-Steinn *Rekstepja* 22.6)

Following Bozzone’s, Frog’s, and Pagán Cánovas and Antović’s proposals, Ginevra (2023, pp. 239–44) combined a constructionist approach with a historical-comparative perspective for the analysis of formulaic patterns attested in mythological texts in several ancient Indo-European languages, mainly focusing on Old Norse and Sanskrit material, but more briefly discussing texts in Ancient Greek and Old English (namely, *Exeter Riddles*, *Boethius*, and *Solomon and Saturn*) as well.

Another potential advancement highlighted by Bozzone (2014, p. 142) is the automation of the extraction process for constructional networks (see also Bozzone 2024, pp. 33–44, on the automatic extraction of collocational measures). In three recent papers, Biagetti (2023), Brigada Villa et al. (2023), and Biagetti (2024) adopted a quantitative approach to the study of formularity in the *Rigveda*, the most ancient extant text of Sanskrit literature, by exploiting morphosyntactically annotated texts from the *Vedic TreeBank* and semantic information from the *Sanskrit WordNet*. In particular, with a case study on the famous formula connected with the essential idea KILL A DRAGON (Watkins 1995), Biagetti (2023) proposed a methodology to detect lexically filled and more abstract instantiations of a formula. Brigada Villa et al. (2023) analyzed formulas including SPEECH verbs in the *Rigveda*, whereas Biagetti (2024) performed a co-varying collexeme analysis (Stefanowitsch and Gries 2005) of Rigvedic similes to detect recurrent, formulaic associations of parameter and standard of comparison. In a similar vein, Brigada Villa et al. (forthcoming) used the *Ancient Greek Dependency Treebank* enhanced with metrical annotation and semantic information from the *Ancient Greek WordNet* to extract formulas of COMMUNICATION and KILLING occurring in the *Iliad* under specific syntactic and metrical conditions.

## 2.2. Data Extraction

### 2.2.1. The York-Helsinki Parsed Corpus of Old English Poetry

The *York-Helsinki Parsed Corpus of Old English Poetry* (henceforth, YCOEP) is a 71,490-word syntactically annotated corpus, following the constituency format of the larger *Penn Parsed Corpora of Historical English* (Kroch 2020). It contains a subset of Old English poetry, divided into 14 text-files, some of which contain a single text (e.g., *cobeowul.psd* contains only *Beowulf*), whereas others contain samples of different texts, e.g., *conorthu.psd* contains *Cædmon's Hymn*, *Bede's Death Song*, *The Leiden Riddle*, *The Dream of the Rood*, and *The Ruthwell Cross*.<sup>3</sup> However, in the latter case, passages belonging to the different texts are not differentiated in their ID number, making the attribution of sentences to the right text not straightforward. Moreover, not every text has been added to the corpus in its entirety, and only some samples are present (as is the case of *Christ*). For this reason, we chose to concentrate on .psd files containing one single text in its entirety, namely *Beowulf*, *The Battle of Brunanburh*, and *Exodus*.

Despite the presence of syntactic annotation in the YCOEP, it could not be used to extract data. The constructions needed could not be simply retrieved looking for -PRN tags, i.e., marking appositive or parenthetical phrases (which are essential to the formulas analyzed in the present study): even though -PRN tags are linked to the noun they refer to through (XP \*ICH\*-n) tags, i.e., non wh- trace (scrambling and extraposition), the latter is not necessarily dependent on the verb, which is the main focus of this investigation, as verbs are the pivot of the constructions analyzed in Section 3. This is the main reason why we resorted to a CoNLL-U conversion of the YCOEP treebank, as explained in Section 2.2.2.

### 2.2.2. Conversion and Extraction

While for detecting and analyzing formulaic expressions in the Homeric poems and the Rigveda the researchers were able to leverage dependency treebanks for Ancient Greek and Vedic Sanskrit, a dependency treebank for Old English is still missing. Thus, before extracting the patterns of potential formulaic expressions, we had to convert the YCOEP constituency treebank into CoNLL-U format, an adaptation of the CoNLL-X format (Buchholz and Marsi 2006). To do so, we adopted the same methodology described by Brigada Villa and Giarda (2023), isolating the relevant tokens from the tags and parenthesis used to annotate the treebank, and converting each tag into a combination of parts-of-speech and morphological features, compliant with the guidelines of Universal Dependencies (UD; De Marneffe et al. 2021). The advantages of having the annotation structured in this format are manifold. Firstly, the CoNLL-U format facilitates a more user-friendly qualitative analysis by placing the text of the sentences above the annotation, as opposed to the original format, which does not report the entire sentence separated from the annotation. Furthermore, the adopted annotation scheme enables the retrieval of syntactic patterns that might underlie more schematic formulas.

Unfortunately, exploiting syntax was not possible at this stage: the conversion of the YCOEP only involved the parts-of-speech tags and the morphological features. There have been attempts to add the syntax to Old English syntactic resources formatted as the YCOEP, using a multilingual parser (Brigada Villa and Giarda 2023) or a rule-based approach (Brigada Villa and Giarda 2024), but the results of the automatic parsing were not satisfying enough to be employed in our analysis and the rule-based approach involved only the syntactic root. It is worth mentioning that these attempts were made on Old English prose, and the poetic nature of our texts would have had a negative impact on the models used on the prose. Hopefully, in the future, a conversion into the CoNLL-U format adhering to the UD guidelines, adapted for texts in Old English, as suggested by Martín Arista (2022), will be available to the community of scholars, and studies on Old English formulaicity will benefit from this.

We present now the queries we designed to extract the potential formulas from the sections of the YCOEP that make up our corpus. As shown in Figure 1, the only fields

available to be queried were the ID of a token, the word form, the UD part-of-speech tag, the part-of-speech tag employed in the original YCOEP, and the morphological features.

```
# sent_id = cobeowul,3.12.16
# text = ðam eafera was æfter cenned , geong in geardum , þone god sende
folce to frofre ;
1  ðam _      DET  D^D  Case=Dat  _ _ _ _
2  eafera _   NOUN N^N Case=Nom  _ _ _ _
3  was _      AUX  BEDI Mood=Ind|Tense=Past  _ _ _ _
4  æfter _    ADV  ADV^T AdvType=Tim  _ _ _ _
5  cenned _   VERB VBN Tense=Past|VerbForm=Part  _ _ _ _
6  , _       PUNCT , _ _ _ _
7  geong _   ADJ  ADJ^N Case=Nom|Degree=Pos  _ _ _ _
8  in _      ADP, SCONJ P _ _ _ _
9  geardum _ NOUN N^D Case=Dat  _ _ _ _
10 , _      PUNCT , _ _ _ _
11 þone _   DET  D^A Case=Acc  _ _ _ _
12 god _   PROPN NPR^N Case=Nom  _ _ _ _
13 sende _  VERB VBD Mood=Ind,Sub|Tense=Past  _ _ _ _
14 folce _  NOUN N^D Case=Dat  _ _ _ _
15 to _    ADP, SCONJ P _ _ _ _
16 frofre _ NOUN N^D Case=Dat  _ _ _ _
17 ; _    PUNCT . _ _ _ _
```

**Figure 1.** A sentence from the *Beowulf* section of our corpus formatted in CoNLL-U.

We decided to structure our query on the basis of the main pattern attested by the majority of instances of the formulaic “*mapelode system*”, as explained below in Section 3. Since we lacked syntactic annotation, we decided to focus on sequences of tokens: our approach started from the extraction of the patterns at whose center was a verb, looking at the five tokens that preceded and followed this central token. We filtered the results, adding some restrictions on the elements that had to appear before and after the verb for the pattern to be considered valid. To be considered for the analysis, a pattern had to include:

- a verb (tagged as VERB) or an auxiliary (tagged as AUX),
- an element X, being a noun or a pronoun (i.e., having the UD part-of-speech tag NOUN, PROPN, or PRON), preceding the verb in any position,
- an element Y in the same case of the element X and being a noun or a proper noun (i.e., having the UD part-of-speech tag NOUN or PROPN), following the verb in any position,
- an element Z, modifier of Y, i.e., a noun in the genitive case, following the verb and contiguous to Y.

In addition to that, in order to facilitate the manual analysis of the extracted patterns, we also extracted the order of the elements X, Y, and Z, and the order of their parts-of-speech, as they appeared in the patterns. This extraction yielded 336 passages, which were manually scrutinized, resulting in the identification of 108 valid occurrences of the pattern.

### 3. Results

We tested our methodology by analyzing the formulaic “*mapelode system*” (named after the preterite 3sg of the Old English verb *mapelian* ‘speak, discourse, make a speech’) of speech introductions in *Beowulf* (Cook 1926; Creed 1957, p. 527; Mertens-Fonck 1978; Lord 1991, pp. 147–69; cf. Pàroli 1975, p. 182) and by looking for lexical, syntactic, and semantic parallels for this system in our corpus. We focused on the main pattern [PROP<sub>N</sub><sub>X</sub> *mapelode* [NOUN PROP<sub>N</sub>.Gen or PROP<sub>N</sub>.Gen NOUN]<sub>X</sub>], attested by the majority of the system’s occurrences (15× of 26), i.e., by the following passages (in what follows, translations of *Beowulf* and *Exodus* are adapted from (Fulk 2010) and (Hostetter 2024), respectively):

- (6) *Hroðgar maþelode, helm Scyldinga:*  
'Hrothgar made a speech, helm of the Scyldings:'  
(*Beo.* 371, *cobeowul*,13.371.307)
- (7) *Hroðgar maþelode, helm Scyldinga:*  
'Hrothgar made a speech, helm of the Scyldings:'  
(*Beo.* 456, *cobeowul*,16.456.381)
- (8) *Unferð maþelode, Ecglafes bearn,*  
'Unferth made a speech, Ecglaf's offspring,'  
(*Beo.* 499, *cobeowul*,17.499.421)
- (9) *Beowulf maþelode, bearn Ecgþeowes:*  
'Beowulf made a speech, the offspring of Ecgtheo:'  
(*Beo.* 529, *cobeowul*,18.529.446)
- (10) *Beowulf maþelode, bearn Ecgþeowes:*  
'Beowulf made a speech, offspring of Ecgtheo:'  
(*Beo.* 631, *cobeowul*,21.628.533)
- (11) *Beowulf maþelode, bearn Ecþeowes:*  
'Beowulf made a speech, the offspring of Ecgtheo:'  
(*Beo.* 957, *cobeowul*,30.957.801)
- (12) *Hroðgar maþelode, helm Scyldinga:*  
'Hrothgar made a speech, helm of the Scyldings:'  
(*Beo.* 1321, *cobeowul*,41.1321.1093)
- (13) *Beowulf maþelode, bearn Ecgþeowes:*  
'Beowulf made a speech, Ecgtheo's offspring:'  
(*Beo.* 1383, *cobeowul*,43.1383.1143)
- (14) *Beowulf maðelode, bearn Ecgþeowes:*  
'Beowulf made a speech, offspring of Ecgtheo:'  
(*Beo.* 1473, *cobeowul*,46.1473.1215)
- (15) *Beowulf maþelode, bearn Ecgþeowes:*  
'Beowulf made a speech, Ecgtheo's offspring:'  
(*Beo.* 1651, *cobeowul*,51.1651.1366)
- (16) *Beowulf maþelode, bearn Ecgþeowes:*  
'Beowulf made a speech, Ecgtheo's offspring:'  
(*Beo.* 1817, *cobeowul*,56.1817.1508)
- (17) *Biowulf maðelode, bearn Ecgðioes:*  
'Beowulf made a speech, Ecgtheo's offspring:'  
(*Beo.* 1999, *cobeowul*,61.1999.1637)
- (18) *Biowulf maþelade, bearn Ecgðeowes:*  
'Beowulf spoke, Ecgtheo's offspring:'  
(*Beo.* 2425, *cobeowul*,75.2425.1976)
- (19) *Wiglaf maðelode, Weohstanes sunu [ . . . ]*  
'Wiglaf made a speech, Wihstan's son'  
(*Beo.* 2862, *cobeowul*,88.2862.2328)
- (20) *Wiglaf maðelode, Wihstanes sunu:*  
'Wiglaf made a speech, Wihstan's son:'  
(*Beo.* 3076, *cobeowul*,94.3076.2471)

### 3.1. "Argument Variated by Kenning" Construction

The *maþelode* system's main pattern instantiates (among others) an "Argument Variated by Kenning" construction, which in turn combines two constructions, both of which reflect poetic devices that are very well attested in both the Old English and other early Germanic traditions (henceforth, each example will be preceded by the pattern it instantiates, as it was extracted by our automatic query):

- The construction [NOUN/PRON/PROPN<sub>X</sub> ( . . . ) [ . . . ]<sub>X</sub>], by which a noun (or pronoun or proper name) evoking a concept X is followed (immediately or not) by a word or a phrase that appositionally refers to the same concept, X. For instance, in (21), the word *winreced* 'winehouse' is immediately followed by the phrase *goldsele gumena* 'golden hall of men', and both items refer to the same concept, HALL. This pattern reflects a broader (not restricted to nouns) and well-known poetic device of early Germanic



poetics, widely attested in, e.g., Old English (Campbell 1962; Robinson 1985) and Old Norse (McTurk 1997) poetic texts, and variously referred to as either “parallelism” (e.g., Campbell 1962), “appositive style” (Robinson 1985), or “variation” (e.g., Paetzel 1913; McTurk 1997). The latter term shall be used in the remainder of this paper.

- [winreced.NOUN.Acc<sub>X</sub> [goldsele.NOUN.Acc gumena.NOUN.Gen]<sub>X</sub>]
- (21) [...] *to þæs þe he winreced / goldsele gumena gearwost wisse* [...]  
 ‘to where he well knew the **winehouse** was, **the golden hall of men**’  
 (Beo. 714b–715)

- The construction [NOUN NOUN/PROPN.Gen]<sub>X</sub> or [NOUN/PROPN.Gen NOUN]<sub>X</sub>, by which a single concept, X, which may usually be expressed with a single noun (or proper name), is instead evoked by means of a bipartite noun phrase, consisting of a noun that is modified by another noun (or proper name) in the genitive case. For instance, in (22), the noun phrase *sinces brytta* ‘dispenser of valuables’ is used to refer to the concept LORD, in place of a simple noun, such as *dryhten* ‘lord’. This pattern reflects the famous poetic device called “kenning” (from Old Norse *kenning* ‘knowledge, recognition’), a widespread feature of early Germanic poetic traditions, such as the Old English (see, e.g., Marquardt 1938) and the Old Norse (Meissner 1921; see also above, Section 2.1) ones, but also attested in several other Indo-European languages (e.g., Krause [1930] 2014, p. 578ff; Wærn 1951; Campanile 1977, p. 108ff; Watkins 1995, p. 44ff). In what follows, we use the term “kenning” according to Watkins’ (1995, p. 44) broad definition as, “a bipartite figure of two nouns in a non-copulative, typically genitival grammatical relation (A of B) or in composition (B-A) which together make reference to, ‘signify’, a third notion C”.<sup>4</sup>

- [sinces.NOUN.Gen brytta.NOUN.Nom]<sub>LORD</sub>
- (22) [...] *þæt ðu geare cunne, **sinces brytta*** [...]  
 “so that you will know for certain, **dispenser of valuables [i.e., lord]**”  
 (Beo. 2070b–2071a)

In the *mabelode* system’s main pattern, these two constructions are combined with a verb’s argument-structure construction [X V (X.2) (X.3)], comprising a verb and its argument(s), X (and eventually X.2 and X.3). The resulting complex pattern may be represented as follows, with two possible word orders for the modifier in the genitive case (for the sake of clarity, in what follows, we will always use the first variant as the default order):<sup>5</sup>

- [NOUN/PRON/PROPN<sub>X</sub> (...) VERB (...) [NOUN/PROPN.Gen NOUN]<sub>X</sub>]
- [NOUN/PRON/PROPN<sub>X</sub> (...) VERB (...) [NOUN NOUN/PROPN.Gen]<sub>X</sub>]

According to this generic pattern, which we may refer to as the “Argument Variated by Kenning” construction, an argument (a noun or pronoun or proper name) evoking a concept, X, is followed (immediately or not) by the verb it belongs to, which is then followed (immediately or not) by a kenning that appositionally refers to the same concept, X. Our query captured 108 valid occurrences of this pattern in our corpus, many of which are not directly relevant to our investigation, such as those with the variated element in the dative (23) or genitive case (24):

- [feorhwunde.NOUN.Dat hleat.VERB sweordes.NOUN.Gen swengum.NOUN.Dat]
- (23) [...] *feorhwunde hleat sweordes swengum* [...]  
 ‘a mortal wound he earned by lot, sword-strokes,’  
 (Beo. 2385b–2386a, cobeowul,74.2384.1940)

- [lissa.NOUN.Gen bidde.VERB sigora.NOUN.Gen gesynto.NOUN.Gen]
- (24) [...] *and eow liffreaan lissa bidde, sigora gesynto*, [...]  
 ‘I ask for you the grace of the Lord of Life, the success of victory’  
 (Ex. 271a–272a, coexodus,98.269.221)

The latter example (24) in the genitive, however, also instantiates a further sub-construction that is relevant to the *māpelode* system's main pattern as well, namely:

- [NOUN/PRON/PROP<sub>N</sub><sub>X</sub> (. . .) SPEECH.VERB (...) [NOUN/PROP<sub>N</sub><sub>X</sub>.Gen NOUN]<sub>X</sub>]

Within this pattern, an argument (not necessarily the subject) of a SPEECH verb, such as *māpelian* 'speak, discourse, make a speech', is variated by means of a kenning. This is the case of the *māpelode* system's main pattern, of course, but also of *biddan* 'ask, request' in (24) above and (25) below, *frinan* 'ask, inquire' in (26), and *hæl abead* 'wished good luck, saluted' in (27):

- [brego.NOUN.Nom (. . .) biddan.VERB eodor.NOUN.Nom Scyldinga.PROPN.Gen]  
 (25) [. . .] *brego Beorhtdena, biddan wille, eodor Scyldinga, [. . .]*  
 '[Now I] want to ask you, sovereign of Bright-Danes, defense of the Scyldings, [one request,]'  
 (*Beo.* 427–428a, *cobeowul*,15.426.358)

- [wine.NOUN.Acc (...) frinan.VERB beaga.NOUN.Gen bryttan.NOUN.Acc]  
 (26) *Ic þæs wine Deniga, frean Scildinga, frinan wille, beaga bryttan, [. . .]*  
 'About that I will ask the friend of the Danes, lord of the Scyldings, the bestower of rings,'  
 (*Beo.* 350b–352a, *cobeowul*,13.348.290)

- [hæl.NOUN.Acc abead.VERB winærnes.NOUN.Gen geweald.NOUN.Acc]  
 (27) *ond him hæl abead, winærnes geweald,*  
 'and wished him luck, domination of the wine-building,'  
 (*Beo.* 653b–654a, *cobeowul*,22.652.547)

By also including in this category verbs such as *beodan* 'offer, announce', *bebeodan* 'command, order', *gehatan* 'call, command, promise', and *swerian* 'swear' (which are often treated together with more prototypical speech verbs, see, e.g., [Ogura 1996](#), p. 41), we found 26 occurrences of this "SPEECH verb" sub-pattern in our corpus (11 if the *māpelode* system is excluded).

### 3.2. "ANIMATE Subject Variated by Kenning" Construction

In examples (23)–(24) and (26)–(27) above, the variated argument occurs in the dative, genitive, and accusative cases. The occurrences of the *māpelode* system's main pattern always attest the variated argument in the nominative case, however, and together with (25) above, may thus be further analyzed as instances of the following sub-pattern:

- [NOUN/PRON/PROP<sub>N</sub><sub>X</sub>.Nom<sub>X</sub> (. . .) SPEECH.VERB (...) [NOUN/PROP<sub>N</sub><sub>X</sub>.Gen NOUN.Nom]<sub>X</sub>]

Beside the 15 occurrences of the *māpelode* system's main pattern, all of which involve a variated proper name in the nominative, and example (25) above, where the variated element is a common noun, the same pattern is also attested four times (two times in the same passage) with a variated pronoun in the nominative:

- [he.PRON.Nom (. . .) bæd (. . .) wine.NOUN.Nom Scyldinga.PROPN.Gen]  
 (28) [. . .] *swa he selfa bæd, þenden wordum weold wine Scyldinga [. . .]*  
 'as he himself had requested while he had command of words, the friend of the Scyldings, [. . .]'  
 (*Beo.* 29b–30, *cobeowul*,4.28.27)

- [he.PRON.Nom (. . .) gehet.VERB (. . .) engla.NOUN.Gen drihten.PROPN.Nom]  
 (29) [. . .] *he lange gehet mid aðsware, engla drihten, [. . .]*  
 '[He wishes now to accomplish what] he promised us long ago with an oath-swearing, the Lord of Angels,'  
 (*Ex.* 558b–559, *coexodus*,107.557.462)

[He.PRON.Nom (...) swereð. VERB engla.NOUN.Gen þeoden.NOUN.Nom]  
 (30) *He að swereð, engla þeoden, [...]*  
 ‘He swears an oath, the Prince of Angels, [the Wielder of the World’s Way,]’  
 (Ex. 432, coexodus,103.432.344)

[He.PRON.Nom (...) swereð.VERB (...) wyrda.NOUN.Gen waldend.NOUN.Nom]  
 (31) *He að swereð, [...] wyrda waldend*  
 ‘He swears an oath, [the Prince of Angels,] the Wielder of the World’s Way,’  
 (Ex. 432–433b, coexodus,103.432.344)

As further shown in the following sections, the occurrences of our SPEECH-verb pattern display various similarities, with an almost identical pattern attested by GIVING verbs in our corpus:

- [NOUN/PRON/PROPN.Nom<sub>X</sub> (...) GIVING.VERB (...) [NOUN/PROPN.Gen NOUN.Nom]<sub>X</sub>]

The latter pattern is attested seven times in our corpus: with the verbs *gifan* ‘give’ in (32)–(33), *sellan* ‘give’ in (34), *gesellan* ‘give, make a present of’ in (35)–(36), and *unnan* ‘grant’ in (37). It is also notably attested by their converse or relational antonym *gefon* ‘seize, grasp’ in (38). This may be due to analogical influence between antonymic verbs; in any case, verbs of GIVING and of TAKING are sometimes discussed together by specialists of Old English linguistics, as well (e.g., [Ogura 1996](#), p. 28). Therefore, in what follows, we subsume this occurrence of *gefon* ‘seize, grasp’ within the GIVING-verb pattern. As with SPEECH verbs, the GIVING-verb pattern is also attested with nouns, pronouns, and proper names as the varied element:

[he.PRON.Nom (...) geaf.VERB sunu.NOUN.Nom Healfdenes.PROPN.Gen]  
 (32) *ac he me maðmas geaf, sunu Healfdenes, [...]*  
 ‘but he gave me treasures, Healfdene’s son,’  
 (Beo. 2146b–2147a, cobeowul,66.2145.1752)

[Wealhðeo.PROPN.Nom geaf.VERB ðeodnes.NOUN.Gen dohtor.NOUN.Nom]  
 (33) *[...] ðone þe him Wealhðeo geaf, ðeodnes dohtor, [...]*  
 ‘[stately ornament,] which Wealhtheo had given him, a lord’s daughter,’  
 (Beo. 2173b–2174a, cobeowul,67.2172.1774)

[god.PROPN.Nom sealde.VERB wuldres.NOUN.Gen waldend.NOUN.Nom]  
 (34) *þæs þe him ær god sealde, wuldres waldend, weorðmynda dæl.*  
 ‘what God had granted him, wielder of glory, his share of honors.’  
 (Beo. 1751b–1752, cobeowul,54.1745.1447)

[hleo.NOUN.Nom (...) gesealde.VERB (...) maga/mago.NOUN.Nom Healfdenes.PROPN.Gen]  
 (35) *Ða git him eorla hleo inne gesealde, mago Healfdenes, maþmas XII;*  
 ‘Then the shelter of men, gave him twelve further treasures indoors, Healfdene’s son;’  
 (Beo. 1866–1867, cobeowul,57.1866.1538)  
 (36) *ac me eorla hleo eft gesealde maðma menigeo, maga Healfdenes.*  
 ‘but the shelter of men gave me a multitude of treasures, Healfdene’s son,’  
 (Beo. 2142–2143, cobeowul,66.2141.1747)

[god.PROPN.Nom uðe.VERB sigora.NOUN.Gen waldend.NOUN.Nom]  
 (37) *hwæðre him god uðe, sigora waldend, [...]*  
 ‘yet God granted him, wielder of victories,’  
 (Beo. 2874b–2875a, cobeowul,88.2873.2333)

[He.PRON.Nom gefeng.VERB (...) freca.NOUN.Nom Scyldinga.PROPN.Gen]  
 (38) *He gefeng þa fetelhilt, freca Scyldinga [...]*  
 ‘He seized the linked hilt then, champion of the Scyldings,’  
 (Beo. 1563, cobeowul,48.1563.1290)

With the sole exception of (25), where the nominative *brego* is used absolutely in its vocative function, in all other occurrences that involve a verb of SPEECH (19×) or GIVING (7×) and a varied element in the nominative, the latter is always the subject of the verb and always refers to an ANIMATE entity (either a HUMAN being or the Christian God). We may thus represent this “ANIMATE Subject Varied by Kenning” construction of SPEECH and GIVING verbs, attested 26 times in our corpus, as follows:

- [ANIMATE.NOUN/PRON/PROPN.Nom<sub>X</sub> ( . . . ) SPEECH/GIVING.VERB (...) [NOUN/PROPN.Gen. NOUN.Nom]<sub>X</sub>]

The two patterns discussed in the previous section and in the present one underlie all fifteen occurrences of the *māpelode* system’s main pattern. Each of the following two sections instead discuss a sub-pattern that is attested only by some instances of the latter.

### 3.3. “HUMAN Subject Varied by CHILD-Kenning” Construction

Within the great majority (12×) of occurrences of the *māpelode* system’s main pattern, the HUMAN subject X of the verb is varied by means of a patronymic CHILD-kenning construction [NOUN/PROPN.Gen CHILD.NOUN]<sub>X</sub>, i.e., a noun phrase with a noun or a proper name in the genitive case that modifies a noun evoking the concept CHILD, namely, *bearn* ‘child’ (one time with *Unferð* and nine times with variants of *Beowulf*), as in (39)–(40), or *sunu* ‘son’ (2×, always with *Wiglaf*), as in (41):

- [Unferð.PROPN.Nom māpelode.VERB Ecglafes.PROPN.Gen bearn.NOUN.Nom]
- (39) *Unferð māpelode, Ecglafes bearn, [ . . . ]*  
 ‘Unferth made a speech, Ecglaf’s offspring,’  
 (*Beo.* 499, *cobeowul*,17.499.421)

- [Beowulf.PROPN.Nom māpelode.VERB bearn.NOUN.Nom Ecgþeowes.PROPN.Gen]
- (40) *Beowulf māpelode, bearn Ecgþeowes:*  
 ‘Beowulf made a speech, the offspring of Ecgtheo:’  
 (*Beo.* 529, *cobeowul*,18.529.446)

- [Wiglaf.PROPN.Nom māðelode.VERB Weohstanes.PROPN.Gen sunu.NOUN.Nom]
- (41) *Wiglaf māðelode, Weohstanes sunu [ . . . ]*  
 ‘Wiglaf made a speech, Wihstan’s son’  
 (*Beo.* 1862, *cobeowul*,88.2862.2328)

While the same pattern is not attested with other SPEECH verbs in our corpus, it occurs four times with GIVING verbs, namely, in the same passages already listed above as (32)–(33) and (35)–(36) and repeated below as (42)–(45). In these occurrences, the verb’s subject is either a noun, a pronoun, or a proper name, and the nouns used to evoke the meaning CHILD are *sunu* ‘son’, as in (42), *dohtor* ‘daughter’, as in (43), and *maga/mago* ‘son’, as in (44)–(45):

- [he.PRON.Nom ( . . . ) geaf.VERB sunu.NOUN.Nom Healfdenes.PROPN.Gen]
- (42) *ac he me māðmas geaf, sunu Healfdenes, [ . . . ]*  
 ‘but he gave me treasures, Healfdene’s son;’  
 (*Beo.* 2146b–2147a, *cobeowul*,66.2145.1752)

- [Wealhðeo.PROPN.Nom geaf.VERB dohtor.NOUN.Nom ðeodnes.NOUN.Gen]
- (43) *[ . . . ] ðone þe him Wealhðeo geaf, ðeodnes dohtor, [ . . . ]*  
 ‘[stately ornament,] which Wealhtheo had given him, a lord’s daughter,’  
 (*Beo.* 2173b–2174a, *cobeowul*,67.2172.1774)

- [hleo.NOUN.Nom (. . .) gesealde.VERB (. . .) maga/mago.NOUN.Nom  
Healfdenes.PROPN.Gen]
- (44) *Ɔa git him eorla hleo inne gesealde, mago Healfdenes, maþmas XII;*  
'Then the shelter of men, gave him twelve further treasures indoors, Healfdene's son,'  
(*Beo.* 1866–1867, cobeowul,57.1866.1538)
- (45) *ac me eorla hleo eft gesealde maþma menigeo, maga Healfdenes.*  
'but the shelter of men gave me a multitude of treasures, Healfdene's son,'  
(*Beo.* 2142–2143, cobeowul,66.2141.1747)

While this pattern most often occurs within the *mabelode* system and with GIVING verbs (16×), it is also attested eleven times in our corpus with various other semantically diverse verbs. In these occurrences, the concept CHILD is most often expressed by *sunu* 'son' (6×), as in (46) and (47), but other nouns are used as well, namely, *bearn* 'child' in (48), *byre* 'son' in (49), and *eafera* 'offspring, son, descendant' in (50). The noun *mæg* 'kinsman, blood-relative' is used two times in place of a word for CHILD, as in (51), a variant that is both structurally and semantically similar to the other passages: we thus subsume it within the same CHILD-kenning pattern:

- [Wiglaf.PROPN.Nom (. . .) haten.VERB Weoxstanes.PROPN.Gen sunu.NOUN.Nom]
- (46) *Wiglaf wæs haten Weoxstanes sunu, [. . .]*  
'He was called Wiglaf, Wihstan's son,'  
(*Beo.* 2602–2603a, cobeowul,80.2602.2134)
- [flota.NOUN.Nom modgade.VERB Rubenes.PROPN.Gen sunu.NOUN.Nom]
- (47) *æfter þære fyrde flota modgade, Rubenes sunu.*  
'After that force boldly followed that sailor, the son of Reuben.'  
(*Ex.* 331–332a, coexodus,100.331.271)
- [Hreþric.PROPN.Nom (. . .) geþingeð.VERB þeodnes.NOUN.Gen bearn.NOUN.Nom]
- (48) *[. . .] Hreþric to hofum Geata geþingeð, þeodnes bearn [. . .]*  
'[Then if] Hrethric determines to go to the court of the Geats, the lord's child,'  
(*Beo.* 1836–1837a, cobeowul,56.1836.1520)
- [Wiglaf.PROPN.Nom siteð.VERB (. . .) byre.NOUN.Nom Wihstanes.PROPN.Gen]
- (49) *Wiglaf siteð ofer Biowulfe, byre Wihstanes, [. . .]*  
'Wiglaf sits over Beowulf, Wihstan's son,'  
(*Beo.* 2906b–2907, cobeowul,90.2906.2357)
- [Beowulf.PROPN.Nom wæs.AUX (. . .) Scyldes.PROPN.Gen eafera.NOUN.Nom]
- (50) *Beowulf wæs brene blæd wide sprang, Scyldes eafera Scedelandum in.*  
'Beowulf was renowned—his fame sprang wide—the heir of Scyld, in Scania.'  
(*Beo.* 18–19, cobeowul,3.16.20)
- [Eomer.PROPN.Nom woc.VERB (. . .) Hemminges.PROPN.Gen mæg.NOUN.Nom]
- (51) *Eomer woc hæleðum to helpe, Hemminges mæg*  
'from him arose Eomer as a help to heroes, Hemming's kinsman,'  
(*Beo.* 1960b–1961, cobeowul,60.1957.1606)

To sum up, we may identify a further, more semantically specified construction, particularly well attested within the *mabelode* system and with GIVING verbs, but also occurring with other semantic verb classes, namely:

- [HUMAN.NOUN/PRON/PROPN.Nom<sub>X</sub> (. . .) (SPEECH/GIVING.)VERB (...)] [NOUN/PROPN.Gen. CHILD.NOUN.Nom]<sub>X</sub>

Within this pattern, which we may refer to as the "HUMAN Subject Variated by CHILD-Kenning" construction, a subject (a noun or pronoun or proper name) referring to a HUMAN being is followed (immediately or not) by the verb it belongs to (most often a SPEECH or GIVING verb), which is then followed (immediately or not) by a patronymic CHILD-kenning referring to the same HUMAN being. We were able to retrieve 27 occurrences of this construction in our corpus (fifteen if we exclude the *mabelode* system).

### 3.4. “ANIMATE Argument Varied by LORD-Kenning” Construction

The constructions discussed in the previous sections together account for twelve of the fifteen attestations of the *mapelode* system’s main pattern (80%). The remaining three occurrences, listed in (52), are all identical instances of the same highly formulaic pattern:

- [Hroðgar.PROPN.Nom mapelode.VERB helm.NOUN.Nom Scyldinga.PROPN.Gen]  
 (52) *Hroðgar mapelode, helm Scyldinga:*  
 ‘Hrothgar made a speech, helm of the Scyldings’  
 (*Beo.* 371, *cobeowul*,13.371.307 = *Beo.* 456, *cobeowul*,16.456.381 = *Beo.* 1321b,  
*cobeowul*,41.1321.1093)

These three passages may be analyzed as instances of a construction continuum that has several occurrences in our corpus. In all of the latter, a noun (or proper name or pronoun) referring to an ANIMATE X is varied by means of a LORD-kenning construction [NOUN/PROPN.Gen LORD.NOUN]<sub>X</sub>, i.e., a noun phrase within which a noun or a proper name in the genitive case modifies another noun that either literally means LORD, such as *dryhten* ‘lord, prince’ in (53) and *þeoden* ‘chief, lord, prince, king’ in (54), or is figuratively used in this sense, such as *helm* ‘protection, cover, helmet’ in (52) and *wine* ‘friend’ in (53). In the *mapelode* system’s main pattern and in the following four examples (53)–(56), the element varied by means of a LORD-kenning is always the subject of a SPEECH verb:

- [he.PRON.Nom gehet.VERB engla.NOUN.Gen drihten.PROPN.Nom]  
 (53) *[. . .] he lange gehet mid aðsware, engla drihten, [. . .]*  
 ‘[He wishes now to accomplish what] he promised us long ago with an oath-swearing, the Lord of Angels,’  
 (*Ex.* 558b–559, *coexodus*,107.557.462)
- [He.PRON.Nom swereð.VERB engla.NOUN.Gen þeoden.NOUN.Nom]  
 (54) *He að swereð, engla þeoden, [. . .]*  
 ‘He swears an oath, the Prince of Angels, [the Wielder of the World’s Way],’  
 (*Ex.* 432, *coexodus*,103.432.344)
- [He.PRON.Nom swereð.VERB wyrda.NOUN.Gen waldend.NOUN.Nom]  
 (55) *að swereð, [. . .] wyrda waldend*  
 ‘He swears an oath, [the Prince of Angels,] the Wielder of the World’s Way,’  
 (*Ex.* 432, *coexodus*,103.432.344)
- [he.PRON.Nom bæd wine.NOUN.Nom Scyldinga.PROPN.Gen]  
 (56) *[. . .] swa he selfa bæd, þenden wordum weold wine Scyldinga [. . .]*  
 ‘as he himself had requested while he had command of words, the friend of the Scyldings,’  
 (*Beo.* 29b–30, *cobeowul*,4.28.27)

This pattern is attested eight times with SPEECH verbs in our corpus. Again, the same pattern is also attested three times with GIVING verbs—two times with the same noun *waldend* ‘ruler, lord’ that is also attested with the SPEECH verb *swerian* ‘swear’ in (55): this correspondence corroborates the impression of similarity in the behaviors of SPEECH and GIVING verbs, already noted above in the previous sections and discussed in more detail below (in Section 4):

[god.PROPN.Nom sealde.VERB wuldres.NOUN.Gen waldend.NOUN.Nom]  
 (57) *þæs þe him ær god sealde, wuldres waldend, weorðmynda dæl.*  
 ‘what God had granted him, wielder of glory, his share of honors.’  
 (Beo. 1751b–1752, cobeowul,54.1745.1447)

[god.PROPN.Nom uðe.VERB sigora.NOUN.Gen waldend.NOUN.Nom]  
 (58) *hwæðre him god uðe, sigora waldend [ . . . ]*  
 ‘yet God granted him, wielder of victories,’  
 (Beo. 2874b–2875a, cobeowul,88.2873.2333)

[He.PROPN.Nom gefeng.VERB ( . . . ) freca.NOUN.Nom Scyldinga.PROPN.Gen]  
 (59) *He gefeng þa fetelhilt, freca Scyldinga [ . . . ]*  
 ‘He seized the linked hilt then, champion of the Scyldings,’  
 (Beo. 1563, cobeowul,48.1563.1290)

The *mabelode* system’s occurrences in (52) and the passages with other SPEECH and GIVING verbs in (53)–(59) may thus all be analyzed as instances of the same construction, which is attested 11 times within our corpus and may be represented as follows:

- [ANIMATE.NOUN/PRON/PROPN.Nom<sub>X</sub> SPEECH/GIVING.VERB [NOUN/PROPN.Gen LORD.NOUN.Nom]<sub>X</sub>].

However, this construction inherits its features from two more schematic constructions that underlie several further passages. First, a more generic construction:

- [ANIMATE.NOUN/PRON/PROPN.Nom<sub>X</sub> VERB [NOUN/PROPN.Gen LORD.NOUN.Nom]<sub>X</sub>]

In addition to the examples above, this pattern is also attested thirteen times with verbs that do not have SPEECH or GIVING semantics, such as *ondrædan* ‘dread, fear’ in (60), *onswifan* ‘swing, turn’ in (61), or *aðencan* ‘think, intend’ in (62). In (60) and (61), the same LORD-words, *þeoden* and *dryhten*, are employed, as in (54) and (53) above, respectively, whereas in (62), the word *hyrde* ‘guardian, keeper’ is used in a figurative sense, LORD:

[þu.PROPN.Nom ( . . . ) ondrædan.VERB ( . . . ) þeoden.NOUN.Nom Scyldinga.PROPN.Gen]  
 (60) *[ . . . ] þu him ondrædan ne þearft, þeoden Scyldinga, [ . . . ]*  
 ‘you need not dread mortal danger to them, lord of Scyldings,’  
 (Beo. 1674b–1675a, cobeowul,51.1671.1385)

[Biorn.NOUN.Nom ( . . . ) onswaf.VERB ( . . . ) Geata.PROPN.Gen dryhten.NOUN.Nom]  
 (61) *Biorn under beorge bordrand onswaf wið ðam gryregieste, Geata dryhten*  
 ‘Below the barrow, the man swung his shield to face the dreadful stranger, lord of Geats,’  
 (Beo. 2559–2560, cobeowul,79.2559.2095)

[hlaford.NOUN.Nom ( . . . ) aðohte.VERB ( . . . ) folces.NOUN.Gen hyrde.NOUN.Nom]  
 (62) *[ . . . ] hlaford us þis ellenweorc aðohte ana to gefremmanne, folces hyrde*  
 ‘this lord intended to perform for us this work of valor alone, custodian of the nation,’  
 (Beo. 2642b–2644, cobeowul,82.2638.2164)

On the other hand, a similar pattern is also attested eight times in our corpus, with the varied element either in the nominative case in vocative function (once), or in other cases, namely, the accusative (five times) and the dative (two times). Both the vocative–nominative and the accusative patterns are attested with SPEECH verbs, namely, *biddan* ‘ask, request’ in (25) above, repeated below in (63), and *frinan* ‘ask, inquire’ in (26) above, repeated below in (64). The accusative and dative patterns, however, are also attested with several further verbs, such as *witan* ‘know’ in (65) and *herian* ‘praise, honor’ in (66). This allows for the identification of an even more generic “ANIMATE Argument Varied by LORD-Kenning” construction, attested 31 times in our corpus and underlying all the examples discussed in this section, by which an ANIMATE argument (in any case) precedes its corresponding verb, which in turn precedes a LORD-kenning referring to the same ANIMATE:

- [ANIMATE.NOUN/PRON/PROPN<sub>X</sub> VERB [NOUN/PROPN.Gen LORD.NOUN]<sub>X</sub>]

[brego.NOUN.Nom (...) biddan.VERB (...) eodor.NOUN.Nom Scyldinga.PROPN.Gen]  
 (63) [...] *brego Beorhtdena, biddan wille, eodor Scyldinga, [...]*  
 ‘[Now I] want to ask you, sovereign of Bright-Danes, defense of the Scyldings,’  
 (*Beo.* 427–428a, cobeowul,15.426.358)

[wine.NOUN.Acc (...) frinan.VERB (...) beaga.NOUN.Gen bryttan.NOUN.Acc]  
 (64) *Ic þæs wine Deniga, frean Scildinga, frinan wille, beaga bryttan, [...]*  
 ‘About that I will ask the friend of the Danes, lord of the Scyldings, the bestower of rings,’  
 (*Beo.* 350b–352a, cobeowul,13.348.290)

[Higelac.PROPN.Acc wat.VERB Geata.PROPN.Gen dryhten.NOUN.Acc]  
 (65) *Ic on Higelac wat, Geata dryhten [...]*  
 ‘I am confident of Hygelac, lord of Geats,’  
 (*Beo.* 1830b–1831a, cobeowul,56.1830.1518)

[helm.NOUN.Acc herian.VERB wuldres.NOUN.Gen waldend.NOUN.Acc]  
 (66) *ne hie huru heofena helm herian ne cuþon, wuldres waldend.*  
 ‘nor did they even know to praise heaven’s helm, the master of magnificence.’  
 (*Beo.* 182–183a, cobeowul,8.178.147)

#### 4. Discussion

Scholars have long noted the peculiar features of the *mápelode* system of speech introductions (see, e.g., McConchie 2000, p. 59), even going as far as suggesting that some peculiarities of this system may stem from the influence of a foreign tradition (the Homeric one, according to Cook 1926, p. 6). Our results, however, show that the *mápelode* system’s main pattern rather belongs to a very well-attested construction continuum, which is deeply structured by the widespread Old English (and ultimately Germanic) poetic devices of variation and kenning. This continuum ranges from more fixed repetitions that exclusively involve the verb *mápelian* to more schematic patterns that are also attested by other SPEECH verbs, by verbs of GIVING, as well as by a number of further verbs of various semantic types. The occurrences (tokens) of this continuum may be represented as in Table 1.

**Table 1.** The construction continuum of the *mápelode* system’s main pattern.

Argument Variated by Kenning (Basic Query)	<i>mápelode</i> (15×)	SPEECH VERB (26×)	GIVING VERB (8×)	Any VERB (108×)
ANIMATE Subject Variated by Kenning	15× (100%)	19× (73.07%)	7× (87.50%)	58× (53.70%)
HUMAN Subject Variated by CHILD-Kenning	12× (80%)	12× (46.15%)	4× (50%)	27× (25%)
ANIMATE Argument Variated by LORD-Kenning	3× (20%)	9× (34.61%)	3× (37.50%)	31× (28.70%)

All the passages that we were able to identify in the corpus by means of our basic query are instances of the broader “Argument Variated by Kenning” construction, i.e., [NOUN/PRON/PROPN<sub>X</sub> VERB [NOUN/PROPN.Gen NOUN]<sub>X</sub>]. As explained above (in Section 2.2), our query allowed us to retrieve 108 valid instances of this pattern with any verb (i.e., any word tagged as either VERB or AUX in the corpus). As discussed in Section 3, eight of these instances involve verbs of GIVING, whereas 26 involve SPEECH verbs, obviously including the fifteen instances of the *mápelode* system’s main pattern. In Table 1 and in what follows, for each of these four classes (*mápelode*, SPEECH verb, GIVING verb, and any verb), we detail the relative frequencies of three further sub-patterns discussed in Section 3: “ANIMATE Subject Variated by Kenning”, its sub-type “HUMAN Subject Variated by CHILD-Kenning”, and “ANIMATE Argument Variated by LORD-Kenning”.



First, the fifteen occurrences of the *mapelode* system's main pattern are all structured by the more specific "ANIMATE Subject Variated by Kenning" sub-construction, namely, [ANIMATE.NOUN/PRON/PROPN.Nom<sub>X</sub> VERB [NOUN/PROPN.Gen. NOUN.Nom]<sub>X</sub>]. The latter pattern is by no means limited to the *mapelode* system, however, as it is also extremely frequent not only among SPEECH verbs in general (73.07%), but also among verbs of GIVING (87.50%), and it is actually very well-attested by verbs in general, accounting for more than half of all results of our basic query (53.70%).

An investigation of the two further sub-patterns that underlie the system produced similar results. The "HUMAN Subject Variated by CHILD-Kenning" construction (a sub-type of "ANIMATE Subject Variated by Kenning"), i.e., [HUMAN.NOUN/PRON/PROPN.Nom<sub>X</sub> (SPEECH/GIVING.)VERB [NOUN/PROPN.Gen. CHILD.NOUN.Nom]<sub>X</sub>], accounts for most of the *mapelode* occurrences (80%), which also make up all twelve instances of this sub-pattern with SPEECH verbs (46.15%). Again, this sub-pattern is also among the most frequent ones for both verbs of GIVING (50%) and verbs in general (25%), and its frequency is perhaps best explained by the suggestion that it reflects ancient (West-)Germanic traditional poetic heritage (Mertens-Fonck 1978, pp. 435–36): as long noted (cf. e.g., Cook 1926, p. 3), passages such as (41), *Wiglaf maðelode, Weohstanes sunu* 'Wiglaf made a speech, Wihstan's son' (*Beo.* 1862), find quite close parallels in texts in other early Germanic traditions, such as the Old High German epic poem *Hildebrandslied* (e.g., line 7: *Hiltibrant gimahalta Heribrantes sunu* 'Hildebrand said, Heribrand's son'). As noted by Lord (1991, p. 168) in his comparative analysis of *maðelode* formulas in *Beowulf* and *Elene*, such highly formulaic expressions seem to be reserved for traditional figures, such as Beowulf and Hroðgar, who likely belonged to the Old English heroic tradition, whereas they seem to be lacking for the biblical characters of the poem *Elene*, who were not clearly identifiable by their patronymics or epithets, because they were not part of the same inherited tradition. The same may also be true for the "ANIMATE Argument Variated by LORD-Kenning" sub-construction, namely, [ANIMATE.NOUN/PRON/PROP<sub>X</sub> VERB [NOUN/PROPN.Gen. LORD.NOUN]<sub>X</sub>], which only accounts for 20% of the occurrences of the *mapelode* main pattern, relatively close to the percentage of the same sub-pattern for verbs in general (28.70%). This pattern's frequency, however, increases considerably if one takes into account SPEECH verbs in general (34.61%), and is even higher for verbs of GIVING (37.5%).

Thus, on the one hand, our data suggest that the formulaic constructions of the *mapelode* system's main pattern result from the combination of several more schematic constructions, which in our corpus often occur with other verbs of various semantic types as well. On the other hand, however, they also reveal a very clear correspondence between the behaviors of SPEECH verbs, such as *mapelian*, and of verbs of GIVING, both of which occur disproportionately often (SPEECH 73.07%; GIVING 87.50%), compared to verbs in general (53.70%), within the "ANIMATE Subject Variated by Kenning" sub-construction. In principle, this correspondence may be explained by their underlying semantic structure, as both SPEECH and GIVING verbs are usually three-place verbs, i.e., their meaning implies three main semantic arguments (speaker, receiver, and message for SPEECH; donor, recipient, and theme for GIVING), two of which (speaker and receiver for SPEECH, donor and recipient for GIVING) are most often ANIMATE, with the subject being almost always ANIMATE.

Very similar frequencies for these two semantic classes, however, are also attested with respect to the more specific "HUMAN Subject Variated by CHILD-Kenning" construction (SPEECH 46.15%; GIVING 50%), frequencies that are disproportionately higher than those of the same sub-pattern for verbs in general (25%). The same is also true, although to a lesser extent, for the "ANIMATE Argument Variated by LORD-Kenning" pattern (SPEECH 34.61%; GIVING 37.50%; all verbs 28.70%). In order to explain why SPEECH and GIVING verbs behave similarly and occur so often within these constructions in our corpus, it may be relevant to take into account the heroic ideology that informs Old English epic texts, such as *Beowulf*.

As is well known, one of the main tasks of lords and chieftains in the Old English tradition was the distribution of wealth to their subjects and companions, as exemplified

by the kenning *sinces brytta* ‘dispenser of valuables’ for LORD in (22) above. The importance of the custom of gift exchange within the heroic society depicted in *Beowulf* has been extensively discussed by scholars, such as Donahue (1975, especially pp. 24–29). As argued by Bjork (1994, p. 998), however, just like the exchange of material objects, the exchange of words was also part of this heroic ideology, and in *Beowulf*, speech may in fact be seen as “a link in the chain of the gift”. In any case, the importance of “word-exchange” among the skills of heroic characters is evident from several passages of *Beowulf* itself (Bjork 1994, pp. 996–98), allowing for the assumption that SPEECH, just like GIVING, was regarded as another prerogative of heroic and/or lordly characters in Old English poetry. This may explain why SPEECH and GIVING verbs display remarkably similar frequencies for the “HUMAN Subject Variated by CHILD-Kenning” construction and the “ANIMATE Argument Variated by LORD-Kenning” construction, which served the purpose to characterize the protagonist of the SPEECH or GIVING event as a heroic figure of renowned genealogy and as the chief of a community, respectively.

In the present contribution, we hope to have shown the potential of a constructionist and corpus-based approach to Old English formulas, such as the *māpelode* system of speech introductions. Our investigation should obviously be considered as a pilot study, as it relies on a relatively limited corpus, and it exclusively focuses on the main pattern that underlies most instances of the *māpelode* system. The analysis we carried out may certainly be improved with the aid of a larger corpus and more data in general. For instance, a more refined investigation will need to also take into account information on the metrical structure and the syntactic context of each occurrence. As for the former, metrical annotation would allow the extraction of more refined patterns from our corpus; as for the latter, since our results are exclusively limited to the occurrences that could be extracted on the basis of morphological annotation (part-of-speech class and case), syntactic annotation would allow us to explore further patterns attested by the *māpelode* system, e.g., those in which the verb (not the noun) is variated (Mertens-Fonck 1978, p. 435). It would also be possible to extend our analysis to larger patterns, e.g., to compare passages in which the *māpelode* line is part of a larger group of lines vs. those in which it is not (Mertens-Fonck 1978, pp. 436–37). Future research in the directions proposed in this study may also focus on other patterns attested by both *māpelian* and other SPEECH verbs in Old English, in order to see if differences in the constructions/patterns in which each verb occurs may parallel the differences in their broader usage (on which, see, e.g., Rissanen 1998, pp. 163–64). Finally, it would be interesting to investigate whether SPEECH and GIVING verbs display similarities in other contexts as well.

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## Notes

- <sup>1</sup> For an overview of studies concerning formulas and oral-formulaic theory in Old English, see (Olsen 1986; Orchard 1997; Hopkins 2022).
- <sup>2</sup> See also the Homeric formula *álgea páschōn* ‘suffering pains’ (*Iliad* 2×, *Odyssey* 7×) as a specification of the partially schematic formula  $[[\textit{álgos} ‘pain’]<sub>NP</sub> *path-* ‘feel’]<sub>VP</sub> in (1)b.$
- <sup>3</sup> <https://www-users.york.ac.uk/~lang18/ptext-list.html> (accessed on 18 June 2024).
- <sup>4</sup> This definition is compatible, e.g., with those of Old English scholars such as Bode (1886, p. 8), who includes the *mápelode* system in his discussion of Old English kennings (ibid., pp. 88–89). See also Quinn’s (2016) discussion of Eddic kennings, who discusses “kennings in apposition to a noun rather than as a substitute for one “ (ibid., p. 289) in, e.g., *vaknaði Brynhildr, Buðla dóttir, dís skjöldunga* ‘Brynhildr—daughter of Buðli, goddess of princes—woke up’ (*Brot af Sigurðarkviðu* 14.3), which closely match the phenomena discussed in this contribution. It must be noted that other specialists, such as van der Merwe Scholtz (1927, pp. 51–54), regard kenning and variation as two incompatible phenomena, and thus exclude the *mápelode* system from their treatment of the former.
- <sup>5</sup> The word order [NOUN/PROPN.Gen NOUN] is the most frequently attested by the instances of this pattern in our corpus, namely 66× (61.11% of 108 total occurrences), as opposed to the less frequent [NOUN NOUN/PROPN.Gen], attested 42× (38.88%).

## References

- Biagetti, Erica. 2023. Integrare Sanskrit WordNet e Vedic TreeBank: Uno studio pilota sulla formularità del *Rigveda* tra semantica e sintassi. In *E pluribus unum. Prospettive sull’Antico Per i Decennalia dei Cantieri d’Autunno: I seminari dell’Università di Pavia dedicati al mondo antico*. Edited by Isabella Bossolino and Chiara Zanchi. Pavia: PUP, pp. 45–62.
- Biagetti, Erica. 2024. To run like a steed and to shine like the sun: A collexeme analysis of Rigvedic similes. Paper presented at the Conference Formulaic Language in Historical Research and Data Extraction, Amsterdam, The Netherlands, February 7–9.
- Bjork, Robert E. 1994. Speech as Gift in Beowulf. *Speculum* 69: 993–1022. [CrossRef]
- Bode, Wilhelm. 1886. *Die Kenningar in der angelsächsischen Dichtung. Mit Ausblicken auf andere Litteraturen*. Darmstadt and Leipzig: Eduard Zernin.
- Bozzone, Chiara. 2014. Homeric Constructions. Ph.D. thesis, University of California, Los Angeles, CA, USA.
- Bozzone, Chiara. 2024. *Homer’s Living Language: Formularity, Dialect, and Creativity in Oral-Traditional Poetry*. Cambridge: Cambridge University Press.
- Brigada Villa, Luca, and Martina Giarda. 2023. Using Modern Languages to Parse Ancient Ones: A Test on Old English. In *Proceedings of the 5th Workshop on Research in Computational Linguistic Typology and Multilingual NLP*. Edited by Lisa Beinborn, Koustava Goswami, Saliha Muradoğlu, Alexey Sorokin, Ritesh Kumar, Andreas Shcherbakov, Edoardo M. Ponti, Ryan Cotterell and Ekaterina Vylomova. Dubrovnik: Association for Computational Linguistics, pp. 30–41. Available online: <https://aclanthology.org/2023.sigtyp-1.0/> (accessed on 22 June 2024).
- Brigada Villa, Luca, and Martina Giarda. 2024. From YCOE to UD: Rule-based root identification in Old English. In *Proceedings of the The Third Workshop on Language Technologies for Historical and Ancient Languages (LT4HALA 2024)*. Edited by Rachele Sprugnoli and Marco Passarotti. Torino: ELRA and ICCL, pp. 22–29. Available online: <https://aclanthology.org/2024.lt4hala-1.3> (accessed on 22 June 2024).
- Brigada Villa, Luca, Andrea Farina, and Chiara Zanchi. Forthcoming. Formulaic networks as prototypical categories: Combining the *Ancient Greek Dependency Treebank* with the *Ancient Greek WordNet* for a pilot study on the *Iliad*. In *Proceedings of the International Colloquium of Ancient Greek Linguistics (ICAGL10), Madrid, 16–18 June 2022*. Edited by Jesús de la Villa. Berlin and New York: Mouton de Gruyter.
- Brigada Villa, Luca, Erica Biagetti, Riccardo Ginevra, and Chiara Zanchi. 2023. Combining WordNets with Treebanks to study idiomatic language: A pilot study on Rigvedic formulas through the lenses of the Sanskrit WordNet and the Vedic Treebank. In *Proceedings of the 12th Global WordNet Conference*. Edited by German Rigau, Francis Bond and Alexandre Rademaker. Donostia-San Sebastian: Global Wordnet Association, pp. 133–39.
- Buchholz, Sabine, and Erwin Marsi. 2006. CoNLL-X shared task on multilingual dependency parsing. In *Proceedings of the Tenth Conference on Computational Natural Language Learning (CoNLL-X)*. New York: Association for Computational Linguistics, pp. 149–64.
- Campanile, Enrico. 1977. *Ricerche di Cultura Poetica Indoeuropea*. Pisa: Giardini.
- Campbell, Alistair. 1962. The Old English Epic Style. In *English and Medieval Studies Presented to J.R.R. Tolkien on the Occasion of His Seventieth Birthday*. Edited by Norman Davis and Charles L. Wrenn. London: Allen & Unwin, pp. 13–26.
- Cassidy, Frederic G. 1965. How Free Was the Anglo-Saxon Scop? In *Franciplegius: Medieval and Linguistic Studies in Honor of Francis Peabody Magoun*. Edited by Jess B. Bessinger and Robert P. Creed. New York: New York University Press, pp. 75–85.
- Cook, Albert S. 1926. The Beowulfian Madelode. *The Journal of English and Germanic Philology* 25: 1–6.
- Creed, Robert P. 1957. The Andswarode-System in Old English Poetry. *Speculum* 32: 523–28. [CrossRef]
- Croft, William, and D. Alan Cruse. 2004. *Cognitive Linguistics*. Cambridge: Cambridge University Press.

- De Marneffe, Marie-Catherine, Christopher D. Manning, Joakim Nivre, and Daniel Zeman. 2021. Universal Dependencies. *Computational Linguistics* 47: 255–308. [CrossRef]
- Diamond, Robert E. 1959. The Diction of the Signed Poems of Cynewulf. *Philological Quarterly* 38: 228–41.
- Donahue, Charles. 1975. Potlatch and Charity: Notes on the Heroic in Beowulf. In *Anglo-Saxon Poetry: Essays in Appreciation for John C. McGalliard*. Edited by Lewis Nicholson and Dolores Warwick Frese. Notre Dame: University of Notre Dame Press, pp. 23–40.
- Fillmore, Charles J., Paul Kay, and Mary Catherine O'Connor. 1988. Regularity and Idiomaticity in Grammatical Constructions: The Case of Let Alone. *Language* 64: 501–38. [CrossRef]
- Foley, John Miles, ed. 1985. Introduction. In *Oral-Formulaic Theory and Research: An Introduction and Annotated Bibliography*. Garland Folklore Bibliographies, 6. New York: Garland, pp. 3–77.
- Frog. 2014a. Mythological Names in *dróttkvætt* Formulae I. *Studia Metrica et Poetica* 1: 100–39. [CrossRef]
- Frog. 2014b. Mythological Names in *dróttkvætt* Formulae II. *Studia Metrica et Poetica* 1: 39–70. [CrossRef]
- Frog. 2014c. Oral Poetry as Language Practice: A Perspective on Old Norse *dróttkvætt* Composition. In *Song and Emergent Poetics—Laulu ja runo—Песня и видоизменяющаяся поэтика*. Edited by Pekka Huttu-Hiltunen, Frog, Karina Lukin and Eila Stepanova. Kuhmo: Juminkeko, pp. 279–307.
- Fry, Donald K. 1967a. Old English Formulas and Systems. *English Studies* 48: 193–204. [CrossRef]
- Fry, Donald K. 1967b. Variation and Economy in Beowulf. *Modern Philology* 65: 353–56. [CrossRef]
- Fry, Donald K. 1981. Formulaic Theory and Old English Poetry. In *International Musicological Society, Report of the 13th Congress, Berkeley, 1977*. Kassel: Blrenreiter, pp. 169–73.
- Fulk, Robert D., ed. 2010. *The Beowulf Manuscript: Complete Texts and the Fight at Finnsburg*. Cambridge: Harvard University Press.
- Gattiker, Godfrey L. 1962. The Syntactic Basis of the Poetic Formula in Beowulf. Ph.D. thesis, University of Wisconsin, Madison, WI, USA.
- Ginevra, Riccardo. 2023. Loki's Chains, Agni's Yoke, Prometheus Bound, and the Old English *Boethius*: Indo-European Myths of the "Binding/Yoking of Fire-Gods" in the Light of Comparative Poetics and Cognitive Linguistics. *Indogermanische Forschungen* 128: 203–52. [CrossRef]
- Goldberg, Adele E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure*. Chicago: Chicago University Press.
- Goldberg, Adele E. 2006. *Constructions at Work: The Nature of Generalization in Language*. Oxford: Oxford University Press.
- Green, Donald C. 1971. Formulas and Syntax in Old English Poetry: A Computer Study. *Computers and the Humanities* 6: 85–93. [CrossRef]
- Hainsworth, John B. 1964. Structure and Content in Epic Formulae: The Question of the Unique Expression. *Classical Quarterly* 14: 155–64. [CrossRef]
- Hopkins, Stephen C. E. 2022. Of Scopas and Scribes: Reshaping Oral-Formulaic Theory in Old English Literary Studies. In *Weathered Words: Formulaic Language and Verbal Art*. Edited by Frog and William Lamb. Publications of the Milman Parry Collection of Oral Literature 6. Cambridge: Milman Parry Collection of Oral Literature. Available online: [http://nrs.harvard.edu/urn-3:hul.ebook:Frog\\_LambW\\_ed.Weathered\\_Words.2022](http://nrs.harvard.edu/urn-3:hul.ebook:Frog_LambW_ed.Weathered_Words.2022) (accessed on 22 June 2024).
- Hostetter, Ophelia E. 2024. Old English Poetry Project. Exodus. Available online: <https://oldenglishpoetry.camden.rutgers.edu/exodus/> (accessed on 22 June 2024).
- Kiparsky, Paul. 1976. Oral Poetry: Some Linguistic and Typological Considerations. In *Oral Literature and the Formula*. Edited by Benjamin A. Stolz and Richard S. Shannon. Ann Arbor: Center for Coordination of Ancient and Modern Studies, pp. 73–106.
- Krause, Wolfgang. 2014. Die Kenning als typische Stilfigur der germanischen und keltischen Dichtersprache. In *Wolfgang Krause. Schriften zur Runologie und Sprachwissenschaft*. Edited by Heinrich Beck, Klaus Düwel, Michael Job and Astrid van Nahl. Berlin and Boston: De Gruyter, pp. 565–90. First published 1930.
- Kroch, Anthony. 2020. *Penn Parsed Corpora of Historical English LDC2020T16*. Web Download. Philadelphia: Linguistic Data Consortium.
- Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar, Vol. 1: Theoretical Prerequisites*. Stanford, CA: Stanford University Press.
- Lord, Albert B. 1953. Homer's Originality: Oral Dictated Texts. *Transactions and Proceedings of the American Philological Association* 84: 124–34. [CrossRef]
- Lord, Albert B. 1960. *The Singer of Tales*. Cambridge: Harvard University Press.
- Lord, Albert B. 1991. *Epic Singers and Oral Tradition*. Ithaca: Cornell University Press.
- Magoun, Francis P., Jr. 1953. Oral-Formulaic Character of Anglo-Saxon Narrative Poetry. *Speculum* 28: 446–67. [CrossRef]
- Marquardt, Hertha. 1938. *Die altenglischen Kenningar: Ein Beitrag zur Stilkunde altgermanischer Dichtung*. Halle (Saale): Niemeyer.
- Martín Arista, Javier. 2022. Toward the morpho-syntactic annotation of an Old English corpus with universal dependencies. *Revista de lingüística y lenguas aplicadas* 17: 85–97. [CrossRef]
- McConchie, Roderick. W. 2000. The use of the verb "maþelian" in "Beowulf". *Neuphilologische Mitteilungen* 101: 59–68.
- McTurk, Rory W. 1997. Variation in Beowulf and the Poetic Edda: A Chronological Experiment. In *The Dating of Beowulf*. Edited by Colin Chase. Toronto: University of Toronto Press, pp. 141–60.
- Meissner, Rudolf. 1921. *Die Kenningar der Skalden: Ein Beitrag zur skaldischen Poetik*. Bonn and Leipzig: Schroeder.
- Mertens-Fonck, Paule. 1978. Structure des passages introduisant le discours direct dans Beowulf. In *Mélanges de philologie et de littératures romanes offerts à Jeanne Wathelet-Willem*. Edited by Jacques de Caluwé. Liège: Cahiers de l'A. R. U. Lg., pp. 433–45.
- Nagler, Michael N. 1967. Towards a Generative View of the Oral Formula. *Transactions and Proceedings of the American Philological Association* 98: 269–311. [CrossRef]

- Nagy, Gregory. 1974. *Comparative Studies in Greek and Indic Meter*. Cambridge: Harvard University Press.
- Nagy, Gregory. 1976. Formula and Meter. In *Oral Literature and the Formula*. Edited by Benjamin A. Stolz and Richard S. Shannon. Ann Arbor: Center for Coordination of Ancient and Modern Studies, pp. 239–60.
- Niles, John D. 1983. *Beowulf: The Poem and Its Tradition*. Cambridge: Harvard University Press.
- Ogura, Michiko. 1996. *Verbs in Medieval English. Differences in Verb Choice in Verse and Prose*. Berlin and New York: Mouton de Gruyter.
- Olsen, Alexandra Hennessey. 1986. Oral-formulaic research in Old English studies: I. *Oral Tradition* 1/3: 548–606.
- O’Neil, Wayne A. 1960. Oral-Formulaic Structure in Old English Elegiac Poetry. Ph.D. thesis, University of Wisconsin, Madison, WI, USA.
- Orchard, Andy. 1997. Oral tradition. In *Reading Old English Texts*. Edited by Katherine O’Brien O’Keeffe. Cambridge: Cambridge University Press, pp. 101–23.
- Paetzl, Walther. 1913. *Die Variationen in Der Altgermanischen Alliterationspoesie*. Berlin: Mayer & Müller.
- Pagán Cánovas, Cristóbal, and Mihailo Antović. 2016. Construction grammar and oral formulaic theory. In *Oral Poetics and Cognitive Science*. Edited by Mihailo Antović and Cristóbal Pagán Cánovas. Berlin: De Gruyter, pp. 79–98.
- Parry, Milman. 1971. Studies in the Epic Technique of Oral Verse-Making. I. Homer and Homeric Style (HS). In *The Making of Homeric Verse: The Collected Papers of Milman Parry*. Edited by Adam Parry. Oxford: Oxford University Press, pp. 266–324. First published 1930.
- Parry, Milman. 1971. Studies in the Epic Technique of Oral Verse-Making. II. The Homeric Language as the Language of Oral Poetry (HL). In *The Making of Homeric Verse: The Collected Papers of Milman Parry*. Edited by Adam Parry. Oxford: Oxford University Press, pp. 225–364. First published 1932.
- Parry, Milman. 1971. The Traditional Epithet in Homer. In *The Making of Homeric Verse: The Collected Papers of Milman Parry*. Edited by Adam Parry. Oxford: Oxford University Press, pp. 1–190. First published 1928.
- Pàroli, Teresa. 1975. *Sull’elemento formulare nella poesia germanica antica*. Rome: Istituto di glottologia, Università di Roma.
- Pintzuk, Susan, and Leendert Plug. 2002. *The York-Helsinki Parsed Corpus of Old English Poetry (YCOEP)*. York: Department of Language and Linguistic Science, University of York.
- Quinn, Judy. 2016. Kennings and Other Forms of Figurative Language in Eddic Poetry. In *A Handbook to Eddic Poetry: Myths and Legends of Early Scandinavia*. Edited by Carolyne Larrington, Judy Quinn and Brittany Schorn. Cambridge: Cambridge University Press, pp. 288–309.
- Rissanen, Matti. 1998. Mapelian in Old English Poetry. In *Words and Works: Studies in Medieval English Language and Literature in Honour of Fred C. Robinson*. Edited by Peter S. Baker and Nicholas Howe. Toronto: University of Toronto Press, pp. 159–72.
- Robinson, Fred C. 1985. *Beowulf and the Appositive Style*. Knoxville: University of Tennessee Press.
- Russo, Joseph A. 1963. A Closer Look at Homeric Formulas. *Transactions and Proceedings of the American Philological Association* 94: 235–47. [\[CrossRef\]](#)
- Russo, Joseph A. 1966. The Structural Formula in Homeric Verse. *Yale Classical Studies* 20: 217–40.
- Stefanowitsch, Anatol, and Stefan T. Gries. 2005. Covarying collexemes. *Corpus Linguistics and Linguistic Theory* 1: 1–43. [\[CrossRef\]](#)
- Taylor, Ann, Anthony Warner, Susan Pintzuk, and Frank Beths. 2003. *The York-Toronto-Helsinki Parsed Corpus of Old English Prose*. York: Department of Language and Linguistic Science, University of York.
- van der Merwe Scholtz, Hendrik. 1927. *The Kenning in Anglo-Saxon and Old Norse Poetry*. Utrecht: Dekker & Van de Vegt en J. W. Van Leeuwen.
- Watkins, Calvert. 1976. Answer to P. Kiparsky’s Paper: Oral Poetry: Some Linguistic and Typological Considerations. In *Oral Literature and the Formula*. Edited by Benjamin A. Stolz and Richard S. Shannon. Ann Arbor: Center for Coordination of Ancient and Modern Studies, pp. 107–11.
- Watkins, Calvert. 1995. *How to Kill a Dragon: Aspects of Indo-European Poetics*. New York and Oxford: Oxford University Press.
- Wærn, Ingrid. 1951. ΓΗΣ ΟΣΤΕΑ. *The Kenning in Pre-Christian Greek Poetry*. Uppsala: Almqvist & Wiksells.
- Whallon, William. 1965. Formulas for Heroes in the Iliad and Beowulf. *Modern Philology* 63: 95–104. [\[CrossRef\]](#)

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