"WUNDORLICE HIT HÆLEÞ": ORGANIZATION AND
METATEXTUAL MARKERS IN OLD ENGLISH RECIPES

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Acceptance Page

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Abstract

This study seeks to examine the ways structural components and metatextual markers contribute to the organization of Old English medicinal texts. Through quantitative linguistic analysis of the *Læceboc*, *Lacnunga, Herbarium,* and *Medicina de Quadrupedibus,* the study shows that Old English medicinal recipes follow a defined structure: heading (consisting of a starting word and an ailment listing), ingredient list, preparation, administration, and efficacy statement. This structure bears marked similarities to the organizational strategies scholars have advanced for Middle English recipes.

However, this analysis shows that Old English recipes do not possess any obligatory components. Instead, all components are optional, though some, such as administration, display less optionality than others, such as the ingredient list and the efficacy statement. The overall similarities in structure suggest a continuing textual tradition between Old English and Middle English recipes. In addition to component-based organization, these medicinal texts were found to contain metatextual markers, or words and phrases that appear to serve an organizational function within the texts yet fail to meet the definition of formal discourse markers. Though *wiþ*, *genim* and *nim*, and generic efficacy statements serve metatextual functions and demonstrate many of Brinton's features of discourse markers, none of these elements can be categorized as discourse markers.

Table of Contents

"Wundorlice hit hæleþ": Organization and Metatextual Markers in Old English Recipes

1. Aim

Though recipes have recently received some scholarly interest from a linguistic and historical perspective (Carroll 2004, 2006; Grund 2003; Mäkinen 2004; Taavitsainen 2001a), Old English medicinal recipes continue to be a relatively unexplored frontier; the aforementioned recent scholarship deals primarily with recipes from the Middle English period. However, Old English medicinal texts were an important part of the process of vernacularization in English, or the process of "norms [being] developed for the creation and reception of texts," (Carroll 2004, 175), and they therefore constitute a body of texts worthy of scrutiny. As Pahta and Taavitsainen note, "the register of scientific writing is one that shows almost unbroken continuity from the earliest periods to the present… the earliest layer of scientific writing dates from the Anglo-Saxon period, [and] a continuous line of development can be traced from the fourteenth century up to the present" (2004, 1). Though scholars have studied medical texts and other types of recipe texts for later forms of the language, this "continuous line of development" has not yet been extended backwards to incorporate linguistic studies of Old English scientific texts, save for a brief two paragraphs in Görlach (1992). To this end, my study will examine the organizational and discoursal strategies at work in Old English medical recipes by investigating their use of structural components and their use of linguistic markers in metatextually distinguishing these components.

2. Background

   Though scholarship has not addressed the components found in Old English recipes, a
number of scholars including Carroll, Stannard, Grund, and Mäkinen have investigated the
components present in Middle English recipes. Carroll (2006) provides an excellent breakdown
of the various organizational strategies espoused by Stannard (1982), Hunt (1990), Görlach
(1992), Taavitsainen (2001b), Alonso (2002), Grund (2003), and Mäkinen (2004). Her table,
included below, details the components identified by each researcher as well as their assessments
of which components are obligatory or optional. This breakdown shows the commonalities
Carroll observes between various researchers' organizational strategies: most scholars identify a
title or heading component, an ingredients component, a preparation or procedure component, an
application or administration component, and a closing component consisting of a rationale,
efficacy statement, closing formula, or other incidental data.

STANNARD 1982	HUNT 1990	GÖRLACH 1992	TAAVITSAINEN 2001	ALONSO 2002	GRUND 2003	MÄKINEN 2004
(medieval recipes, cross-linguistic survey)	(Anglo-Norman medical recipes)	(English culinary recipes, diachronic survey)	(Middle English medicinal recipes, in surgical texts)	(comparative study, medieval Spanish and English recipes)	(alchemical recipes in CCC, Oxford MS 226)	(recipes & recipe paraphrases found in herbals)
purpose (or intended result)	*rubric* (type of remedy by name) Not necessarily present in vernacular / popular recipes	title	title (or opening lines) (no standard form) may be preceded by explanations or efficacy or application.	título (among the therapeutics / purpose)	*heading* (defined structurally – may precede material preceding help)	purpose (usually found at end of recipe, before any supplementary or concluding information)
	indication (conditions the remedy for) sometimes placed at end					
ingredients & equipment	composition (ingredients) – "the greater part of the medical receipt"	ingredients	instructional part (how to make the medicine) do include ingredient action	ingredientes (also substitute ingredients may be mentioned at end of recipe)	*substances* (& equipment) Not necessarily all introduced at the opening	ingredients (usually open recipe)
rules of procedure	preparation (usually known as the *confectio* or *confaid*)	procedure		preparación (notes that the action may be combined with ingredient section)	procedure major part of most recipes (May contain sub-recipes "unpredicted, phrased, result")	procedure
application & administration	*application*	"how to serve up"	explanations of application may be found at recipe opening	aplicación: dosis, uso, duración	*result* may include possible application; also has organisational function	administration
				almacenamiento (storage instructions)		
rationale "often discovered by reading between the lines" (p.66)	STATEMENT OF EFFICACY		*efficacy* (again, much variation found) "placed last in overall structure" references to source may occur in heading or in efficacy or both	eficacia	*dosing formula* varied in form and content (not formulaic phrase) Also function organisationally	*preparation*
incidental data catch-all for additional information: synonyms, names of authorities, prognostications, formulaic phrases, etc.				# de comensales (number served)		*additional information*

table 1 KEY: **bold**: explicitly said to be obligatory or essential; CAPS: said to be frequent; *italic*: explicitly said to be optional, or lacking in many recipes

As we will see in Section 4.1, the structural components identified by my research bear the closest relation to those outlined by Mäkinen (2004). He cites six "types of information" found in medieval recipes: purpose, ingredients, procedure, administration of medicine, justification, and additional information (146). However, he also contends that "[t]he first four kinds of information are deemed necessary for a given text to be categorized as a recipe," but states that "[j]ustification… as well as additional information, such as efficacy phrases… may be omitted, and they often are" (146). Such contentions fall within the scholarly norm; as explained above, many scholars cite at least one structural component as obligatory. For example, Stannard (1982) claims that purpose, ingredients and equipment, rules of procedure, and application and administration are all mandatory components for medieval recipes, and Grund's (2003) analysis reveals procedure to be a mandatory element in the alchemical recipes he studies (as cited in Carroll 2004, 308).

Most scholars find at least one component to be obligatory; some scholars designate some components as optional. However, it is important to note that no scholar finds all components to be optional, and no scholar finds all components to be obligatory. All assessments of structure leave room for some variation within the genre, but no scholar contends that recipes allow for all components to be optional. The most common component to be considered obligatory is the procedure component, which is the only component that is not considered optional by at least one scholar. The organizational strategy identified by Grund (2003) allows for the most optionality, with optional heading, substances, result, and closing formula components. However, his analysis establishes the procedure component as mandatory, noting that it may even contain sub-recipes consisting of ingredients, procedure, and result.

As Carroll's table shows, the most variation between scholars' organizational schemata occurs in the closing component. Scholars variously designate this component as including rationale, efficacy statement, closing formula, or other incidental data. In this regard, I align most closely with Hunt (1990), Taavitsainen (2001a), and Alonso (2002), all of whom specify the efficacy statement as a component of the recipe. Mäkinen calls this component "justification," and defines this as "the evidence provided in a recipe to prove its potency… [including] efficacy phrases" (2004, 146). Stannard allows for a rationale, which he defines as "a reason, either implicit or explicit, on the basis of which one believed a recipe and hence, proceeded to use it," and incidental data, which he admits is a poorly-defined category (Stannard 1982, 68-70). Grund's study fails to yield the kind of formulaic phrase found in culinary and medical recipes, likely because his study focuses on alchemical rather than medical recipes (2003, 472). Even the scholars who agree on the presence of efficacy statements have a difficult time establishing a specific form: as Carroll's table notes, Taavitsainen observes that "much variation [is] found" between efficacy statements, but they are consistently "placed last in [the] overall structure" of the recipes (Carroll 2006, 308).

Claire Jones' article on efficacy statements in medieval English medical manuscripts reveals some regularity in efficacy statements. She contends that efficacy statements are a type of "tag phrase," which she defines as phrases "found at the end of a text which add no further necessary information in order for a text to be used" (Jones 1998, 199). According to Jones, efficacy statements "attest to the value of a recipe, and… are found in the final closing position" (1998, 201). She then identifies two categories of efficacy phrases: stock phrases, "which could be attached to the end of most recipes and contain nothing specific to relate them to the preceding text," and specific phrases, "which are limited in their application to a small group of

texts, such as those for a particular ailment" (Jones 1998, 201). In Jones' analysis, she found that specific phrases tended to be more precise and more structurally complex than stock phrases, which she suggests may relate to the idea of proof for specific remedies (1998, 204).

Discourse markers are another source of textual evidence that can be used to study recipes' organizational strategies. As Brinton (2010)[1] explains, the study of discourse markers includes two different types of analysis: synchronic, which examines the existence and function of discourse markers at various points in the history of the language; and diachronic, which studies the development of discourse markers through time. Brinton also offers a very complete definition of discourse markers: while they are not a formal grammatical class, they can be identified by their many unique characteristics. She asserts that discourse markers are phonologically "short," that they are generally found in a sentence-initial position, that they possess syntactic elements loosely attached to their host clause, that they occupy a separate intonation unit, that their scope includes global units of discourse, that they are high-frequency words, that they are stylistically stigmatized, and that they possess little to no semantic content as non-referential and non-propositional elements (Brinton 2010, 285-286). Brinton argues that they therefore constitute a functional, not grammatical class; though they are classically regarded as text-connectors, they can also serve interpersonal as well as textual functions through references to speakers and/or hearers (2010, 286).

Brinton identifies specific textual and interpersonal roles that discourse markers can fulfill. In textual roles, discourse markers can be used to start or end a discourse, mark topic shifts, denote episodic boundaries, constrain the relevance of adjoining clauses, or introduce repairs or reformulations to the content. In interpersonal roles, discourse markers can be used to

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[1] I found Brinton's article to be both the most recent and complete discussion of the study of discourse markers throughout the history of English, and I therefore rely heavily on it for my background of the field.

focus on speakers' responses, reactions, attitudes, or evaluations, or to maintain attention. They can also focus on the relationship between the speaker and the hearer by being attention-getting, building cooperation, establishing shared knowledge, or encouraging solidarity and intimacy (Brinton 2010, 286).

Brinton's article provides examples of known discourse markers from the various periods of English; her breakdown of Old English discourse markers is organized by function. According to Brinton, *þa* acts as a marker of narrative segmentation, a foreground "dramatizer," a sign of colloquial speech, a peak marker, or a topic shifter. *Hēr* and *nū* distinguish domains in the discourse as distal or proximal, while *sōna* and *þærrihte* ("immediately," "at once") signal the "peak zone" of narratives. *Hwæt* questions or assumes common knowledge, expresses speaker surprise, and focuses attention, while *hwæt þa* expresses that the following content can be inferred from previous content. *Witodlice* and *sōþlice* act as highlighting devices or markers of shifts, and *eala, la, hwæt, efna,* and *wa* focus on interaction between participants and may also signal a variety of discourse phenomena such as topic shifts, turn-taking, and text-structuring. Finally, clausal structures such as *þa {gelamp, gewearð, wæs} þæt* can initiate or terminate an episode, ground episodes in the narrative, and guide the reader through the structure of the text (Brinton 2010, 287-288). These examples show which discourse markers are identified for Old English texts.

Brinton also discusses the multiple ways that discourse markers can develop and introduces the debate over discourse markers' processes of development. Scholars disagree whether discourse markers' changes are the result of grammaticalization, pragmaticalization, or lexicalization. According to Brinton, much of the existing research argues for grammaticalization as a unidirectional path in which potential discourse markers become fixed in form,

decategorialized, and desemanticized. This process follows Hopper's principles of grammaticalization: divergence from the original lexical form, layering to coexist with other grammaticalized forms, and persistence of traces of the original lexical meaning. In this way, the nascent discourse markers' scope of modification grows rather than shrinks. Brinton contends that many Old English discourse markers can be interpreted this way, including *hwæt, sōþlice, witodlice,* and others (Brinton 2010, 302-303).

Pragmaticalization is a closely related process in which the lexical element develops directly into a discourse marker without the grammaticalization process. Brinton marks it as distinct from grammaticalization because of its non-truth-conditionality and the optionality of items; in this process, speakers begin to see the lexical item's potential for textual and interpersonal meanings and begin to use its forms for rhetorical intent, which then leads to the formalization of conversational implications and ultimately the use of the discourse marker in additional contexts. Brinton sees this process as a subtype of grammaticalization (2010, 305). Finally, lexicalization is another process of discourse marker development, but its definition is contested. Brinton cites its overall argument as denoting discourse markers' univerbation and acquisition of semantic independence, but points out dissenting opinions from other scholars. Traugott argues that lexicalization is invalid because discourse markers do not act as lexical items, and Traugott and Brinton argue that what is commonly called lexicalization is simply the process of grammaticalization for nouns, verbs, and adverbs. These processes provide a way of assessing a metatextual marker's progress towards full discourse marker status.

Overall, Brinton's article provides a useful definition of discourse markers as well as an excellent overview of some of the common discourse markers in Old English. Her breakdown of

the various theories on the development of discourse markers also sheds light on some of the processes that may be occurring in the texts examined.

3. Materials & Methodology

A great deal of recent discussion has dealt with the term "recipe" and its generic connotations. For some varying perspectives on recipes' identity as part of a larger genre, see Carroll (2004), Görlach (1992), and Taavitsainen (2001a). For my analysis, I draw on Carroll's (2004) assertion that "a recipe's function determines its genre" (178). Taavitsainen (2001a) similarly defines genre in terms of "external evidence in the context of culture" (140). These definitions highlight function as the main factor in determining genre; Carroll specifies farther that the "function of a recipe as commonly accepted… is to prepare something" (2004, 187). In this instance, the "something" in question can be specified as medicinal remedies: the four texts examined are all medicinal texts, and the contents were intended to be used to create remedies. This functional rationale was used to select the texts used for this study. Regarding these texts as members of the recipe genre allows this study to compare its results against those found by scholars examining later recipes and contextualizes the results as part of a tradition of generic continuity.

The functional nature of these texts has been called into question by previous scholarship. Historically, scholars have argued that "the surviving [medical] codices manifest an uncritical copying of classical texts with no real understanding and no thought to their practical use" (Voigts 1979, 252). This view was espoused by many scholars, including Grattan (1927), Singer (1927), and Bonser (1963). However, Voigts argues for the practical nature of Old English medical texts, contending that "the strongest indication that an Anglo-Saxon medical manuscript

was considered a living remedy book… is the addition of other recipes by later users" (1979, 258). Voigts' argument for the texts' active use for medical purposes, when coupled with the functional definition of genre, adds to the rationale for classifying the contents of these medicinal texts as recipes due to their instructive function.

My research deals with the four surviving long Old English medical works: the *Lacnunga*, the *Læceboc*, the *Herbarium*, and the *Medicina de Quadrupedibus*. The *Læceboc* and *Lacnunga* are the only two which are not translations of earlier Latin or Greek medical texts, whereas the *Herbarium* and *Medicina de Quadrupedibus* are both recognized as translations of Latin compilations dating from the fourth and fifth centuries (Voigts 1979, 250; Grendon 1909, 106; de Vriend 1984, v). I used Cockayne's *Leechdoms, Wortcunning, and Starcraft of Early England* (1865) as the edition of the text of the *Læceboc* and *Lacnunga*. This text is recommended as the standard edition of these texts (Wright 1955, 12) and widely used by other scholars dealing with Old English medicinal recipes, including Voigts (1979). For the text of the *Herbarium* and *Medicina de Quadrupedibus*, I used de Vriend's 1984 edition, which provides text from the Cotton Vitellius C III MS alongside the Latin source texts, including MS O from Harley 6258 B.

The *Læceboc*, also known as the *Leech Book of Bald*, consists of three collections of herbal recipes, each with their own table of contents and numbering system. The first two books deal with external and internal afflictions, respectively, and their material derives from many Mediterranean sources as well as native sources (Cameron 1993, 42). The third book's recipes derive from Northern European medicine, and its recipes appear to include less influence from Mediterranean sources (Cameron 1993, 35). These collections are estimated to have originated in the mid-tenth century from the court of Alfred the Great (Voigts 1979, 250; Rohde 1922, 243;

Grendon 1909, 106; Wright 1955, 12). Its text survives in one MS, the British Library Royal

12D. xvii, fols 1-127v.

The *Lacnunga* contains more healing charms and magical elements than the other

surviving medicinal texts (Voigts 1979, 250); its codex's estimated origin dates back to the late

tenth or early eleventh centuries, though some scholars believe it is actually a copy of a much

older manuscript (Voigts 1979, 250; Rohde 1922, 243; Grendon 1909, 106). The *Lacnunga*'s

manuscript is the British Library Harley 585, which also contains the "Lorica" of Gildas[2] and a

version of the *Herbarium.* The *Lacnunga* can be found on fols 130-151v and 157-193. Its recipes

begin with the "traditional arrangement of head-to-foot order, but before twenty remedies are

entered the arrangement has been lost, the nineteenth dealing with haemorrhoids, the twentieth

with the preparation of oil of roses and the twenty-first with a treatment for heart attack"

(Cameron 1993, 45-46). Cameron describes it as a volume characterized by "carelessness"

(1993, 46), and asserts that the palaeographic evidence suggests the involvement of two different

scribes.

The *Herbarium*, formally known as the *Old English Herbarium* to distinguish it from its

Latin source texts, is a translation of three separate Latin texts: *De herba vettonica liber*,

Herbarium Apulei, and *Liber medicinae ex herbis femininis* (de Vriend 1984, lvi). The

Herbarium Apulei, a text formerly attributed to Lucius Apuleius of Madaura but now dated as

originating in the fourth century, accounts for the majority of the translated text (de Vriend 1984,

lvi, lvii). Scholars speculate that the text originated in either South Italy, Sicily, or North Africa;

though it was formerly thought to be a translation from a Greek text, further research has shown

that Latin was the original language of its compilation (de Vriend 1984, lviii). The *Herbarium*

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[2] A prayer against pestilence and death.

can be found in multiple Latin manuscripts as well as multiple Old English manuscripts including Cotton Vitellius C III, which is the source of de Vriend's edition.

The *Medicina de Quadrupedibus* is found in four Old English manuscripts as well as the Latin manuscript Lucca, which is number 296 in the Biblioteca Governativa. Like the *Herbarium*, the *Medicina de Quadrupedibus* is likewise one continuous text forged from three originally separate sections: the *Liber de taxone*, a treatise on mulberry's healing properties, and the A-version of the *Liber medicinae ex animalibus*. The A-version of the *Liber medicinae ex animalibus* accounts for the majority of the text; it is a less complete version than the B-version. The *Medicina de Quadrupedibus* is always found after the *Herbarium* but always treated as a separate text; evidence points to its composition dating to the fifth century rather than the fourth (de Vriend 1984, lxii, lxv).

Due to time constraints, it was not possible to analyze every recipe contained in the four texts selected for this study. Instead, I developed a sampling process to extract recipes for analysis. When applicable, I bypassed the table of contents in order to get to the recipes contained in the text. I then conducted analysis on the recipes contained on one page of the edition used for each text, beginning with the first complete recipe. In order to get recipes representing all parts of each text, I then skipped 10 pages of the edited text before repeating the process. For the most part, the recipes I encountered fit the definition of the recipe genre established above; however, in the *Lacnunga*, I encountered several remedies which would be more accurately described as charms. For one, no herbal ingredients were involved in the remedy. Additionally, other traits scholars have identified as characteristic of charms were present, such as a performative aspect including Christian formulae (Gray 1974), or other ritualistic strategies such as the writing or pronouncing of potent names or letters or the singing

of incantations (Grendon 1909), especially using Latinate words (Vaughan-Sterling 1983). Most

significant, however, is these charms' differing function: rather than curing a specific malady

like a recipe, charms focus on repelling or banishing supernatural spirits responsible for sickness

(Vaughan-Sterling 1983). Such charms were excluded from the analysis because they do not

constitute examples of the medicinal recipe genre that this study focuses on. I used this process

to select a total of 50 recipes per text, which I then assessed for structural organization as well as

content. I chose to analyze 50 recipes per text in order to guarantee a large enough sample size

for tabulation while keeping the total number of recipes manageable in scope.

For each of the recipes identified, I used an Excel spreadsheet to record data about each

possible component. I began by consulting previous authors' schemata for structural

organization, and I also evaluated a preliminary sample of five recipes per text. Based on these

results, I determined that the components possible in each recipe were: a heading (consisting of a

starting word[3] and an ailment description), a list of ingredients, instructions for preparation,

instructions for administration, and an efficacy statement. These categories were both context-

and content-based, and the information recorded was semantically identified. With these

components in mind, I recorded variables falling into two main categories: the presence of

components based on textual content, and the appearance of a word (if any) at the junctures

between components. This approach yielded entries for the following variables: main herbs used

in each recipe, whether a heading is present, the starting word (if present), whether an ailment is

directly specified in the text, whether additional descriptive information is given about that

ailment, whether a list of ingredients is given, whether that ingredient list is preceded by a

prefatory preposition or imperative verb, whether instructions for preparation are given, whether

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[3] This category of "starting words" encompasses words belonging to many grammatical classes, including prepositions, adverbs, and articles. For the lack of a better term, I will refer to this category as "starting words" throughout the paper.

those preparation instructions are preceded by a prefatory conjunction or imperative verb, whether instructions for administration are given, whether those administration instructions are preceded by a prefatory conjunction or imperative verb, whether an efficacy phrase is present, and the text of that efficacy phrase. These variables were recorded in order to account for structural components and to record any prefatory elements in order to evaluate whether metatextual markers were present.

In order to determine efficacy phrases' potential metatextual status, I examined their categories. Based on Jones' research, I went through and classified each efficacy phrase as generic or specific. Generic efficacy phrases are what Jones designates "stock phrases:" "those which could be attached to the end of most recipes and contain nothing specific to relate them to the preceding text" (Jones 1998, 201). Specific phrases follow Jones' definition of "those which are limited in their application to a small group of texts, such as those for a particular ailment" (Jones 1998, 201).

Once I had recorded the information for all 200 recipes, I used Excel's PivotTable and PivotChart feature to view the data in a variety of table and graphical formats. These charts and tables form the basis of the following sections of my study. Where examples are given from the texts, I have used Cockayne's translations for the *Lacnunga* and *Læceboc*. Because de Vriend does not provide translations in his edition of the *Herbarium* and *Medicina de Quadrupedibus*, I have supplied my own translations for those texts.

4.   Structural Characteristics

4.1. Overall Structure

My findings identify five discrete structural components in Old English recipes: a heading, a list of ingredients, instructions for preparation, instructions for administration, and an efficacy statement. These categories most closely resemble those defined by Mäkinen (2004). He cites six "types of information" found in medieval recipes: purpose, ingredients, procedure, administration of medicine, justification, and additional information (146). Significantly, my research shows that none of the components appear to be mandatory, as none of them were found across all recipes. Additionally, the four different texts contained these components in varying frequencies; this variation appears to correspond to the texts' origins as either vernacular or Latin translations. Before discussing the components in detail, I will provide a brief overview of the components' relative frequencies.

As the following breakdown will show, the recipes examined exhibited various levels of prototypicality[4] and optionality. An example of a recipe which can be considered prototypical while demonstrating the optionality of components is the fifth recipe in section iii.2 of the *Læceboc.* This recipe reads,

(1) Þiþ þon ilcan ʒenim ele. Ʒenim eac ʒose rysele ʒeot on þonne ʒepit þa sar apeʒ. (Cockayne 1865, vol.2, 40).

"For the same, take oil, take also goose grease, pour into [the ear], then the sore departs."

In this instance, several components are clearly discernible:

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[4] For the purposes of this study, I assume that increased frequency of components equates to greater prototypicality of the recipe.

"Þiþ þon ilcan ʒenim ele. Ʒenim eac ʒose rysele ʒeot on þonne ʒepit þa sar apeʒ."

heading   herb list   administration   efficacy statement
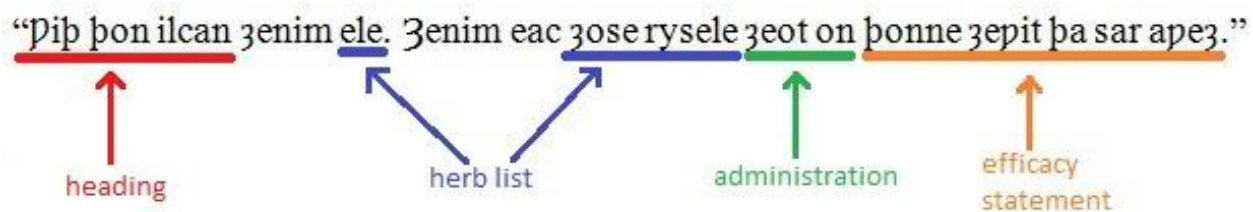
Though these four components are identifiable, the preparation component is absent. This level of optionality is representative for the other recipes examined in the texts; the components appear with varying frequencies, as is demonstrated by the table below:
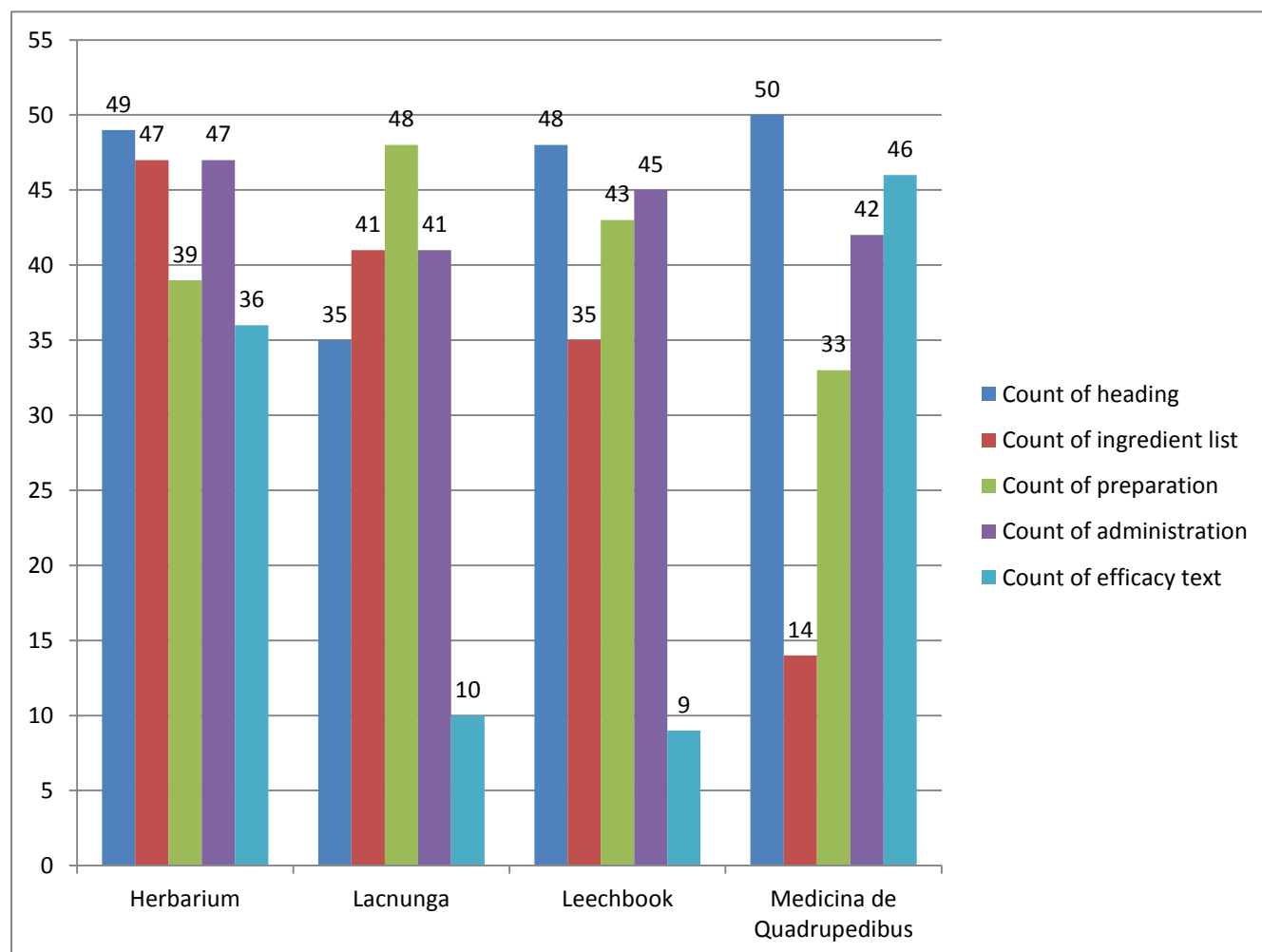

Figure 1: Frequency of Structural Components in Texts

As Figure 1 shows, different medicinal texts contain the various components in different ratios. Overall, the texts with Latin origins contain more structural components than those of vernacular origins. Each text contained the possibility of 250 positive entries: five different component fields – heading, ingredient list, preparation, administration, and efficacy statement – for the 50 recipes examined in each volume. The *Herbarium* contained the most components overall, for a total of 218 out of 250 possible positive entries or 87.2%, and the *Medicina de Quadrupedibus* followed with 185 positive entries or 74%. In comparison, the *Læceboc* only contained 180 positive entries or 72%, and the *Lacnunga* contained 175 positive entries or 70%. This discrepancy implies that the texts with Latin origins contained higher instances of the components overall, suggesting a less optional approach to structural organization. This finding indicates that the text category is variable in terms of organization: different texts approach recipe structure in different ways and with varying degrees of prototypicality and optionality.

This conclusion, however, is more complicated than this simplistic breakdown of frequency of components. It is also valuable to investigate whether the pattern holds when the most variable components are eliminated from consideration. Of the five component fields, the efficacy statement and the ingredient list show the most variation. As discussed previously, the efficacy statement's frequency varies dramatically, from a high of 46 occurrences in the *Medicina de Quadrupedibus* to a low of only nine occurrences in the *Læceboc*. Similarly, the ingredient list also varies in frequency, from a high of 47 in the *Herbarium* to a low of 14 in the *Medicina de Quadrupedibus*. By removing each of these components from the final tally of positive entries, we can check whether the overall pattern of the texts with Latin origins more closely following the prototypical organizational pattern holds.

When removing efficacy statements from consideration, the pattern of organization changes dramatically. Though the *Herbarium* is still the most prototypical text with 182 out of 200 possible positive entries (91%), the *Medicina de Quadrupedibus* drops to the bottom of the pack with a mere 139 positive entries (69.5%). The *Læceboc* moves into second place with 171 positive entries (85.5%), and the *Lacnunga* follows with 165 positive entries (82.5%). Clearly, when removing efficacy statements, a component which occurs much more frequently in the text with Latin origins, the pattern of Latin translations as more prototypical texts no longer holds.

The ingredient list component also shows great variation, probably because of the texts' varying organizational strategies. While the *Herbarium* and *Medicina de Quadrupedibus* are organized according to the main ingredient of each recipe, the *Lacnunga* and *Læceboc* are organized according to the ailment type. With this difference in organizational strategy in mind, it seems logical to assume that the texts organized according to ingredient would not require restatement of the ingredients in subsequent recipes unless additional ingredients are added. This expectation is substantiated in the *Medicina de Quadrupedibus*, which only contains 14 ingredient list components, or 28%, but is completely disproven by the *Herbarium*, which contains 47 positive entries for the ingredient list component, or 94% – the highest number across all texts.

I found that while the *Medicina de Quadrupedibus* frequently specifies the ingredients to be used in each recipe, it does so by presenting the ingredients, modified by past participles, as part of the preparation component. For example, recipe 16 in section V of the *Medicina de Quadrupedibus* reads,

(2) Wið þæt cildum butan sare teð wexen, haran brægen gesoden, gnid gelome mid þa

toðreoman, hi beoð clæne 7 unsare (de Vriend 1984, 250).

For the children for whom sore teeth grow, rub boiled hare's brain repeatedly on the

gums, they will be clean and unsore.

In this instance, the ingredient – *haran brægen* – is presented not as part of an ingredient list, but in the context of being *gesoden*, or cooked. This construction skips the step of gathering ingredients together in favor of indicating that some preparation is already occurring. Grund has also noted this phenomenon in his study of Middle English alchemical recipes; he suggests that the "instructions given with the help of past participles may be considered backgrounded, since they are not in the foregrounded, main line of the temporal instructive sequence" (2003, 463). Moreover, he posits that this backgrounding may be intended to compress language or retain instructive focus; this argument may also be extended to the instances of this construction found in these texts. This participial construction occurs in all texts, but most frequently in the *Medicina de Quadrupedibus.*

Another commonly employed strategy is to simply refer back to the main ingredient of an earlier recipe, e.g.

(3) þam gelice þe hyt her bufan gecweden ys, smyre þæt heafod… (*Medicina de*

Quadrupedibus IV.2, de Vriend 1984, 244).

For the same thing that is named here above, smear the head [with it].

Given the unique prevalence of these constructions in the *Medicina de Quadrupedibus*, we can examine the overall frequencies of components in the texts while excluding the ingredient list component. This returns the analysis to the conclusion that the texts with Latin origins demonstrate more prototypical organization: the *Herbarium* and *Medicina de*

Quadrupedibus lead with 171 positive entries in each text (85.5%), while the *Læceboc* and *Lacnunga* lag with 145 and 134 positive entries, respectively (72.5% and 67%). By excluding the ingredient list component, whose count is clearly affected by the fact that its semantic content may be subsumed by other components such as preparation, the data show yet another image of the frequency breakdown for the texts' various levels of containing each component: the Latin translations exhibit more structural prototypicality, while the vernacular texts lack the same degree of component inclusion. This pattern may indicate that English recipes and Latin recipes follow different textual conventions.

When both efficacy statements and ingredient lists are excluded, leaving the heading, the preparation, and the administration components, yet another pattern emerges. With only the three most frequently occurring components being tallied, the *Læceboc* appears to be the most prototypical text with 136 out of 150 possible positive entries (90.7%), followed closely by the *Herbarium* with 135 positive entries (90%). The *Medicina de Quadrupedibus* and the *Lacnunga* have fewer, yet nearly equal numbers of positive components, with 125 and 124 positive entries (83.3% and 82.7%), respectively. These findings complicate the idea of Latin-derived texts as more prototypical, suggesting instead that the texts' relative prototypicality depends more on this group of core components rather than the overall number of components included. Following this argument, the fact that all texts include at least 82% of possible entries when reduced to their most common components indicates a greater degree of standardization across texts than suggested by the initial tallies.

Though some components show large degrees of variation, others are relatively static across all four texts. Since scholars of Middle English recipes have found the preparation component to be obligatory, I expected it to display the most consistency across texts. Instead, it

varied up to nine instances; the *Medicina de Quadrupedibus* had the fewest with 33 instances, or 66%, while the *Lacnunga* led with 48 instances, or 96%. The *Læceboc* had 43 instances, or 86% occurrence. The biggest surprise was the *Herbarium*, which had the greatest number of instances for the heading (49, 98%), ingredient list (47, or 94%), and administration (47, or 94%) components. However, it only had 39 instances of the preparation component – a 78% incidence of occurrence, and the second-lowest number overall.

All of these results show that while the preparation component may be obligatory for Middle English recipes, it, like the other components, is optional in Old English recipes. Even the *Lacnunga*'s 48 instances fail to demonstrate a completely obligatory nature for the component, and the *Medicina de Quadrupedibus*'s 33 instances mean that that text only includes preparation instructions 66% of the time.

Instead, administration proved the most consistent component, with a range of only five instances across texts. As previously mentioned, the *Herbarium* had the most occurrences of the administration component with 47 instances. The *Læceboc* followed with 45 instances, and the *Medicina de Quadrupedibus* and *Lacnunga* round out the pack with 42 and 41 instances, respectively. Though the administration component is also not obligatory, it demonstrates the most consistency of any component analyzed in this study. This finding contrasts with the work of previous scholars dealing with Middle English texts: while Hunt (1990) and Grund (2003) found "application" and "result," the most closely related categories in these scholars' studies, to be optional, Stannard (1982) and Mäkinen (2004) both find administration to be an obligatory component.

Indeed, these Old English medicinal recipes fail to demonstrate *any* obligatory components. As Figure 1 shows, no component appears 100% of the time across all texts.

Indeed, only one component appears 100% of the time even within a single text: the highest occurrence of a component within a text is the 50 instances of the heading in the *Medicina de Quadrupedibus*. Though other scholars all have found preparation to be an obligatory component, many allow that variation can occur. For example, despite adopting Stannard's components as a basis for his research, Grund (2003) finds that "the organizational strategy of the recipes does not exhibit a fixed pattern," and allows that "there may also be a certain degree of overlapping between the components and some of them may occur several times in the recipes" (458).

It is also important to consider that all of the scholars whose research is outlined in Carroll's table formed their views of optionality from the study of various Middle English texts; none of them focused exclusively on Old English texts, much less on Old English medicinal recipes. As Mäkinen notes in his study of intertextuality (2004), "it is unlikely that the influence of Old English manuscripts would have carried over to the period between Old English and Middle English; rather, the intertextuality is based on the same Latin translations recopied and retranslated in the Middle English period" (152). If we accept Mäkinen's view that Old English texts would have had little direct linguistic influence on their Middle English successors, it is less surprising to find variation in optionality and prototypicality. However, as my data show, there is a good deal of similarity between the organizational structure and the semantic content of these Old English recipes and the Middle English recipes which have been studied by other scholars. This may suggest that Old English recipes exhibit a greater degree of linguistic influence on Middle English recipes than argued for by Mäkinen's theory of Latin retranslations; though no textual evidence exists to provide a direct link between Old English and Middle English recipes, transmission of the material may have been occurring nonetheless.

4.2. Heading

The heading typically consists of a starting word and a description of the ailment that the recipe deals with; a representative example is,

(4) Þiþ pearhbræðan (*Læceboc I* xxxiv.2, Cockayne 1865, vol. 2, 80).

"For warty eruption"

Either of these elements may be absent, however; for example, we find a recipe without a starting word beginning

(5) Drænc ᵽið ðeore… (Cockayne 1865, vol. 3, 28).

"A drink against the "dry" disease…"

in the *Lacnunga*, section 39 and another without an ailment listing beginning,

(6) "To gehwylcum…" (De Vriend 1984, 270).

For the same…

in the *Medicina de Quadrupedibus*, section xiv.9. In the example from the *Lacnunga*, the ailment is explicitly stated, but no starting word marks the beginning of the recipe for the reader; instead, the author specifies the type of remedy to be created from the recipe (*drænc*) rather than simply using a starting word to introduce the ailment. The example from the *Medicina de Quadrupedibus*, on the other hand, is third in a series of recipes detailing how to treat bites from a mad dog, so the ailment is not specified despite the inclusion of the prepositional phrase.

The starting word sub-component of the heading appears consistently across all of the texts examined: of the 50 recipes analyzed from each text, 49 (98%) of the recipes from the *Herbarium*, 48 (96%) from the *Læceboc*, 47 (94%) from the *Medicina de Quadrupedibus*, and 31

(62%) from the *Lacnunga* began with a starting word, for a total of 175 occurrences out of the 200 recipes. These numbers correspond relatively closely to the number of recipes specifying an ailment: 46 (92%) from the *Herbarium,* 35 (70%) from the *Læceboc*, 48 (96%) from the *Medicina de Quadrupedibus*, and 29 (58%) from the *Lacnunga* specified an ailment by name in the heading, for a total of 158 occurrences.
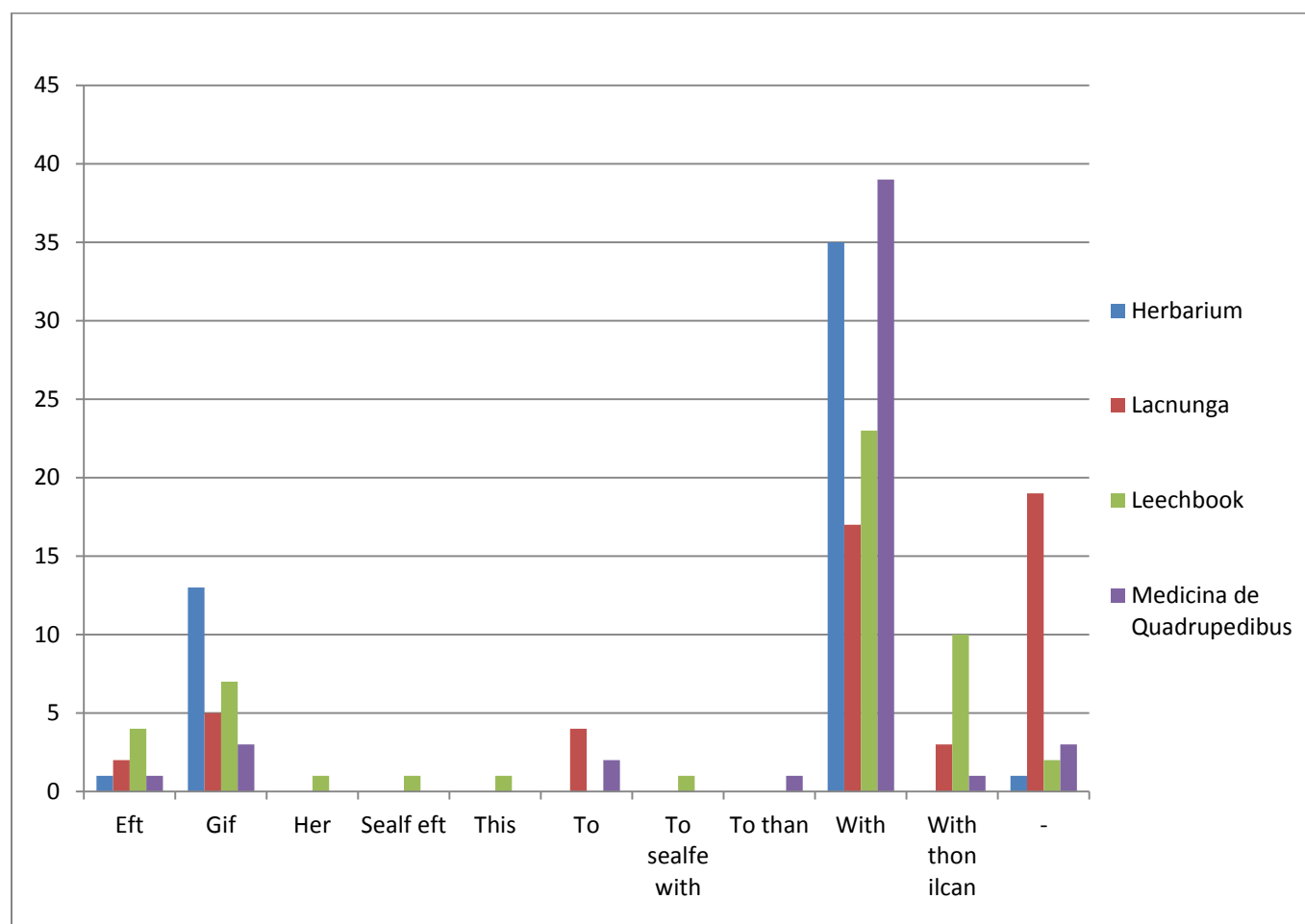

Figure 2: Starting Words' Frequency Across Texts[5]

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[5] The results in Figure 2 were obtained by standardizing spellings across recipes (e.g. *gyf* and *gif* are both represented as *gif*, and *wiþ* and *uiþ* are both represented as *with*) and by deleting semantically empty *eft* adverbs which appeared before other recognized starting words (e.g. *eft* was omitted from the analysis for recipes beginning with *eft wiþ, eft to, eft gif,* and *eft wiþ þon ilcan* to yield *wiþ, to, gif,* and *wiþ þon ilcan*). Where no other prepositions followed *eft*, the *eft* adverb was left unchanged in the data.

The starting word component exhibits some variation across the different texts. As Figure 2 shows, there are several different prepositions, adverbs, and even phrases that may appear in the recipe-initial position. Clearly, *wiþ* is the most popular starting word, followed by *gif*. It is also interesting to note the various texts' reliance on different words to introduce new recipes; for example, *gif* is much more common in the *Herbarium*, while *wiþ þon ilcan*[6] is more popular in the *Læceboc*. Indeed, the *Læceboc* exhibits the most variation in starting words; it is the only source for *her, sealf eft,* and *þis*, and the only text to use eight out of the ten identified starting words. In comparison, the *Herbarium* uses three, the *Lacnunga* uses five, and the *Medicina de Quadrupedibus* uses six. This finding fits well with the *Læceboc*'s origin as a compilation rather than a text with a single author or compiler – the variety of sources may produce a variety of possible starting words.

The use of prepositions and adverbs as starting words varies from other scholars' findings for the heading. For example, in Grund's study, he finds that the most common type of heading in alchemical recipes is a noun phrase (30%), followed closely by infinitives (25%) (2003, 459). This difference may be attributable to the different subject matter addressed by the recipes; Grund's examples of headings both give alchemical processes as the recipe's purpose,[7] while medicinal recipes are directed towards a specific ailment. Many scholars, including Stannard (1982) and Hunt (1990), discuss the presence of a heading without analyzing the syntactic components included in various headings.

This analysis of different starting words raises the question of what different rhetorical effects the different prepositions and conjunctions produce. In order to tackle this issue, I charted

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[6] I separate *wiþ* from *wiþ þon ilcan* despite their semantic similarity due to their different behavior with regard to complementation, as shown in Figure 3.

[7] Grund's example of a noun phrase is "A citrinacion" (citrinacion = the process to make something yellow i.e. the color of gold), and his example of an infinitive is "To make lune in mercurie cru current" (lune = silver) (2003, 460).

the various starting words according to whether or not they were followed by a statement of the ailment to be addressed by the recipe:
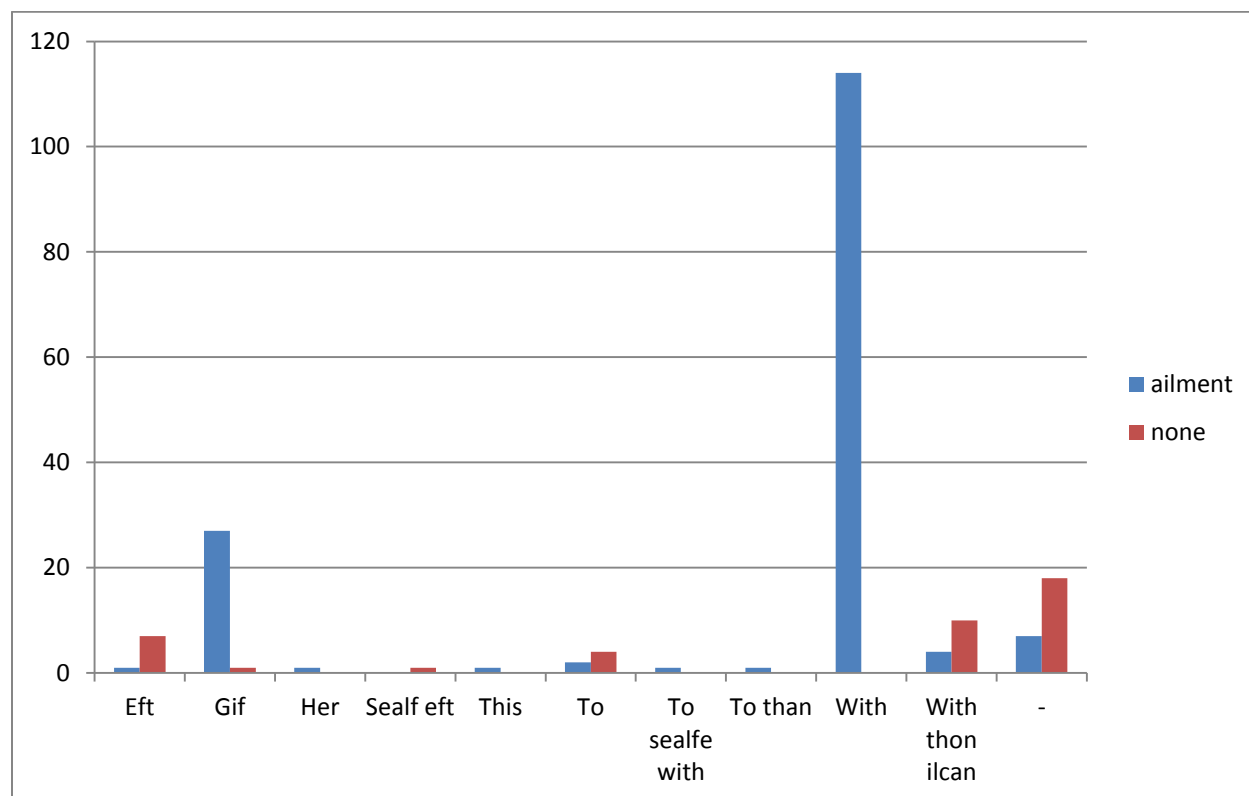
Figure 3: Starting Words' Correspondence to the Ailment Component

The above chart shows how different starting words appear to demonstrate different textual functions. All of the starting words demonstrate the textual function of signaling the following text as a member of the recipe genre; when encountering a text with a heading of a starting word + an ailment listing, an Old English reader would presumably know to expect a medical remedy to follow. However, different starting words appear to have different specific textual functions.

Some starting words, such as *wiþ* and *gif*, appear predominantly when an ailment name is present in the heading. One example can be found in the *Lacnunga*, recipe 55.1:

(7) Gyf þin heorte ace… (Cockayne 1865, 42).

"If thy heart ache…"

However, other starting words and phrases such as *eft* and *wiþ þon ilcan* more frequently appear where no ailment specifically named. For example,

(8) Eft þæt sylfe be ðam wyrttruman… (*Herbarium* lxix.1b, de Vriend 1984, 110).

Again the same about the root…

It is logical to assume that readers of these medicinal texts would have enough knowledge of the recipe genre to recognize the textual signals sent by these different words; if a reader encountered a recipe beginning with *gif* or *wiþ*, that reader could expect an ailment to be listed, whereas recipes beginning with *eft, wiþ þon ilcan,* or no starting word would require the reader to locate the ailment description either in a preceding recipe or from outside knowledge.
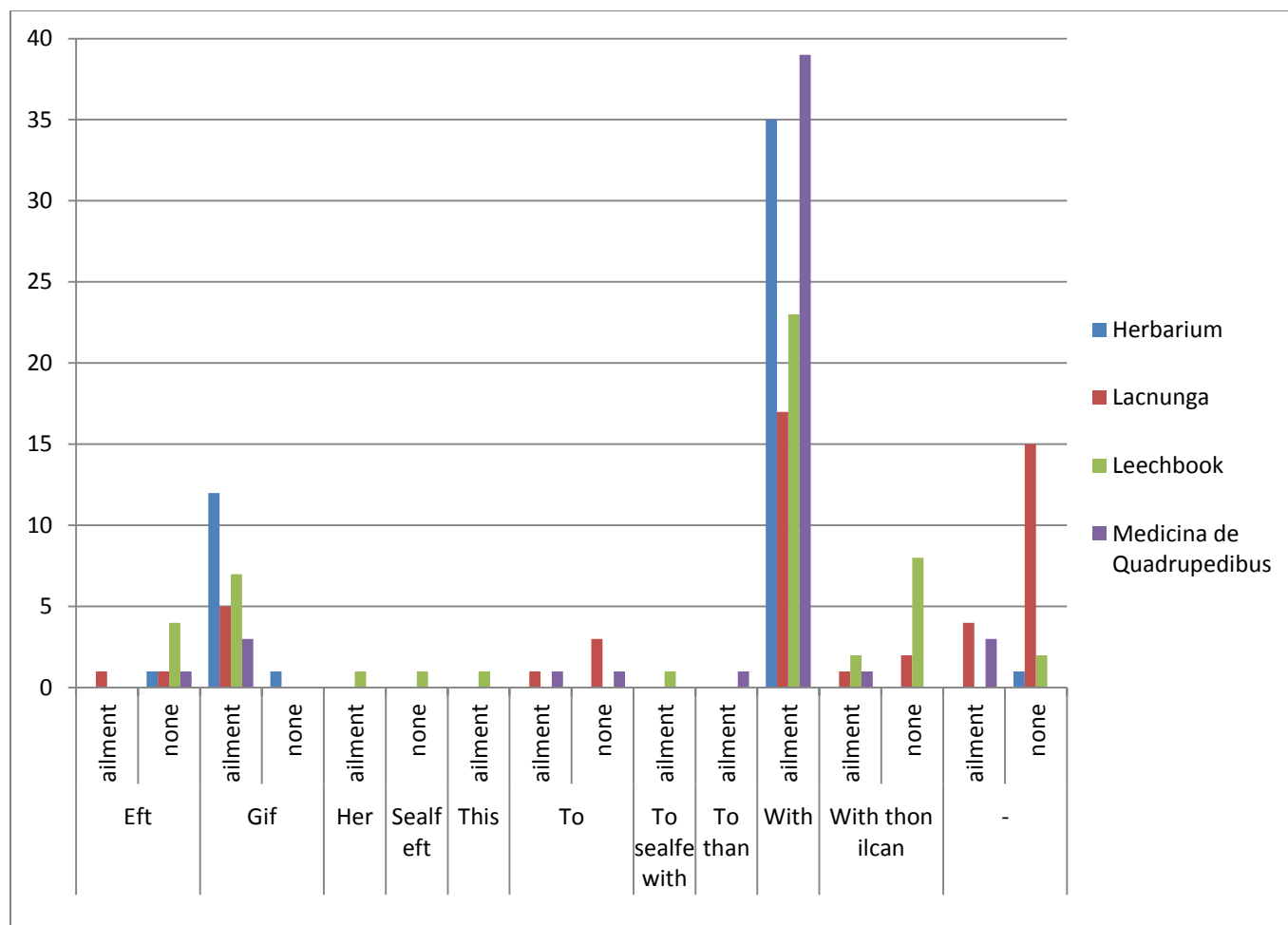
Figure 4: Starting Words' Correspondence to the Ailment Component Across Texts

The starting words' complementations also appear to vary across books. The above chart,

Figure 4, demonstrates the various texts' use of starting words and their correspondence to

whether or not an ailment listing will follow in the heading. This chart clarifies how the starting

words' apparent textual effects, while relatively constant, nonetheless varied across texts. One

illustrative case is the inclusion or exclusion of an ailment listing in recipes which lack a starting

word. As the figure shows, the absence of a starting word signals a corresponding lack of an

ailment listing in the *Lacnunga*, the *Læceboc*, and the *Herbarium*, but appears exclusively with

recipes whose headings include an ailment listing in the *Medicina de Quadrupedibus*. However,

this is the most dramatic example of varying complementation; starting words' correspondence

to ailment listing is not always significant. For example, while *wiþ þon ilcan* more frequently appears without a specific ailment in the *Læceboc* (two instances specify an ailment, while eight do not), the phrase fails to exhibit the same pattern in a measurable way in the *Lacnunga*, as one instance is followed by a specific ailment while two are not. The following example from the *Læceboc* iii.3 illustrates an instance of *wiþ þon ilcan* appearing without a specific ailment description:

> (9) Ƿiþ þon ilcan ȝenim beolonan seaƿ… (Cockayne 1865, 40).
>
> "For the same, take juice of henbane…"

Rather than specifically name an ailment, the heading simply designates that it is for treatment of *þon ilcan*, a reference to the ailment specified in the first recipe of the section iii.2,

> (10)   Ƿiþ earena sare 7 ece… (*Læceboc*, Cockayne 1865, 40).
>
> "For sore and ache of ears…"

The solitary instance of *wiþ þon ilcan* in the *Medicina de Quadrupedibus* appears accompanied by a specific ailment description, thus further demonstrating the difficulty in drawing concrete conclusions. Overall, though, the type of starting word used seems to correspond to the way that word is complemented (or not) by a specific ailment description.

4.3. Ingredients

After the heading, many recipes contain a list of the major ingredient(s) required for the recipe. This section can range from one ingredient to a list of many different ingredients, and it is commonly preceded by an imperative form of *niman* or *geniman*. A typical example of an ingredient list can be found in the *Lacnunga*:

(11)   ʒenim ʒaʒel 7 marubian 7 acrimonian… (*Lacnunga* 27, Cockayne 1865, vol. 3,

22).

"take sweet gale and marrubium and agrimony…"

This section appears to function similarly to a modern recipe's ingredient list, allowing the

reader to gather the necessary materials before beginning preparation. However, this element

also allows for variation; when an ingredient list is absent, the ingredients may also appear

during the preparation component of the recipe. The preparation component may also allow the

author to insert additional ingredients as needed, even after the initial ingredient list has been

completed. This practice has also been noted by Grund (2003). An example can be found in the

Herbarium, section XXIII.1:

(12)   Þið handa sare genim þas ylcan wyrte apollinarem, cnuca hy mid ealdum smerwe

butan sealte, do þærto anne scænce ealdes wines… (De Vriend 1984, 70).

For hand sores, take the same herb, glovewort, pound it with old grease without salt,

add thereto a sconce of old wine…

In this example, the initial ingredient list only includes *apollinarem*, and then the recipe moves

into the preparation section with the instruction *cnuca*. However, in the preparation step, the

recipe adds two new ingredients: *ealdum smerwe* and *anne scænce ealdes wines*.

The ingredient list shows substantial variation in its frequency across texts. Though it is

one of the less well-represented components, appearing in 137 of the 200 recipes, it occurs quite

frequently in some of the individual volumes. The *Herbarium* consistently contains a breakdown

of the necessary ingredients, with 47 out of the 50 analyzed recipes, or 94%. The *Lacnunga* and

Læceboc follow with 41 (82%) and 35 (70%) recipes containing ingredient lists, respectively,

while the *Medicina de Quadrupedibus* lags with 14 recipes or 28%. As previously mentioned,

these results do not divide according to source material; the two texts which are Latin translations contain the highest and lowest number of ingredient lists. This difference likely results from the *Medicina*'s organizational scheme, in which recipes are organized according to their main ingredient.
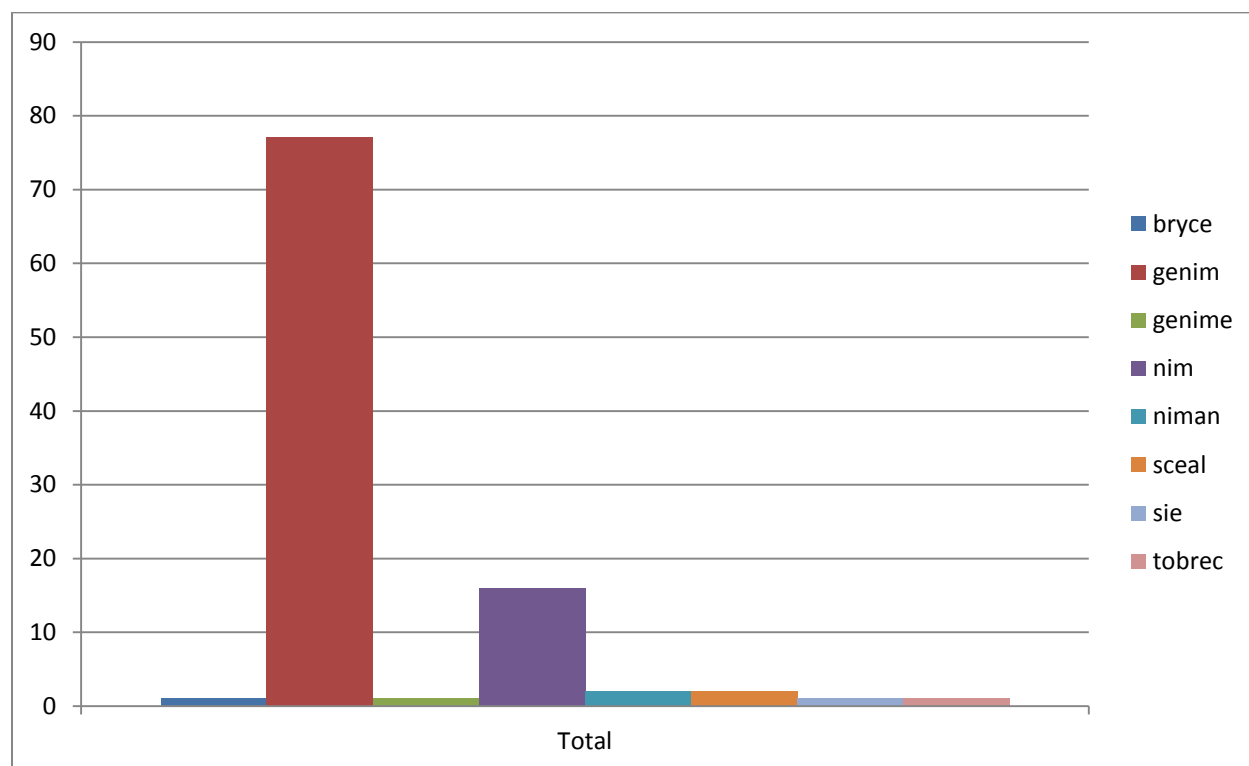
Figure 5: Imperatives, Prepositions, and Pronouns Preceding Ingredient Lists

Figure 5 shows the range of possible words and phrases which can be used to precede ingredient lists, as well as the overwhelming dominance of *genim* as a marker across the texts. Ingredient lists can be preceded by imperative verb forms, adverbs (*eft*), or articles (*sie*). However, the latter two grammatical classes account for only four and one instance(s), respectively; imperative verbs in general, and *[ge]nim* specifically, are responsible for the rest of the introductory markers for ingredient lists. This pattern becomes even more pronounced when imperative verb use across texts is analyzed by collapsing all the prefatory phrases beginning

with *genim* and all the prefatory phrases beginning with *nim*, as is shown in Figure 6 below. As that chart shows, *genim* accounts for the vast majority of imperative verb forms acting as introductory markers to the ingredient lists in the *Herbarium* and the *Læceboc*. *Genim* forms also dominate the *Lacnunga* and the *Medicina de Quadrupedibus*, but by a much smaller margin.
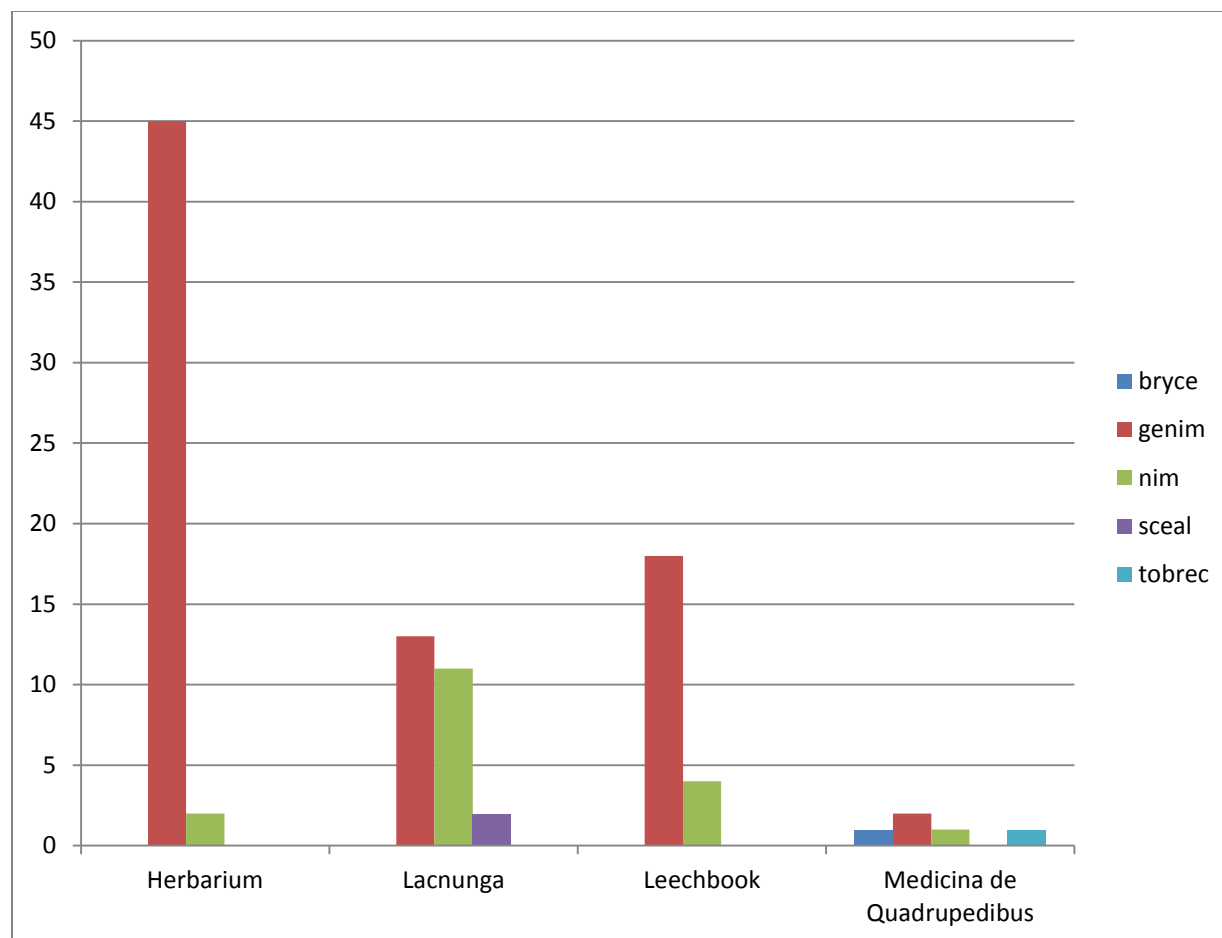

Figure 6: Imperative Verbs as Introductory Markers to Ingredient Lists Across Texts

Despite the texts' variations in imperative verb forms used in this context, the data make it obvious that imperative verb forms are frequently used to mark the beginning of the ingredient list component. Moreover, *genim* is the preferred imperative verb, with *nim* making up most of the balance of the introductory imperative verb forms. This pattern seems logical; the imperative

verbs *genim* and *nim* instruct the reader to "take" or "get" the following ingredients. The prevalence of imperative verb forms in recipes has been noted by a variety of other scholars including Carroll (1999, 32), Grund (2003, 463), Görlach (1992, 746), and Taavitsainen (2001b, 100). Taavitsainen even specifies "take" and "gather" as verbs belonging to "the technical lexis… specifying the manner of treating the ingredients" (2001b, 99-100). The fact that "take" and its semantically related counterpart "gather" are still recognized as core verbs in Middle English recipes demonstrates how these imperatives represent a continuing tradition in recipe texts, and their status as members of a "special vocabulary" hints that they may be fulfilling some additional textual function, to be discussed in Section 5.2.

4.4. Preparation

The next common structural component is preparation. This component is more difficult to define, as preparation can take a variety of forms depending on the recipe. The preparation section generally begins with an imperative action verb such as *(ge)meng,(ge)cnuca*, or *wyll*. As mentioned above, this section can also absorb some of the functions of the ingredient list, as when new ingredients are introduced during the process of preparation. Preparation sections can range from very short missives such as

(13)   mængc tosomne (*Herbarium* CXXXIX.2, De Vriend 1984, 180)

  "mix together."

to extended sets of detailed instructions which can even contain what Grund terms "sub-recipes," which may contain additional introductions of substances, procedures, and results (2003, 462). An example of a long preparation section containing an example of a sub-recipe is as follows:

(14)   ȝrinde þonne þa sealt spiþe smæl nime þonne þreora æȝra ȝeolcan spinȝe hit spiðe

toȝædere 7 leȝe hit vi niht þærto nim þonne eorð nafelan 7 ȝrunde spylian 7 capel leaf

7 eald smera cnuca þa eal to somne 7 leȝe hit þreo niht þærto nim þonne ȝearpan 7

grundespylian 7 bræmbelleaf 7 clæne spic cnuca to ȝædere 7…" (*Lacnunga* 54,

Cockayne 1865, vol. 3, 40).

"then grind the salt very small, then take the yolks of three eggs, whip it well up

together, and lay it for six nights to the blain, then take asparagus and groundsel and

leaves of colewort and old grease, pound all that together, and lay it for three nights to

the blain, then take yarrow and groundsel and bramble leaves and clean lard, pound

together and…"

The above example shows the level of complexity possible in the preparation component;

following the initial preparatory instruction, *ȝrinde þonne þa sealt spiþe smæl*, two different sub-

recipes follow outlining additional ingredients, preparations, and administrations before the

efficacy statement. Recipes such as this one complicate the idea of structural components due to

their multi-part sets of instructions which make it difficult to distinguish preparation from

administration.

The preparation component appears in the majority of recipes for all texts, for an overall

occurrence in 163 recipes out of the total 200. The *Herbarium* includes preparation in 39 out of

50 recipes (78%), the *Lacnunga* in 48 (96%), the *Læceboc* in 43 (86%), and the *Medicina de

Quadrupedibus* in 33 (66%). Interestingly, the texts which are Latin translations have lower

incidences of preparation, possibly due to their system of organizing recipes by main ingredient;

where the ingredient can reliably be counted on to remain constant throughout sections, it may

have seemed logical to contemporary readers to assume similar methods of preparation.

4.5. Administration

Administration is another structural component which can be difficult to nail down. At the same time, the administration component is one which appears the most consistently: I identified administration sections in 175 of the 200 recipes analyzed. In the texts I examined, the administration component generally begins with one of several set methods of administration, such as *drince*, *lege (on)*, and *smire (mid)*. Additionally, the verb *sellan* is used frequently in such constructions as *syle drincan* and *syle þicgean*; administration components containing an instance of "*syle* + infinitive" account for 42 of the 175 recipes containing administration components, or 24%. The administration component is also occasionally prefaced by the Tironian et, which may be used in this context to demarcate an episodic boundary between the preparation and administration components; this occurs in 33 recipes, or 18.9% of all recipes containing administration sections.
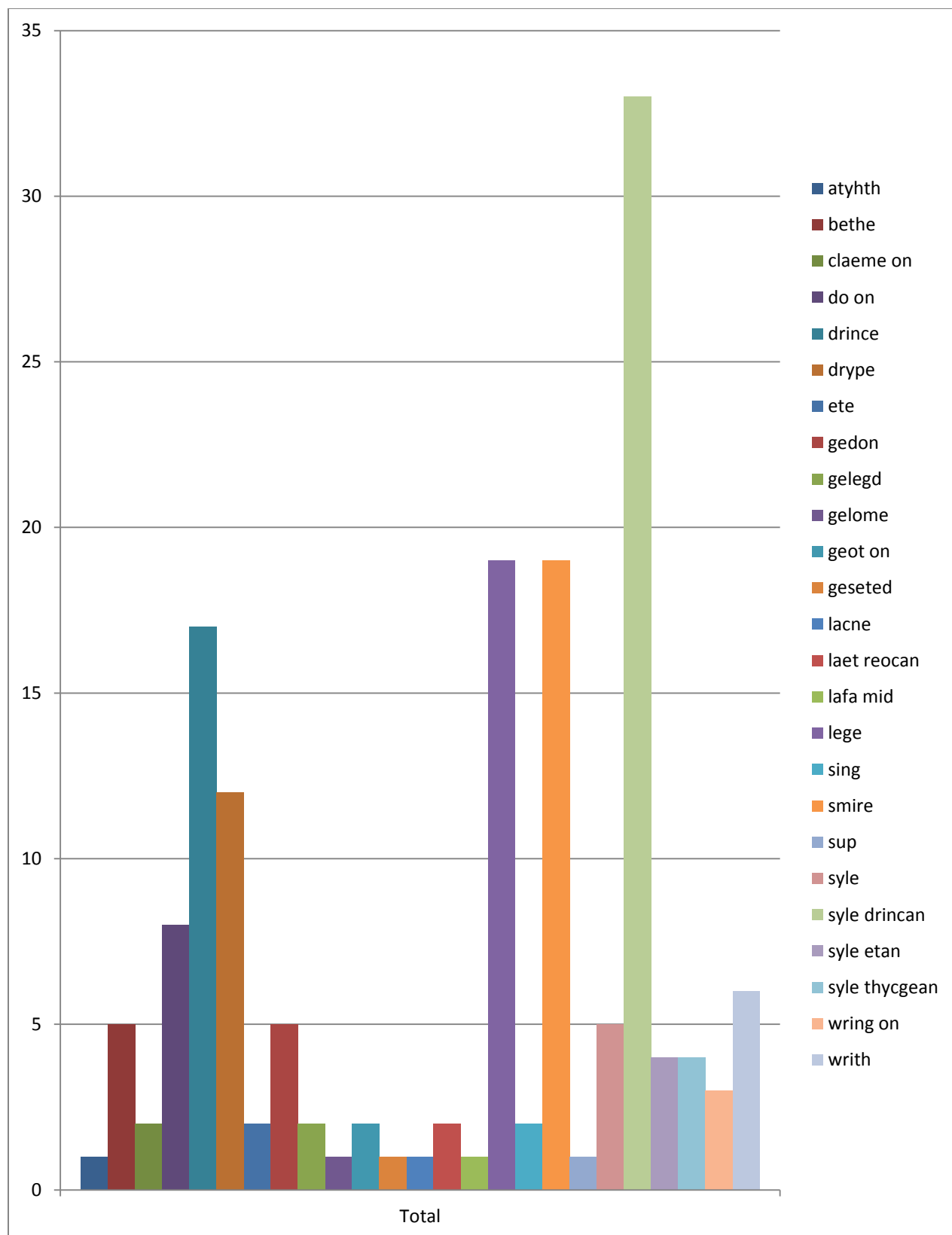
Figure 7: Verb choices, administration section

Above, Figure 7 shows the distribution of the various verbs used in the administration

component. As the chart shows, *syle drincan* is the most common verb phrase used, followed by

lege and *smire*. These results show that while a great deal of variation exists between

administration components, measurable patterns also exist. Together, the top three most common

verbs/verb phrases account for 71 of the 175 total administration components present, or 41%.

This finding indicates a degree of regularity which suggests that administration was somewhat

standardized as a component – perhaps more so than preparation, but less than the ingredient and

heading components. Not only is it the most consistently occurring component across texts, but it

displays some internal consistency, as well.

Additionally, verb choice in the administration component may have been used to signal

an implied result for the recipe or provide verification to the leech practicing from the book. An

administration component containing *syle drincan* implies that the result of the preparation

should be drinkable; if the practitioner had indeed obtained this result, he would know that he

had correctly executed the recipe. Grund also finds the possible linguistic effect of verification in

his "result" component, which he defines as "the statement of the result of the procedure

expounded upon in the recipes" (2003, 470).

4.6. Efficacy Statements

The efficacy statement is the least consistent component, appearing in 101 of the 200

recipes. Given other scholars' findings that the efficacy statement is a component often omitted

(Mäkinen 2004, 146; Jones 1998, 202), this was an unsurprising statistic. Though it is present in

barely half of all recipes examined, it is also one of the most interesting structural elements. With

the exception of a couple set phrases, notably

(15)   him bið sona sel[8] (*Lacnunga* 55.1, Cockayne 1865, 42).

         "It will soon be well with thee"

(16)   hit hæleþ wundorlice[9] (*Medicina de Quadrupedibus* xiv.2, de Vriend 1984, 270).

         It heals wonderfully.

These two set phrases account for seven and 23 of the 101 phrases, respectively. Efficacy

phrases vary widely in their form and content. However, drawing on Jones' classifications of

efficacy statements as "stock" or specific, I classified the statements based on whether their

focus is generic, as with a set phrase, or specifically tailored to the ailment, as in the following

example:

(17)   þonne sceal þæt sar liþelice þurh þone micgþan forð gan (*Herbarium* LXVIII.1,

         de Vriend 1984, 110).

         Then shall the sickness gently depart through the urine.

Some efficacy statements proved challenging to classify, as they did not address the

specific ailment, yet did not bear resemblance to any other phrases, thus defying classification as

stock phrases. For example,

(18)   þonne byþ heo geclænsod (*Medicina de Quadrupedibus* ii.4, de Vriend 1984,

         240).

         Then will she be cleansed.

This statement does not resemble any of the identified stock phrases, and the verb form

geclænsod is not found anywhere else in the text. However, this phrase also does not specify a

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[8] The phrase *him bið sona sel* can also appear without the adverb *sona.*
[9] Similarly, the phrase *hit hæleþ wundorlice* can be found without the adverb *wundorlice.*

specific ailment, opting instead for the generic sentiment of "cleansing" the woman rather than the departure of a specific affliction. When the different types of efficacy statements are considered, a new pattern emerges.
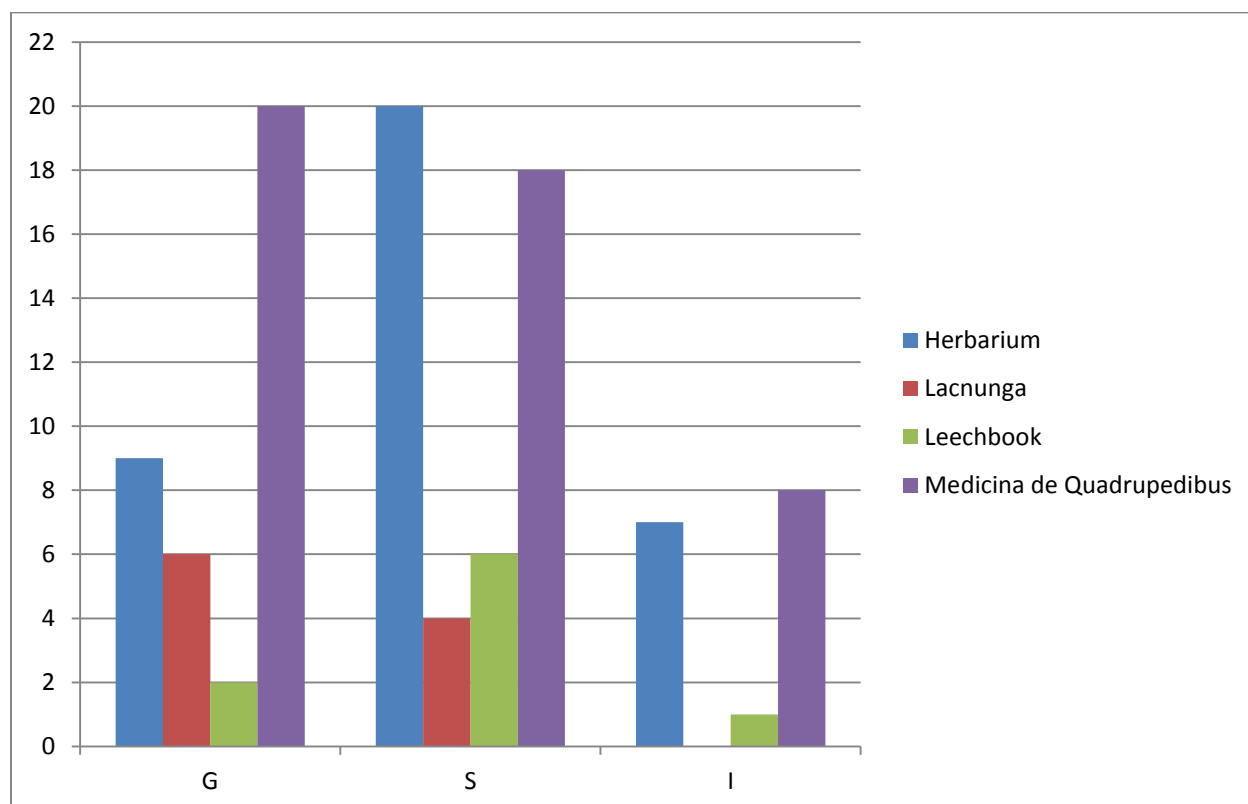

Figure 8: Frequency of Types of Efficacy Statements

As the above figure shows, the *Medicina de Quadrupedibus* has many instances of both generic and specific efficacy statements, with 20 and 18, respectively. This finding is not unexpected given that the *Medicina* also contains the most instances of efficacy statements overall, with a total of 46 efficacy statements. More interesting is the fact that the *Herbarium* displays a distinct preference for ailment-specific statements, with 20 specific and 9 generic statements. Though the Latin texts group together in that they both display considerably more

efficacy statements than their vernacular counterparts (46 for the *Medicina* and 36 for the *Herbarium*, as compared to 10 for the *Lacnunga* and nine for the *Læceboc*), they do not utilize efficacy statements in the same way. Like the *Herbarium*, the *Læceboc* also favors the specific statements, with six ailment-specific and only two generic instances. The *Lacnunga* does not share the *Læceboc*'s pattern, with six generic statements and four specific ones.

Jones' classification method for generic and specific efficacy statements indicates that these statements have different functions within the texts. Her article suggests that in certain contexts, generic efficacy statements may act as "proof phrases" intended to "attest to the value of a recipe through experience" (1998, 203). This view requires a different view of proof; as Jones points out, medieval proof could exist solely on the basis of the recipe having been tried and did not require deliberate empirical testing to verify results (1998, 203-204). On the other hand, Jones proposes that specific efficacy phrases can be used to offer further explanation of a recipe (1998, 205), in addition to fulfilling some of the proof functions of generic statements.

Though these functions may also be true for Old English medicinal recipes, the results of this analysis cannot substantiate such complex claims. However, these data show that these efficacy statements serve a two-fold purpose: their content acts to persuade the reader of the recipe's value, while their presence serves the organizational purpose of signaling the end of a recipe. The recipe found in section xiv.3 of the *Medicina de Quadrupedibus* serves as an illustrative example:

(19)   Wið geswel þæra gecyndlima hundes heafodpanne gecnucud 7 to gelegd, wundorlice heo hæleþ (de Vriend 1984, 270).

For swelling of the womb, dog's skull pounded and laid on, wonderfully it heals.

The efficacy phrase "wundorlice heo hæleþ" informs the reader that the remedy has value as a cure by asserting its healing power; at the same time, this generic efficacy phrase marks the end of the recipe. When encountering this efficacy statement followed by the *wið* preposition that begins the following recipe (*Medicina de Quadrupedibus* xiv.4, de Vriend 1984, 270), the reader would have an indication of the boundary between recipes.

5. Metatextual Markers

When beginning this study, I wanted to see if the recipes' content-based structure would also be signaled through linguistic markers. Though I did not find any of the Old English discourse markers specifically identified by Brinton to be present in the text[10], textual evidence pointed toward the possibility of metatextual markers[11]. Even if these metatextual markers did not entirely fit Brinton's definition of discourse markers, I expected them to fulfill some of her criteria. Though some level of metatextual discourse structuring can be observed in these texts, I did not find any conclusive evidence of any linguistic elements which can be classified as discourse markers occurring in the texts.

5.1. Starting Words

Starting words were promising candidates for metatextual markers. These starting words such as *eft*, *gif, to*, and *wiþ* fulfill some of Brinton's criteria for discourse markers; they are phonologically short, found in a sentence-initial position, and they are high frequency. However,

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[10] See the Background section for a breakdown of Brinton's identified discourse markers.
[11] I use the term "metatextual markers" to denote words and phrases that appear to serve an organizational function within the texts, yet fail to meet the definition of formal discourse markers.

unlike true discourse markers, they do affect the truth value of their recipes; for example, let us examine recipe xvii.1 from the *Læceboc*:

(20)   Þiþ heort wærce rudan ȝelm feoþ on ele 7 do alpwan ane yntsan to smire mid þy

þæt stilð þam sare (Cockayne 1865, 60)

"For pain in the heart, seethe a handful of rue in oil, and add an ounce of aloes, rub

[the body] with that, it stilleth the sore."

Removing the starting word *wiþ* from this recipe would affect the comprehensibility of the remedy. A recipe starting "For pain in the heart" clearly communicates its purpose to a reader, while a recipe beginning only with "Pain in the heart" does not make sense. *Wiþ*'s effect on truth value reflects the larger problem with starting words, especially prepositions such as *wiþ*. Prepositions are inextricably tied into syntactic structures due to the fact that they must necessarily be followed by an object – in this case, an ailment; this hinders the decategorialization and desemanticization necessary for these words to become discourse markers through grammaticalization.

However, the fact that recipes beginning with *eft*, *wiþ þon ilcan*, or no starting word are less likely to include an explicit description of the ailment hints that starting words are fulfilling a textual role. I submit that these starting words are used as metatextual markers to fulfill the role of starting discourse (as mentioned in Brinton 2010, 286). The starting word in the heading,

(21)   Wið wunda 7 wið cancor… (*Herbarium*, xxxv.2, de Vriend 1984, 80)

For wounds and for cancer…

clearly marks the beginning of the recipe as separate from its predecessor.

Despite these promising indicators that starting words function as metatextual markers, the lack of consistency for their occurrence between texts makes it difficult to draw firm conclusions. After all, while their rate of incidence is relatively stable at 98% in the *Herbarium*, 96% in the *Medicina de Quadrupedibus*, and 94% in the *Læceboc*, starting words are only found for 62% of recipes in the *Lacnunga.* Additionally, the distribution of starting words is also very uneven: *wiþ* accounts for the majority of instances with 35 out of the total 49 or 71% of all occurrences in the *Herbarium*, 17 out of 31 or 55% in the *Lacnunga*, 23 out of 48 or 48% in the *Læceboc*, and 39 out of 47 or 83% in the *Medicina de Quadrupedibus*.[12] The prevalence of *wiþ* weakens the case for considering any of the other starting words as metatextual markers. Since *wiþ* is only found with an explicit ailment listing,[13] it is tempting to claim that its specific function is to introduce recipes featuring new ailments. However, this theory is quickly disproven by many examples from the text; one such example appears in section ii.10 and ii.11 of the *Læceboc.* The only recipe in section ii.10 as well as the first two recipes in section ii.11 all begin with the same phrase:

(22)   Þiþ eaȝna miste (Cockayne 1865, 30).

       "For mist of eyes again."

These consecutive recipes all treat the same, specifically-named ailment and all begin with *wiþ*. This finding suggests that more research on the possible textual role(s) of *wiþ* is necessary in order to make a claim about its potential status as a discourse marker.

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[12] See Figure 2.
[13] See Figure 3.

5.2. *Genim* and *nim*

Genim and *nim* as they appear preceding ingredient lists also constitute potential metatextual markers. As previously mentioned, though *genim* appears before only 78 or 39% of all ingredient lists, it appears before 45 recipes in the *Herbarium,* or 90% of the recipes examined in that text.[14] Moreover, when considered together*, genim* and *nim* appear before the ingredient list in 96 recipes, or 48% of all recipes examined. One of these two words appears before 47 of the 50 examined recipes in the *Herbarium,* or 94%, 24 recipes (48%) in the *Lacnunga*, and 21 recipes (42%) in the *Læceboc*.[15]

The discussion of imperative verbs' organizational function in Section 4.3 mentions Taavitsainen's classification of the Middle English equivalents for *genim* and *nim* as members of a specialized technical lexis pertaining to recipes. This status, combined with the frequency of their appearance before ingredient lists, builds the argument that *genim* and *nim* possess some metatextual functions. Specifically, these imperatives seem to fulfill the textual role of marking the episodic boundary between the heading and ingredient list components. This role can be illustrated by an example from the *Herbarium*:

(23)   Wið ealra nædrena slite genim þysse wyrte dracontea wyrttruman, cnuca…

(*Herbarium* xv.1, de Vriend 1984, 60)

For all snake bites, take this herb dragonwort root, pound…

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[14] See Figure 6.

[15] The *Medicina de Quadrupedibus* contains only five imperative verbs before ingredient lists (though *genim* and *nim* account for three of these five, or 60%), and is therefore statistically insignificant in its use of *genim* and *nim.* Consequently, I will omit it from the current discussion, though its lack of imperative verbs in this position should be noted.

The above example shows *genim* marking the episodic boundary between the heading, *Wið ealra nædrena slite*, and the ingredient listing, *þysse wyrte dracontea wyrttruman*. Here, *genim* signals the reader that, with the ailment established, he should now go forth and retrieve the necessary materials before beginning the preparation process (which instructs him to *cnuca*, or pound, the ingredients).

Though this representative example and the many other recipes like it in the texts appear compelling, the question of frequency must again be considered before declaring *genim* and *nim* to be metatextual markers. Despite the high rate of occurrence in the *Herbarium*, it is important to remember that these imperatives appear in only 39% of all recipes, and only three times in the *Medicina de Quadrupedibus*. Additionally, these verbs fail to meet many of Brinton's defining qualities for discourse markers: they are easily classifiable by grammatical class, restricted in discoursal scope, and their scope does not include global units of discourse. The only qualities they embody are phonological "shortness," separation as an intonation unit, and a high frequency of occurrence (at least in some texts).

The question of whether *genim* and *nim* have been stripped of semantic content is difficult to resolve. On one hand, the verbs seem to imply an action such as "gathering" or "assembling" the recipe's ingredients rather than the literal meaning "to take." This suggests some semantic evolution in line with Traugott and Dasher's semantic-pragmatic tendencies, which attempt to explain the development of discourse markers (Brinton 2010, 298). In this instance, the meaning of *genim* and *nim* has evolved along the content>content/procedural>procedural trajectory; it seems to occupy a procedural semantic function rather than a content-based one. *Genim* and *nim* fulfill some of the functions and traits of discourse markers, but not completely enough to truly be considered discourse markers; at

best, they are metatextual markers, though even that classification seems to imply a greater degree of frequency than these texts demonstrate.

5.3 Generic Efficacy Statements

Generic efficacy statements also demonstrate some characteristics of discourse markers, despite being phrases rather than individual words. As discussed in Sections 3 and 4.6, generic or "stock" statements do not contain information specific to their preceding recipes and can therefore be appended to nearly any recipe (Jones 1998, 201). They therefore fulfill Brinton's criterion of loose semantic attachment to the host clause. Also, as discussed in Section 4.6, their function is only tangentially related to their semantic content, making them non-referential. Though they may fulfill the function of providing proof, as demonstrated by previous analysis, efficacy statements do not affect the truth value of their attached recipes. For example, consider recipe 108.1 of the *Lacnunga*:

(24)   Þiþ ʒedrif nim snæʒl 7 afeorma hine 7 nim þæt clæne fam menʒc þið pifer meolc
syle þicʒan him bið sel (Cockayne 1865, 70).
"Against fever, take a snail, and purify him, and take the clean foam, mingle it with woman's milk, give it [the man] to eat; it will be well with him."

In this recipe, the efficacy statement *him bið sel* could be completely omitted, and the recipe would still make sense, demonstrating the efficacy statement's lack of effect on truth value.

Though efficacy statements successfully fulfill the above criteria of discourse markers, they fail to fit many other criteria. As phrases, they can neither be phonologically short nor a separate intonation unit, and, as the previous analysis shows, they only appear in 101 of the 200

recipes examined, or 50.5%, so they cannot be considered high frequency. Their frequency is further called into question by the lack of efficacy statements in the *Lacnunga* and *Læceboc*; as Figure 1 shows, these texts contained only 10 and 9 instances, respectively (20% and 18%). Though efficacy statements appear to serve metatextual functions and successfully meet some of the criteria of discourse markers, their infrequent occurrence coupled with their phrasal nature makes it impossible to classify them as true discourse markers, or even as consistent metatextual markers.

In sum, though there are several items which act as metatextual markers in these texts, none of these elements meet Brinton's definition of discourse markers. Additionally, they do not occur with enough frequency to be decisively classified as such. The lack of a consistent system of metatextual markers to organize the recipes places more of the organizational burden on the component system. However, because the elements discussed above do fulfill some of the functions of discourse markers throughout the text, we can conclude that Old English recipes utilize both organizational strategies, albeit unequally.

6.   Conclusions

The preceding analysis demonstrates that Old English medicinal recipes follow a defined structure: heading (consisting of a starting word and an ailment listing), ingredient list, preparation, administration, and efficacy statement. This structure bears marked similarities to the organizational strategies scholars have advanced for Middle English recipes, especially Mäkinen's structural schema. However, Old English recipes do not possess any obligatory

components; instead, all components are optional, though some, such as administration, display less optionality than others, such as the ingredient list and the efficacy statement. This complicates other scholars' views of optionality and prototypicality by suggesting that Old English recipes have different structural conventions than later recipes. While comparisons to other scholars' schemata can be useful, one must consider that other work has largely disregarded Old English medicinal recipes to focus on a variety of recipes, medical and otherwise, from Middle English and later periods. However, the similarities in structure suggest a continuing textual tradition in contrast to Mäkinen's theory of Latin re-translations. Though it is true that no textual evidence exists to provide a direct link between Old English and Middle English recipes, this does not mean that English speakers stopped using recipes during that period. Instead, it is possible that other means such as oral tradition may have been used to bridge the gap; this scenario would explain the structural similarities between Old English and Middle English recipes and allow for an unbroken history of the genre.

Though this study yielded findings on structure, it failed to generate conclusive results with regard to discourse markers or other metatextual markers. Though *wiþ*, *genim* and *nim*, and generic efficacy statements demonstrate many of Brinton's features of discourse markers, this study lacks enough evidence to conclusively categorize any of these elements as discourse markers. However, further studies of these items in Old English medicinal texts may shed more light on their potential status as metatextual markers.

By evaluating Old English recipes' organizational strategies through empirical research, this study has added to the field of historical pragmatics and extended the history of the recipe further into the past. Since the existing research dealing with the recipe genre generally begins with Middle English texts, this analysis of Old English recipes helps add to the discipline of

historical pragmatics by building a diachronic perspective of the organizational strategies used in the genre throughout the history of the language. Though these findings show clear results for the component-based structure, additional studies with increased sample sizes could be conducted to more thoroughly examine the various syntactic strategies found in these recipes.

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