

## Chaucer's Repetends from The General Prologue of *The Canterbury Tales*

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The scale of Chaucer's habits of phrasal self-repetition—nearly 640 repeating exact phrases within the General Prologue alone, and over 460 linking it with the rest of the tales—exceeds by twenty-fold the tags, stock formulas, or proverbs previously recognized. Repetends appear, on average, once every line-and-a-half in its 858 lines. Computer analysis brings to light so many phrasal repetends that current explanations hardly account for them. Some do not survive beyond The General Prologue; most are repeated in later tales. Repetends appear to form semantic clusters, some of which convey aspects of Chaucer's world-view. They focus on meaningful topics (such as saying, telling, and speaking) and include proverbs and merisms, but seldom do clusters realize narrative elements of particular tales. In phrasal repetends that do survive, we may see fragments of what was successfully implanted by Chaucer's short-term, working memory in a declarative or procedural semantic memory, that is, phrases (not words), bound together by the context they share. The distribution of such repetends across Chaucer's works may help to date them because, as a system, repetends differ from one time in his life to another. (The General Prologue, for example, shares many more repetends than expected with The Manciple's Prologue and Tale and The Merchant's Prologue and Tale, so that they seem to have

been written at about the same period.) As a system, phrasal repetends may be a "fingerprint" of authorship.<sup>1</sup>

#### CRITICAL ATTITUDES TO PHRASAL REPETITION IN CHAUCER

Ralph W. V. Elliott, like Derek Brewer, Norman Davis, and others, attributes "stock phrases, clichés, tags," etc., to Chaucer, but many fewer than to medieval romances or Corpus Christi plays. Elliott notes about twenty instances, and Davis mentions just seven formulas, most inherited from anonymous bards. Brewer says that "Chaucer makes progressively less use of this traditional formulaic style as he develops his art."<sup>2</sup> No one since B. J. Whiting has tried to detect Chaucer's stock phrases.

While Larry Benson does not single out repeating phrases for

<sup>1</sup>I wish to acknowledge gratefully the generous support of the Social Sciences and Humanities Research Council of Canada in this research, and the warm encouragement and friendship of Professors Jan Svartvik and Magnus Ljung and my other friends at Lund and Stockholm universities during my visits in February 1991. I want especially to thank my Toronto colleagues Patricia Eberle and Fergus Craik for their helpful comments and warm encouragement.

<sup>2</sup>Ralph W. V. Elliott, *Chaucer's English* (London, 1974), p. 191. Elliott begins with *ParlF* usage ("I dar nat seyn," "I can na moore," "as I yow tolde," "as I shal telle," "as shortly as I can it trete" and "I wol yow seyn"; p. 192) and cites examples from various works afterwards: "also mot I the" (*Mars* 267; p. 192), "thurgh thikke and thurgh thenne" (RvT 4066) and "by stokkes and by stones" (*Tr* III.589; p. 193) and "And by that lord that clepid is Seint Yve" (ShipT 227 and SumT 1943; pp. 276-77). Elliott does not give references for the following tags: "for Goddes love" and "God help me so" (p. 266), "so God me save," "so God me wisse," "so God me speede" and "so God yow blesse" (p. 267), and "for Goddes bones" and "for cokkes bones" (p. 271). See Brewer's "Chaucer's poetic style," in *The Cambridge Chaucer Companion*, ed. Piero Boitani and Jill Mann (Cambridge, 1986), pp. 229-30. Norman Davis identifies "joye and blis," "joye and solas," "cares colde," "stille as ston," "bright in bour" and "over stile and stoon" ("Chaucer and Fourteenth-century English," in *Geoffrey Chaucer*, ed. Derek Brewer [London, 1974], pp. 76-77; 83-84).

comment in the introduction to *The Riverside Chaucer*, twenty of his notes to the General Prologue to *The Canterbury Tales* helpfully identify half a dozen kinds of repetition. Chaucer's "worthy" and "wys," for example, is termed a "common collocation."<sup>3</sup> Current language usage, or idiom, explains others, such as the Monk's "pulled hen": negative comparisons of this sort "are common in Chaucer and throughout Middle English."<sup>4</sup> The same explains "for the nones" (an intensive phrase, if not a "line-filler"), "out of alle charitee" ("merely idiomatic"), "good felawe" and "to shorte with."<sup>5</sup> "Merisms" or yoked contraries in Middle English, such as "thogh him gamed or smerte," is the third type.<sup>6</sup> The fourth derives from B. J. Whiting's ground-breaking study of Chaucer's proverbs.<sup>7</sup> Proverbs account for the comparisons "broun as a berye," "His *purchas* was wel better than his *rente*," and "He made

<sup>3</sup>*The Riverside Chaucer*, Larry D. Benson, Gen. ed., 3rd ed. (Boston, 1987), p. 801, n. to line 68 (cf. *Tr* 2.180). Another instance appears at *LGW* 171-73, cited for "Whan Zephirus eek with his sweete breeth / Inspired hath in every holt and heeth": a collocation of "Zephirus" and "swoote breeth" (*Riverside*, p. 799, n. to lines 5-6). Charles Fries and John Halliday popularized, especially in systemic linguistics, the study of collocations, both as distinctive, frequent yokings of two or more words in a sense different from their senses when they appear separately (e.g., "home runs"), or simply as frequently paired words without an abrupt change in their meanings (e.g., "nice" and "day," or "nice" and "fix").

<sup>4</sup>*Riverside*, p. 807, n. to line 177, which refers to WBT III.1112, "nat worth an hen," citations of Robert Whiting's work on proverbs, and an article by Hein in *Anglia* in 1893.

<sup>5</sup>*Riverside*, pp. 814 (n. to line 379), 820 (n. to line 545), 818 (n. to line 452; cf. KnT I.1623), 815 (n. to line 395; cf. GP I.650, I.648, and FrT III.1385), and 826 (n. to line 791; cf. I.3119, VI.345, VII.273).

<sup>6</sup>Lawrence L. Besserman, "Merisms in Middle English Poetry," *Annuaire Mediaevale* 17 (1976): 58-65; and *Riverside*, p. 820, n. to line 534.

<sup>7</sup>Bartlett Jere Whiting, *Chaucer's Use of Proverbs* (Cambridge, Mass., 1934).

the person and the peple his *apes*.”<sup>8</sup> The *Riverside* editors identify two more “proverbs”: “sette hir aller cappe,” despite its appearance only in *The Canterbury Tales*, and “If even-song and morwe-song accorde.”<sup>9</sup> The terms “tag” and “rhetorical formula,” the fifth type of generic repetition, apply to “clad in blak or reed,” “shortly for to tellen” and “what nedeth wordes mo.”<sup>10</sup> Finally, both “fees and robes” and “In heigh and lough” reflect separate linguistic registers, Latin financial and legal formulas, although no other English example in Chaucer can be found.<sup>11</sup>

Such attempts to explain repeating phrases abruptly fail before two basic problems. First, no one knows which phrases actually repeat. Second, no one has classified repeated phrases coherently. Scholars often assume that a phrase repeats itself, without checking to be sure that it does. For example, all merisms and “proverbs” do not necessarily recur. Unique examples, used once and abandoned, must occur. Potential merisms may never appear at all (for example, about people who are bald and who have full heads of hair). Are phrases such as “sette hir aller cappe” proverbial if we can only find them in one author, Chaucer? Whiting identified Chaucer’s phrases as proverbs, not because authors used them repeatedly (often he cited no evidence of repetition, inside or outside Chaucer’s works), but because they compared two things or were senten-

<sup>8</sup>*Riverside*, pp. 807 (n. to line 207; cf. CkT I.4368 and NPT VII.2843–44), 808 (n. to line 256; cf. RR 11566 and Rom 6838) and 825 (n. to line 706; cf. MilT I.3389, ShipT VII.440, and CYT VIII.1313).

<sup>9</sup>*Riverside*, pp. 821 (n. to line 586; cf. MilP I.3143 and RvP I.3911) and 826 (n. to line 830).

<sup>10</sup>*Riverside*, pp. 811 (n. to line 294, “Perhaps a tag”; cf. HF 1074–78), 826 (n. to line 843; cf. KnT I.875–88n), and 826 (n. to line 849; cf. KnT I.1029, 1715).

<sup>11</sup>*Riverside*, pp. 812 (n. to line 317) and 826 (n. to line 817).

tious. Until scholars know that something is repeated, they ought to refrain from saying that it is. The best tools to find repeating phrases, concordances and computer textbases accessed by retrieval systems, are not yet widely used in Chaucer studies, as they are in Biblical or Classical studies.<sup>12</sup> I propose to use them here.

Grouping phrases by features such as collocation, legal formula, and merism is like sorting people by male gender, a southern Ontario home address, and pastoral daydreams. Some people are female, many live on boats, and those who daydream of making money are not unknown. Each feature, then, is one possible instantiation of a more general characteristic. With phrases, these characteristics are verbal form, source, and semantic content. Verbal form may have two sub-forms—collocation (that is, a repeated phrase with shifting word order) or fixed sequence (that is, one with the same words in the same order). These sub-forms may be further subclassified by internal acoustic similarity (none, or some alliteration, rhyme, assonance, etc.), by ratio of function and content words, by inflectional or morphological variation, etc., but collocation cannot be mentioned without its alternative, the fixed phrase. Each repeated phrase may also be globally classified by its source: is it the speaker (that is, Chaucer) or someone else, either the general population, a subset of that (a linguistic register), or another person? In other words, who created the phrase, and who reused it? Idioms, poetic tags or formulas, and financial and legal phrases explain phrases by source. It is possible, however, that Chaucer invented a legal phrase, and that some poetic tags came from his wool customs office. Theory cannot predict source. Chaucer’s works must be compared with other English texts that

<sup>12</sup>Tatlock and Kennedy’s old published concordance of Chaucer’s works, for instance, is not listed by *The Riverside Chaucer* among “Dictionaries and Other Reference Works” (pp. 781–82), although works on proverbs by Skeat, Tilley, and Whiting find a place.

survive from the fourteenth century (and of course that evidence is fragmentary). Finally, a third global classification appeals to semantics, aspects of meaning. Merisms and proverbs fall into this category, but many other semantic relations exist in repetends.

In this article I will suggest that constraints of our working memory help explain the verbal form of repeated phrases but that only the semantics of long-term memory, rather than form or source, can account for the phenomenon. Besserman's work on merisms, then, points research in the right direction, although only after a full study of repeating phrases in the period will we be in a position to tell which semantic phrases belong to Chaucer and which to his sources.

#### CHAUCER'S PHRASAL REPETITIONS IN THE GENERAL PROLOGUE

Computer analysis of The General Prologue reveals that Chaucer reuses language at a high rate. There are 639 exact "maximal" phrasal repetitions within it.<sup>13</sup> Three in four lines, then, contain several words repeated elsewhere in this poem alone. If we looked for language from The General Prologue that occurred in the rest of Chaucer's works and allowed for variation in word order (that is, collocations) as well as in inflection, the number of repeating phrases would be higher.

Much of this repetition comes with English itself. Chaucer could not help but repeat function words such as determiners, prepositions, conjunctions, verbal auxiliaries, and pro-forms. Most

<sup>13</sup>That is, substrings of repetends are not included in this number unless their frequency is greater than the longer repeated phrase of which they form a part. For example, "a draughte of" (with a frequency of 2) makes unnecessary the inclusion of "a draughte" (same frequency) in this list, but since the substring "a good" occurs more often than the longer string "a good felawe," both are included in the count of 639.

common nouns occur after a determiner; it follows, then, that if Chaucer used a noun twice, he may have repeated a phrase. Dozens of function-word sequences also crop up: "after the," "al hir," "and a," "as dooth," "been at," "but he was," etc. For this reason I distinguish between unavoidable repetitions occasioned by using closed-class "grammatical" words and repetitions open to choice. Writers can select content or "open-class" nouns, verbs, and adjectives. A more accurate measure of Chaucer's degree of self-repetition, then, will be how often he re-used phrases or collocations with more than one content word.<sup>14</sup>

What should we expect to find? Of the 1,850 different words in The General Prologue—the poem's word types, or its vocabulary—Chaucer employs 67.3% once, 14.1% twice, 5.7% three times, and 3.6% four times *in that poem by itself*. That is, low-frequency words (of between one and four occurrences each) make up 90.7% of the poem. In modern English 50% of the vocabulary appears once only, and 80% one to four times. Chaucer clearly repeats single words to a much lesser degree than we do today.<sup>15</sup> One of Zipf's predictions of vocabulary distribution is that the product of multiplying the rank of a word in a descending word-frequency list, and the number of times the word occurs at that rank, should remain constant for all ranks. Chaucer's high-frequency words in ranks 1–3 are a third to a half of what they should be. Zipf also predicts that "*the number of different words in the sample must equal the number of occurrences of the most*

<sup>14</sup>Content analysis is described in *The Humanities Computing Yearbook 1989–1990: A Comprehensive Guide to Software and other Resources*, ed. Ian Lancashire (Oxford, 1991), pp. 489–97.

<sup>15</sup>Only 10% of Chaucer's vocabulary occurs more than four times, as against 20% in modern English. Gerard Salton, *Automatic Text Processing: The Transformation, Analysis, and Retrieval of Information by Computer* (Addison-Wesley, 1989), pp. 105–08.

frequently used word.”<sup>16</sup> The most frequent word in The General Prologue, “and,” occurs 348 times, far short of the predicted 1,850, the total word types. Since 120,000-word samples are regarded as best for Zipf’s predictions—“for smaller samples one finds too many words that occur only once”—we might expect *The Canterbury Tales* as a whole, about 182,000 words, to be a better test of Zipf’s prediction.<sup>17</sup> Yet its most frequent word, again “and,” occurs only 8,426 times, well below the total vocabulary of 12,164 different words.<sup>18</sup>

From the “behavior” of Chaucer’s vocabulary (individual words), then, we should not expect unusual phrasal repetition.<sup>19</sup> The figures, however, are startling. After eliminating repetitions in which function words dominate, I found 464 different phrases and collocations from The General Prologue that appear throughout *The Canterbury Tales*.<sup>20</sup> A different repeating phrase occurs, on average, every second line in The General Prologue. Each one comprises either at least four consecutive words, or at least two co-occurring content or “open class” words, or a prepositional

<sup>16</sup>John R. Pierce, *An Introduction to Information Theory: Symbols, Signals and Noise*, 2nd ed. (New York, 1980), p. 244.

<sup>17</sup>Ibid., p. 245. Pierce notes that the “law” works as predicted on a 340-word passage by James Joyce.

<sup>18</sup>Spelling variants and the increased inflection of Chaucer’s vocabulary may partly explain this effect. So may the genre, verse.

<sup>19</sup>I do not know of any estimate of the frequency of phrasal repetition in the language, although work has been done on individual authors. The total possible phrases in a poem 1850 words long (two-word, three-word, etc.) is 1849 + 1848 + 1847 . . . 2, or about 1.7 million, but this assumes that phrases as long as 1849 words are possible.

<sup>20</sup>I have not tried to identify phrases from The General Prologue that are repeated in Chaucer’s writings outside *The Canterbury Tales*.

phrase.<sup>21</sup> Otherwise, I usually exclude sequences with only one content word and one or two function words, such as “quod he.” With them, the number would have swelled to as many as there are lines in The General Prologue. Phrasal repetitions, unlike word repetitions, dominate Chaucer’s poetic: he had remarkable skill in constructing, varying, and using word-sequences and collocations.

#### TECHNICAL MATTERS

How does one collect all repetitions in The General Prologue? Resorting to concordances is not the answer. Reading through Tatlock’s concordance, entry by entry, will catch exact repetitions, but verbatim repeated phrases make up a small percentage of the total, in part because Middle English morphology dictates that nouns, verbs, and adjectives have different inflectional forms; and these appear in different concordance entries. There is some spelling variation as well. Second, collocations are hard to recover from a keyword-in-context (KWIC) concordance. Often a regular “collocate” to a given “node” word—the “node” is the anchor word in a collocation, and the collocate, which occurs before or after, is its “floating” partner—will appear outside the brief line that makes up the context for Tatlock’s typical concordance entry.<sup>22</sup> Third, some complex patterns of repetition are elusive because they combine inflectionally-diverse words and collocations. For this reason I use an interactive text-retrieval and analysis program on an electronic text of Chaucer’s tales.

I first had John Fisher’s edition of *The Canterbury Tales* con-

<sup>21</sup>“Open-class” words include nouns, verbs, and adjectives, not function words such as articles, auxiliary verbs, and conjunctions.

<sup>22</sup>This is a matter of perspective. Every node is, of course, collocate to its own collocates if the latter are viewed as nodes.

verted into a computer file with a Kurzweil 4000 optical scanner.<sup>23</sup> I subdivided the text into fifty-five sections, corresponding to the prologues, introductions, tales, epilogues, and other linking passages (for example, the Host's three interpolations); and these and other features were identified by means of tags or COCOA markers. A typical tag consists of opening and closing diamond brackets (these ensure that we do not confuse the tags with the text), a variable name (for the kind of thing the tag concerns) and a value (for the actual instance of the variable).<sup>24</sup> Afterwards I compared the Fisher edition of *The General Prologue* to the text employed by *The Riverside Chaucer*. The changes introduced only one new phrasal repetition ("as ye may heere," line 858).<sup>25</sup>

Then I used *TACT*, a text-retrieval and analysis program for MS/PC-DOS, to turn the tales into a textbase, which allowed me interactively—on the computer screen—to create indexes, concordances, and collocate tables (lists of all words occurring near a search word, ordered according to their strength of association) for any word, word pattern, or combination of these in the text.<sup>26</sup>

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<sup>23</sup>Unfortunately I do not have the publisher's permission to distribute this text. However, Oxford University Press plans to publish the electronic *Riverside* text.

<sup>24</sup>For instance, `<SHORTPOEMTITLE GP>` was added to the start of *The General Prologue* and tagged each word following—up to the next such tag (`<SHORTPOEMTITLE KnT>`)—as belonging to *The General Prologue*.

<sup>25</sup>Some repetitions in later tales may have been missed owing to differences between the Fisher and Riverside editions of the rest of the tales, but the proper way to handle these variants would be to go back to the original manuscripts. That was beyond the scope of my study.

<sup>26</sup>*TACT*, written by John Bradley and Lidio Presutti, with help from Michael Stairs, is available with a manual by writing the Centre for Computing in the Humanities, Robarts Library, University of Toronto, 130 St. George St., Toronto, Ont. M5S 1A5, Canada. *TACT* may also be obtained by FTP over the network. After accessing the Toronto server, "epas.utoronto.ca," and signing on as "anony-

*TACT*'s ancillary program, *COLLGEN*, permitted me to list every exact repeated phrase (from two to eight words long) throughout the 182,000-word poem.<sup>27</sup> When run on *The General Prologue*, *COLLGEN* produces 1695 entries for 639 exact repetends of between two and eight words long, although because the program indexes repetends alphabetically *under each word in it* and records all substrings of a repetend, for convenience of reference, the list has much redundancy.<sup>28</sup> I began identifying from this file all exact repetitions of any phrases in the total poem. Surprisingly, Chaucer repeated whole and near-whole lines. The *Riverside* edition notices nine of them, but at least another twenty-five exist.<sup>29</sup>

Using *TACT*, I manually searched the tales for each content word in *The General Prologue*, looking for collocations with other nearby words as well as searching each word's concordance for patterns of repetition. Because *TACT* allowed searching for "regular expressions" (word patterns with "wildcards"), I was able to collect all inflectional forms of a given word. In this way, query-by-query, the repetitions grew. After the first pass through *The General Prologue*, I roughly classified repeating patterns, sifted out strings of function words, and added prepositional phrases. While resembling single content words, prepositional phrases are idiomatic units.

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mous" with one's own computer name and address as the password, change directory to "/pub/cch/tact" and select the files for transferring.

<sup>27</sup>This program took four to five hours and 60 Mb of hard disk space to produce the list of repeated phrases in a file exceeding 4 Mb in size. An 86-386 MS/PC-DOS microcomputer was used.

<sup>28</sup>The phrase "he was a verray parfit," for instance, has six substrings around the key word "verray": *word* + "verray," "verray" + *word*, *word* + *word* + "verray," etc. This repetend will also be exhaustively indexed under "he," "was," "a" and "parfit."

<sup>29</sup>See Appendix. Asterisked repetends do not appear to be noticed in *Riverside*.

To record repetitions fully and precisely, I represented each by a special notation that included metacharacters employed in *TACT* search requests. These derive ultimately from UNIX regular expressions and, like “wildcards” in computer file management, retrieve different realizations of the same repeated pattern at once. Consider the first three repetitions in the list (Table I).<sup>30</sup>

Table I: First Three Repetitions

Ref. No.	Repetend	Locations	DB No.
1	( the   yonge   sonne   hath , that )   in   the   ram ) & y*ronne	GP 7-8; SqT 385-86	1
2	shoures & droghte	GP 1-2; MiIT 3196; SqT 118	2
3	corages* & pilgr[iy]images*	GP 11-12, 21-22; KnT 2213-14	3

This annotation preserves eight variants of the three phrases. An asterisk indicates that the preceding letter (e.g., “y” in “yronne”) may be present zero, one, or many times. The square brackets surround characters, only one of which may appear at this point (for instance, “[iy]” for “pilgrimages” or “pilgrimages”). A bar (“|”) means that the two words or phrases it links follow one another in that order. An ampersand (“&”) represents a collocation: that is, the two words or phrases it connects may appear together in any order (generally within ten words of one another). Finally, parentheses group words or phrases. This grouping has two aspects. The first and last parentheses in the first rule specify that the seven-slot sequence, not just the word “ram,” col-

locates with “y\*ronne.”<sup>31</sup> Second, parentheses group alternative words. For instance, the seven-word sequence described in the first “rule” varies in the fourth slot: “the yonge sonne” and “in the ram” are connected *either* by “hath” *or* by “that.”

Because *TACT* cannot do calculations on the 464 repetitions, I recast them as interrelated tables and imported them into *Quattro Pro 3.0*, a spreadsheet program, and into *Paradox 3.5*, a database management system. *Quattro Pro* does statistical calculations and displays them in graphs. *Paradox 3.5* shares files with *Quattro Pro* and produces subsets of the data tables.<sup>32</sup>

I have described these procedures to show that no program could automatically generate these results. Critical judgement accompanied every step of data collection. Decisions whether to conflate several patterns into one were not always obvious.<sup>33</sup> The graphs and any conclusions drawn from them thus follow from the “rules” on which they are based. Space prevents listing all the repetends here. For that reason I am making the tables available in ASCII delimited form for others to evaluate.<sup>34</sup>

<sup>31</sup>If the final parenthesis had been omitted, “y\*ronne” would collocate with just the word “ram.”

<sup>32</sup>*Quattro Pro 3.0* (1991) and *Paradox 3.5* (1990) are sold by Borland International, 1800 Green Hills Road, P.O. Box 660001, Scotts Valley, CA 95067-0001, USA. I selected them because they work together simply.

<sup>33</sup>For example, is the rule “( wel | ( ye , I ) | woot ) , ( wel & ( ye , I ) | woot ) , ( wel & woot | ( ye , I ) )” one pattern (as I believe) or two? Or would everyone agree that “( the | ho\*ly | blisful | martir ) , ( the | blisful | martir ) , ( the | ho\*ly | blisful | faire\* )” exemplify a single phrasal pattern?

<sup>34</sup>They may be obtained by writing the Centre for Computing in the Humanities, Robarts Library, 14th Floor, University of Toronto, 130 St. George St., Toronto, Ont. M5S 1A5, Canada. They are also available for downloading by FTP from the Toronto server (see n. 26 above).

<sup>30</sup>My main data files are available for FTP access from the host epas.utoronto.ca (subdirectory /pub/cch/chaucer).

## AN APPROACH TO REPETENDS

## Single words

Lucy B. Palache in *The Princeton Encyclopedia of Poetry and Poetics* defines "repetend" as "A recurring word, phrase, or line . . . usually . . . a repetition occurring irregularly rather than regularly within a poem, or to a partial rather than a complete repetition."<sup>35</sup> She did not coin this word. The *OED* traces it to the neuter gerundive of Latin *repetere* and identifies two English senses: the "recurring figure or figures in an interminate decimal fraction" (from 1714) and a "recurring note, word, or phrase; a refrain" (evidently a late nineteenth-century literary term). Because "repetition" suggests intention—like "formula," "proverb," and "tag"—I use "repetend," which indicates recurrence without implying a prior explanation for it.

Palache regards all words appearing more than once in a text as repetends. Of the 1850 word-types in *The General Prologue* (different word forms), about 600 appear more than once. Table II gives the forty-one most common lemmatized open-class words in this section of the poem, comprising frequencies 6–38.

Literary behaviorists normally use low-frequency open-class words to describe a work's content and attend less to high-frequency words, since "the value of a word as an indicator of text content is taken to be an inverse function of its frequency of occurrence."<sup>36</sup> Yet high-frequency content words, like high-frequency function words, hold *the writer's general assumptions* ab-

out society, human nature, and time because they permeate everything he describes.<sup>37</sup> As Derek Brewer says, stock phrases rest on "static" concepts.<sup>38</sup> They depend on stable beliefs, accepted from society or nurtured from within the writer himself.

Table II: High-Frequency Content Words in *The General Prologue*

38 m[ae]n (man, men)	9 beste*
21 ma*[dk]e*n* (make, made, etc.)	9 y*c[ao]me*t*h* (cam, cometh, etc.)
21 s[ae][iy]de , se[iy]e*n*t*h*	9 go*n , wente
(seyde, seyn, seith, etc.)	9 weye*
20 r[ioy]*de*n* (riden, etc.)	8 horse
18 goode*	8 lovede*
17 tel*e*t*h*n* (telle, etc.)	8 reed
15 faire*r*	8 thynges*
15 greet	8 tymes*
14 sp[ae]ke*n* (speke, spak, etc.)	8 wyn
13 worde*s*	7 berd
12 ba*re*n*t*h* (bar, bereth, etc.)	7 gold
12 b*i*g[ay]n*e* (bigan, gan, etc.)	7 knyght
12 right	7 povre
12 tales*	6 bet*r*e*
12 worthy	6 day
11 heed	6 eyen
11 lorde*s*	6 longe*
11 y[aei][fv]e*n* (yaf, yeven, etc.)	6 newe
10 do*n*t*h* (dooth, doon, etc.)	6 wiste
10 y*kn[eo]we*n* (knew, etc.)	6 wys

<sup>35</sup>*Princeton Encyclopedia of Poetry and Poetics*, ed. Alex. Preminger, Frank J. Warnke, and O. B. Hardison, Jr. (Princeton, 1974), p. 699.

<sup>36</sup>Salton, *Automatic Text Processing*, p. 111. A word occurring a hundred times has a value of 1/10, but one occurring twice has one of 1/2.

<sup>37</sup>William McColly, "The Book of Cupid as an Imitation of Chaucer: A Stylo-Statistical View," *The Chaucer Review* 18 (3) (1983–84): 239–49.

<sup>38</sup>"Chaucer's Poetic Style," p. 230.

For instance, men dominate women among the pilgrims; the most frequent open-class word is "man" or "men." Story-telling also pervades the poem: see words like "say," "tell," "speak," "words," and "tales" in the list. Means of travel appears in "ride," "way," and "horse." Complimentary adjectives—"good," "fair," "greet," and "worthy"—hint at Chaucer's diplomacy. It is impossible to be sure that *single* words such as "tell" and "tales," or "ride" and "way," of course, are any more closely related than "horse" and "good."

By looking for words that co-occur more often than expected in a random distribution, we see larger, more meaningful structures. Figure 1 graphs the associations among nineteen of the thirty-two open-class words among the ninety-five top high-frequency words, repeating from 9 to 238 times, in The General Prologue. Before searching for collocates I lemmatized the text, ensuring that all word-forms of the same root would be treated as the same thing.<sup>39</sup> This reduced the vocabulary from 1850 to 1401 words. Squares (nodes) on the graph represent the high-frequency words; circles represent the collocates they "attract." Arrowed arcs represent the direction of attraction. For example, three of the four occurrences of the word "curse" (in its various forms) appear within five words on either side of the word "man" (which occurs forty times). In order to compare words of differing frequencies, a z-score procedure ranked the collocates of any given high-frequency node word by descending strength of association.<sup>40</sup>

<sup>39</sup>Lemmatization reduced all nouns to their nominative singular, all verbs to the infinitive, and comparative and superlative adjectives to their uninflected form. In addition, words having more than one noun, verb, adverb, or adjective form (e.g., "worthy," "worthiness," and "worth," or "wise" and "wisdom") were conflated into one form.

<sup>40</sup>In 1973 Godelieve L. M. Berry-Rogghe published this method to order a word's collocates by strength of mutual association ("The Computation of Collocations and their Relevance in Lexical Studies," in *The Computer and Literary*

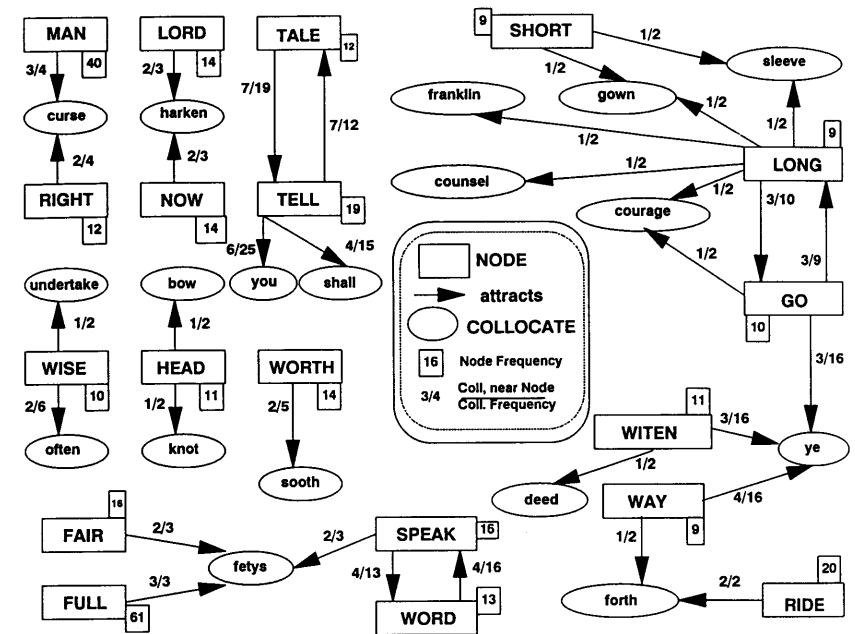


Figure 1. High-frequency Collocating Words in The General Prologue

Every pair of nodes joined by an arc represents repeated collocating terms in *The General Prologue*. Some structures, including "tale" and "tell," "speak" and "word," "harken" and "lord," and "ride" and "way" (the last mediated by a common collocate), are

*Studies*, ed. A. J. Aitken, R. W. Bailey, and N. Hamilton-Smith [Edinburgh, 1973], pp. 103–12). This calculates the "expected" number of occurrences of a collocate within a given span around the node by assuming the occurrences are randomly (evenly) distributed through the text. Then the expected and actual number of occurrences are compared. A z-score test arranges the collocates in descending order of associativity. Only collocates with a z-score of 5.3 or higher appear on the graph. *TACT* includes this collocate table at my request. For a recent application of this method see Mark Olsen, "The Language of Enlightened Politics: The *Société de 1789* in the French Revolution," *Computers and the Humanities* 23 (4–5) (1989): 357–64.

semantic ones. Others are latent phrases, headed by nouns ("short" and "sleeve"), verbs ("witen" and "deed"), or modifiers ("fair" and "fetys"). "Short" and "long" make up a merism; the "man"- "curse"- "right" association speaks volumes in little about Chaucer's Christian beliefs. These arcs, then, indicate semantic fields even if they do not represent them (e.g., why are "tell" and "speak" in different networks and why are "courage" and "long" linked?).

### Phrases

By examining all open-class words (not just high-frequency ones), by looking for phrases, and by focusing on repetends from The General Prologue that occur in the tales as a whole, we see semantic clusters. Chaucer's 464 repetends evidently belong to a group of "constituent structures" of his memory when he wrote The General Prologue. Chaucer would have added to these constantly during his life. Each repetend would have had a "birth date." Its availability afterwards would not necessarily have depended on conscious recall. Memory of it might be procedural rather than declarative.<sup>41</sup> Experiments in cognitive psychology show that frequency of use (a "refreshing"), context (including association with other much- or little-used phrases), and "acoustic similarity" affect conscious recall.<sup>42</sup> The situation for unconscious procedural memory is not clear. As Chaucer wrote, he drew previously-stored phrases from memory clusters or made new

<sup>41</sup>Larry R. Squire describes how declarative (long-term episodic and "semantic") and procedural memories differ (*Memory and Brain* [New York and Oxford, 1987], pp. 151-74). Global amnesia loses only the first. Memories of words are both. We can consciously recall them and declare their meaning, as well as access them unconsciously as a procedural skill during speaking.

<sup>42</sup>Alan Baddeley, "Working Memory," *Science* 255 (31 Jan. 1992): 556-59.

phrases, each of which in turn joined his memory. A few of these new phrasal repetends survived into later poems, just as earlier ones came to be used in The General Prologue. Open-class repetends, then, reveal part of Chaucer's poetic, his semantic clusters.

Table III gives some facts about some twenty-four repetends with twenty-six repeating structures found in The General Prologue but not in the rest of the tales. Table IV gives the repetends themselves. Chaucer only used one of these repetends elsewhere,<sup>43</sup> and so their attributes may teach us something about why repetends fail to survive in memory. Although the majority, twenty, are two or three words long, six repetends extend to four words, with single instances of five and six words in length. Total function words exceed total content words slightly (forty-three to thirty-eight), albeit five repetends (nos. 11, 17, 24, 26, and 27) consist entirely of content words (and no repetend is made up exclusively of function words). Where function words occur, they tend to run in a string (nos. 5, 13, 19, 21, 23, and 25). Links by sequence or (word) order overwhelm links by collocation or co-occurrence independent of word order: forty-eight to seven. The average repetend, then, has three words (somewhat over half of which are function words), linked by word order six of seven times.

Chaucer repeated at least three (nos. 20, 25, 27) within four lines of one another, possibly for rhetorical effect or for cohesion. Still others, including some prepositional phrases, may arise because Chaucer returned to the subject of the only content word found in the repetend (for example, nos. 4, 6-7, 19, 21-22). Three more repetends (nos. 9, 17, 18) may belong with these. Should we dismiss the rest as accidents? Some readers will believe—and there seems to be no way to decide the question—that Chaucer did not

<sup>43</sup>No. 26 also occurs in TC 3.607-08 as a variant according to Tatlock's concordance.

Table III: Formal Characteristics of Chaucer's Repetends

	Units	No. C-S	C-S Size	&-Links	l-Links	Rhyme	FW	CW
Total	81	26		7	48	1	43	38
Average	3.38	1.08	3.12	0.29	2		1.79	1.58
Maximum	7	2	6	1	5	1	5	4
Minimum	2	1	2	0	0	0	0	1

Table IV: Repetends Not Found in the Rest of the Tales

Ref. No.	Repetend	Locations	DB No.
4	in   southwerk	GP 20, 718	253
5	as   ny   as   evere*   he   kan	GP 588, 732	136
6	of & port	GP 69, 138	343
7	in & cote	GP 103, 328	389
8	( cote   and   hood ) , ( ( cote   and ) & hood )	GP 103, 564, 612	32
9	arm   s*he   ba*r	GP 111, 158	38
10	faire*   and   fetisly	GP 124, 273	43
11	eyen   step.*	GP 201, 753	85
12	( as   a ) & forneys	GP 202, 559	366
13	certainly   he   was   a	GP 204, 395	22
14	( was   he ) & ( in   his   contree )	GP 215-16, 339-40	92
15	swich   a   worthy	GP 243, 360	75
16	wel   lovede*   he	GP 334, 634	217
17	faire*r*   burgeys	GP 369, 754	125
18	he   rood   u*p*on   a	GP 390, 541	23
19	but   of   his   craft	GP 401, 692	140
20	of   physik	GP 411, 413	308
21	in   all*e*   the   parisshe , in   his   parisshe	GP 449, 494	411
22	a   po[uv]re   persou*n	GP 478, 702	166
23	he   was   with   eyen	GP 625, 753	26
24	stronge* & wyn	GP 635, 750	218
25	thanne   wolde   he   speken*	GP 636, 638	27
26	sett*e* & soper	GP 748, 815	256
27	now   drawth   cut	GP 835, 838	287

write anything unintentionally, but common sense suggests otherwise. Instances of striking phrases are "cote and hood" (no. 8, which occurs three times), "faire and fetisly" (no. 10), "eyen step.\*" (no. 11), "as a . . . forneys" (no. 12), "faire\*r\* burgeys" (no. 17), and "a po[uv]re parsou\*n" (no. 22). These all describe a pilgrim's face, clothing, or social position, Chaucer's professed aim in writing the prologue (see GP 37-41). Seven alliterate or assonate (nos. 8-12, 22, and 26). Another (no. 14) forms a strong rhyming couplet: ". . . was he / . . . in his contree." A small group of repetends do not have a clear explanation: "as ny as evere\* he kan" (no. 3), "certainly he was a" (no. 13), "swich a worthy" (no. 15), "but of his craft" (no. 19), and "he was with eyen" (no. 23). They are longer than the average repetend (at four to six words) and have strings of function words (two to four, consecutively). None, as far as I know, recurs elsewhere in Chaucer's writing.

Why did only no. 26 survive into or from his other poems? If Chaucer's phrases came from memory, this question asks for the "key" to his "remembrance." Scholars have thought that factors external to Chaucer—rhetoric, metrics, and proverbs—might be such a key. These twenty-four lost phrases then pose a problem. Why did "faire and fetisly" and "cote and hood" vanish? Both are "memorable" to readers. The first occurs earlier in *The Romance of the Rose*.<sup>44</sup> A library of "poetic phrases" might store both in long-term memory. Instead, evidence suggests that Chaucer's memory follows general cognitive "rules."

The concept of "working memory," arrived at experimentally by cognitive psychologists and neuroscientists to explain how people commit things to memory, has three parts in its model: a "central executive" brain function and "two slave systems," a

<sup>44</sup>See John S. P. Tatlock and Arthur G. Kennedy, *A Concordance to the Complete Works of Chaucer* (1927; repr. Gloucester, Mass., 1963), p. 307.

“visuospatial sketch pad, which manipulates visual images,” and a “phonological loop, which stores and rehearses speech-based information and is necessary for the acquisition of both native and second-language vocabulary.”<sup>45</sup> Experiments on which this model is based may be relevant to an understanding of Chaucer’s poetic memory. One series of tests shows that a working human memory can only “hold”—for memorization—the number of words that the person can utter in one-to-two seconds.<sup>46</sup> Another series demonstrate the “acoustic similarity effect.” This shows that “hearing and repeating [phonologically, not semantically] dissimilar words such as ‘pit, day, cow, pen, rig’ is easier than a phonologically similar sequence such as ‘man, cap, can, map, mad.’”<sup>47</sup>

Chaucer must have already “known” these phrasal repetends or they could not have been repeated so soon after they appeared, but he also must have been subject to the same memory constraints people face today. Although all these “lost” repetends can be spoken in or in just under two seconds—their length, then, corresponds to what we have found can be stored in the “phonological loop”—six of the twenty-four are “acoustically similar” (nos. 5, 9, 10–11, 22, 26) and so might be retained less easily. Six have 75% function words (nos. 5, 13–14, 18, 21, 25) and so lack in distinctiveness. The loss of twelve of twenty-four, then, makes

<sup>45</sup>Baddeley, “Working Memory,” p. 556. See also his *Human Memory: Theory and Practice* (Hove and London, 1990), pp. 67–141.

<sup>46</sup>Alan D. Baddeley, Neil Thomson, and Mary Buchanan, “Word Length and the Structure of Short-Term Memory,” *Journal of Verbal Learning and Verbal Behavior* 14 (6) (Dec. 1975): 575–89. For digits, the maximum memory span has been shown to be about eight (Bryan Kolb and Ian Q. Whishaw, *Fundamentals of Human Neuropsychology*, 3rd ed. [New York, 1990], pp. 527–28).

<sup>47</sup>Baddeley, “Working Memory,” p. 558. See also his *Human Memory*, pp. 54–57, 72.

sense within the current model of working memory. This may suggest that phrasal repetends, however, are part of declarative rather than procedural memory.

All 464 repetends differ from the subset used only within The General Prologue in ways consistent with this model. Table V shows that the survivors are shorter: their length drops from 3.12 to 2.45 words. An apparent increase in size, from 3.38 to 3.68 words, arises not from length but rather from flexibility: most repetends here have multiple variant forms. Only 8 and 21 among the 24 repetends limited to The General Prologue had variant forms, so that the ratio of all repeating forms (variant and simple) to repetends there was 26:24 (1.08:1). The total repetend population has a 798:464 (1.7:1) ratio. Chaucer, then, appears not to have re-used verbatim tags as well as he did flexible patterns in which sequences could have optional words at various points, or where word order did not matter. The increased collocations reflect this.

Table V: Formal Characteristics of all Repetends

	Units	No. C-S	C-S Size	&-Links	-Links	Rhyme	FW	CW
Total	1709	798		210	727	10	848	863
Average	3.68	1.72	2.45	0.45	1.57		1.83	1.86
Maximum	17	21	9	3	12	1	15	8
Minimum	2	1	1	0	0	0	0	0

The repetends limited to The General Prologue (ones Chaucer did not use again in the tales) heavily prefer word order to collocation—the ratio of &-links to |-links being about 1:7 (Table III) but the overall ratio is 2:7 (Table V). Word-order sequence still defines the average repetend, but almost a third of them link collocates. Rhyme pairs fixed in a collocation appear once among the 24, but there are just nine instances in the remaining 440, half as

many as we might expect. Finally, the ratio of function words to content words has dropped, from 43:38 to 848:863. These results are consistent with the working memory model. Short phrases are easier to recall than long ones. Phrases with "acoustic similarity" diminish, shown here in decreased rhymes. Undistinctive function words play a reduced role in the repetends.

#### WHAT ACCOUNTS FOR PHRASAL REPETENDS AS A WHOLE?

#### Traditional Explanations

It is not obvious at first how to classify the repetends as a whole. B. J. Whiting identifies fifteen of them as proverbial and two as a proverb ("And yet he hadde a thombe of gold, pardee," line 563) and as one of seven sententious remarks (Plato's "The wordes moote be cosyn to the dede," line 742).<sup>48</sup> See Table VI for repetends identified by Whiting.<sup>49</sup> He includes some thirty-three comparisons and seven miscellaneous passages among proverbial phrases in *The General Prologue*.<sup>50</sup>

<sup>48</sup>GP 162, 256, 438, 500-04, 642-43, 741-42, and 830.

<sup>49</sup>Whiting's proverb, sententious remark, comparisons, and "proverbial phrase" are marked below as *P*, *S*, *C*, and *PP*.

<sup>50</sup>Comparisons are found at GP 69 (p. 167), 89 (p. 168), 92 (p. 167), 113 (p. 173), 152 (p. 162), 179 (p. 161), 190 (p. 161), 198 (p. 163), 205 (p. 163), 207 (p. 157), 238 (p. 161), 257 (p. 177), 267 (p. 174), 287 (p. 170), 332 (p. 160), 357 (p. 168), 470 (2) (pp. 157, 176), 552 (2) (pp. 162, 173), 553 (p. 173), 555 (p. 173), 559 (p. 161), 591 (p. 173), 616 (p. 169), 624 (p. 162), 626 (p. 173), 635 (p. 157), 675 (p. 177), 676 (p. 175), 684 (p. 164), 688 (p. 163), and 774 (pp. 174-75). These entries are ordered alphabetically by the key word of the comparison. On p. 8 Whiting notes that he has thirty-one comparisons, but thirty-three are listed on pp. 155-77, and he has conflated the double similes at lines 470 and 552. Miscellaneous passages are GP 177 (p. 190), 182 (p. 189), 399 (p. 186), 476 (p. 189), 586

Table VI: Repetends in Whiting's *Proverbs*

Ref. No.	Repetend	Locations	DB No.
28/C	((as   fres*he*   as   is) & May), ((fres*he*   as & May), ((as   fres*he*   as) & May))	GP 92*; MerT 1895-96; SqT 281; MkT 2120	25
29/C	eyen   greye   as	GP 152*; MilT 3317; RvT 3974*	80
12/C	( as   a ) & forneys	GP 202, 559*	366
29a/PP	sett*e* & cappe	GP 586; MilT 3143	206
30/C	( bro[uw]n.*   as ) & ( a   ber*y.* )	GP 207*; CkT 4368*	89
31/C	( round.*   as ) & ( a   belle )	GP 263; PardT 331	103
32/C	( all*e*   of   silk ) & ( wh[iy]te*   as   morne   milk )	GP 357*; MilT 3235-36*	123
33/C	brood & bokeler	GP 471*; MilT 3266	159
33a/P	thombe & gold	GP 563; SqT 83	198
34/C	that   was   al   pomely   gre*ys*	GP 616*; CYP 559	211
35/C	narwe & ( as   a   sparwe )	GP 626*; SumT 1803-04	215
36/C	as   an*   hare	GP 684*, FrT 1327*	451
37/C	ho*te* & ( as & ( a   goot ) )	GP 687*; CYT 886-87	235
37a/S	worde*s* & ( ( cosyn   to ) , ( ac*ord.*   with ) , ( ( as , bothe , eek )   in ) ) & de*de*	GP 7441-42; KnT 1775; PhyT 108; MancT 208; ParsT 579, 795	255
38/C	as & sto*ne*s*	GP 774*; MilT 3472*; MLT 670*; CIT 121*; MerT 1818*, 1990*, 2156; SqT 171*	71

Only eleven of these thirty-three comparisons are repetends within the tales.<sup>51</sup> Just one of the seven "other proverbial phrases" repeats itself

(p. 190), 652 (p. 189), and 706 (p. 178). Whiting has chosen one of the nouns in each phrase as a basis for alphabetizing the list.

<sup>51</sup>An asterisk in Table VI marks the repetends Whiting found. He also found 11 of 13 in GP and 10 of 19 in the rest of the tales but missed one comparison that repeated itself (no. 103) later in the tales.

later in the tales: "sett\*e\* & cappe" (no. 206, GP 586; MiIT 3143).<sup>52</sup>

Just as there is no one-to-one equivalence between proverbs and repetends, so other classifications fail to account for the diversity we see. Lawrence L. Besserman retrieves the term "merism" from Biblical scholarship to describe "a synechdoche [sic] in which a totality is expressed by two contrasting parts" (e.g., "heaven and earth," "old and young")<sup>53</sup> and finds seven in Dame Sirith (450 lines), twenty-three in *The Owl and the Nightingale* (about 1200 lines) and ninety-three in *Havelock the Dane* (2821 lines). There are only five among the General Prologue repetends (see Table VII). Chaucer must have employed dozens more, but clearly he did not use most of them more than once. Merisms are only semantic subsets of phrasal repetends.

Table VII: Merisms Among the Repetends

Ref. No.	Repetend	Locations	DB No.
2/M	shoures & droghte	GP 1-2; MiIT 3196; SqT 118	2
39/M	ho*te & co*lde*	GP 420; KnT 1811; MiIT 3754; CkT 4348; SqT 520; CYT 252	144
40/M	thou*ghte* & werke*s*	GP 479; CIT 363; CYT 1303; MancT 148	421
41/M	much*1* & litel*	GP 494; Mel 1215, 1627-28; NPP 2769-70; MancT 350	177
42/M	( heighe* , hye* ) & lou*g*w*h*e*	GP 522, 817; MLT 993, 1142; FranT 1035; MancT 361	185

Metrical factors, collocating rhyming pairs, and the alliterative formulas and tags so common in Old English poetry and poems such as *Sir Gawain and the Green Knight* and *Piers Plowman* are no different. Of thirty-four repetends in Table VIII, about 7.5% (eight phrases) cement rhymes (prefixed by "R") and twenty-six

<sup>52</sup>Whiting, *Chaucer's Use of Proverbs*, p. 190.

<sup>53</sup>"Merisms in Middle English Poetry," *Annuaire Mediaevale* 17 (1976): 59.

(prefixed by "A") involve strong alliteration, often by collocating terms. Metrics might explain more repetends than proverbs, comparisons, or merisms but does not account for the phenomenon.

Table VIII: Metrical Repetends

Ref. No.	Repetend	Locations	DB No.
1/R	the   yonge   sonne   ( hath , that )   in   the   ram ) & y*ronne	GP 7-8; SqT 385-86	1
3/R	corages* & pilgr[iy]m-ages*	GP 11-12, 21-22; KnT 2213-14	3
42a/R	gypoun & hau*berge-ou*n	GP 75-76; KnT 2119-20	19
43/R	( atte   beste* ) & ( to   reste )	GP 29-30; RvT 4147-48	7
44/A	worthy & w[iy]se*	GP 68; MLT 579; FranT 787	15
45/A	me*ke* & mayden*	GP 69; MiIT 3202; SNP 57	16
46/R	( litel*   space ) & grace	GP 87; MLT 207-08; MerT 1687-88; PhyT 239-40; PrT 603-04; ParsP 71-72	65
47/A	(( ful   of ) & floures ) , ( of   floures )	GP 90; FranT 908, 913; MkT 2373; SNT 279	349
48/A	the   monthe   of   May	GP 92; FranT 216	350
49/A	ful   faire*	GP 124, 376, 539, 573, 606; KnT 1523, 2291, 2697; MiIT 3322; RvT 3951; MLT 731; MkP 1932; SNT 132, 536	131
50/A	dr[aiou]nken*t*h* & draughte	GP 135; WBP 459; PardP 360, 363, 456	46
51/R	cheere & ( of   manere* )	GP 140; SqT 545-46	48
52/A	hardn*e*s*s*e* & herted*	GP 229; MerT 1990; Mel 1317, 1695; ParsT 485	95
53/A	many   a   man*e*s*	GP 229; KnT 2101; Host1 50; WBP 146; CIT 248; MerT 1443, 2408; Mel 995, 1035; MkT 2604, 2629; NPT 2934, 2938, 2975; CYT 985; MancT 326; ParsT 370, 460	69
54/A	so*re   smert.*	GP 230; SumT 2092; MkT 2713; CYT 871	96

55/A	sooth   to   s[ae][iy][en]	GP 284; MilT 3337; MLT 443; MerT 2082; SqT 590; NPT 3021; CYT 1285	60
56/A	tel*e*n*t*h* & tales*	GP 330, 731, 735, 792, 831, 847; KtT 890; MilP 3116; CkP 4360-61; Host1 34; MLT 1167, 1185; WBP 186, 193, 413, 842, 846, 851, 853; FrP 1289, 1300; FrT 1335, 1425; SumP 1671; SumT 1763; CIP 9, 26; MerT 2440; SqI 6; FranW 697-98, 702; PardP 341, 455, 460; PardT 660; Host3 449-50; ThopP 706; ThopT 846; ThopEp 966; Mel 1200; MkP 1925, 1968; NPT 2824, 3149; CYP 597; CYT 1020; MancP 13, 59, 68, 103; MancT, 135; ParsP 21, 46, 53-54, 66; ParsT 1023	251
32/R	( all*e*   of   silk ) & ( wh[iy]te*   as   morne   milk )	GP 357-58; MilT 3235-36	123
57/A	caus.* & y*kn[eo]w.*	GP 419, 423; WBP 122-23; MerT 1975; SqT 466; FranT 887, 1176	145
58/A	faire* & face	GP 458; WBP 295-96; ShipT 28; ThopT 702	155
59/A	( so*the*r*s* , so*thly , so*thnesse, so*thfastnesse ) & ( s[ae][iy]d*e*n* , se[iy]s*th*o*[uw]* )	GP 468; KnT 1521, 1625, 2447; MilT 3670; RvT 4319; CkP 4355, 4356, 4357; WBP 195, 450, 601, 666; WBT 941; CIT 855; MerP 1230; MerT 2082, 2125; SqT 536; FranT 770; PardT 686; Mel 1112, 1175, 1342, 1532; MkP 1964; NPP 2781; NPT 3328, 3425; SNT 214, 260-61, 334-35; CYP 662; MancT 143; ParsP 23; ParsT 613, 671, 702, 895	158
33/A	brood & bokeler	GP 471; MilT 3266	159
60/A	spores* & sharpe	GP 473; KnT 2603	161
61/R	.sel[fv].* & del[fv].*	GP 535-36; SqT 637-38	191
62/A	b[iy]g & ( of   bones )	GP 546; KnT 1424	196
63/A	brawn.* & ( of   bones )	GP 546; MkP 1941	197

64/A	(wel   (ye , I)   woot), (wel & (ye , I)   woot), (wel & woot   (ye, I))	GP 659, 740, 771; KnT 1140, 1324, 2398, 2400; MilT 3296, 3771; RvT 4255; WBP 27, 30, 55, 63, 79, 200, 849; WBT 1059; SumT 2199; CIT 309, 477; MerP 1217; MerT 1498, 2277, 2343; FranW 708; FranT 885, 972, 1001, 1041, 1323, 1327, 1338; PardI 312; PardT 786; ShipT 173; Mel 988, 1258, 1760; MkP 1917; NPP 2803; CYT 904, 931, 954, 1001, 1206; MancP 32; ParsT 188, 346, 764, 872, 932	59
65/A	y*kn[eo]w.* & conseil	GP 665; MkT 2028	225
66/A	ba*r & ( h[iy]m   a ) & burdou*n	GP 673; RvT 4165	230
67/A	ho*lde*   up   ( his , youre )   h[ao]nde*s*	GP 783; PardT 697	275
68/A	withouten   wordes   mo	GP 808; MilT 3408, 3650, 3819; FranW 702; PardT 678; CYT 1255	278
69/A	shortly   for   to   ( tellen* , speken* , s[ea]lyn*e* )	GP 843; KnT 985, 1000, 1341; RvT 4197; MLT 428, 564; MerT 1472; PardT 502; ShipT 305; MkT 2355; CYT 1111, 1217	54
70/A	what   nedes*t*h*   wordes   mo	GP 849; KnT 1029, 1715	297
71/A	whan & ( saugh   that   it   was )	GP 850; CYT 1242	299

Grammatical structure gives a clue to repetend function. Fifteen percent are clausal (sentences, complete clauses, and near-sentences); 17% are verb phrases; 25% are noun phrases; and 42% are prepositional phrases. Because the last take noun phrases as their head, the noun—modified by adjectives, introduced by a preposition—dominates two-thirds of all repetends. This distribution corresponds to normal sentence structure.<sup>54</sup> The repetend, then, seems to belong to writing generally.

<sup>54</sup>SVO (subject, verb, object), in which two of the three normally take nouns as their heads.

## Semantic Memory

The working memory model, which explains short-term memory, indicates *why* some repetends might be better retained than others. Paradoxically, repetition itself does not explain *how* repetends are retained. *Association in long-term memory explains their organization and thus our ability to reuse them.*<sup>55</sup> They accumulate in semantically-related clusters of phrases; when these clusters overlap, networks emerge.<sup>56</sup> The “semantic network” model of long-term memory relies on experiments showing that people store not single words or concepts but, rather, words in a phrasal context.<sup>57</sup> The semantic network model explains how Chaucer’s repetends (which individually seem chaotic) hold together. For the purposes of textual study, a network is a set of all phrasal repetends that share a minimum of one content word with at least one other phrasal repetend in the group. For example, the first phrasal repetend, “( the | yonge | sonne (hath, that) | in | the

<sup>55</sup>Experimental cognitive psychology has shown that repeating a phrase does not aid in recalling it; only context does, the extent of the network of associations that a word or idea or experience has. Instead, “Repetition affects the process of integrating the representation of an event; it establishes its familiarity independent of its context or its relations to other mental contents” ([George Mandler], “Remembering,” *The Oxford Companion to the Mind*, ed. Richard L. Gregory [Oxford, 1987], p. 680).

<sup>56</sup>For a recent discussion of long-term memory see Baddeley, *Human Memory*, pp. 328–55, and Squire, *Memory and Brain*, pp. 151–74. Note that “semantic” declarative memory in this field refers to events, facts, propositions, etc., that may be consciously recalled and “declared.” People do not, however, consciously recollect semantic networks. Accessing them resembles a procedural skill.

<sup>57</sup>“For example, the word *PIANO* might be presented in either *The man tuned the PIANO* or *The man lifted the PIANO*. Recall was subsequently cued with a phrase such as *something melodious* or *something heavy*” (Baddeley, *Human Memory*, p. 285).

| ram ) & y\*ronne” (Table I), consists of four content words that do not occur elsewhere in the body of phrasal repetends. It is, then, an out-lier, one that does not associate with any other phrase (in the part of Chaucer’s writings discussed here): a network of one. The second repetend, “shoures & droghte,” is also an out-lier, but the third, “corages\* & pilgr[iy]mages\*,” forms part of a five-phrase network including “in hire\* corages\*” (no. 323), “with & corages” (no. 328), “(in, on) & pilgr[iy]mages\*” (no. 324), and “of & pilgr[iy]mages\*” (no. 459). Thus a network results when two different phrases share a content word at which they may be said to “cross” or “intersect.”

The 464 repetends fall into 177 networks of different sizes (15 repetends lack content words and so cannot fall into any network). See Table IX for a breakdown by frequency. Two-thirds of all repetends (67.9%) belong in one multiple-phrase semantic network. Clearly a principle of association operates here. Proverbs, merisms, comparisons, maxims, and metrical patterns account for only a small number of repetends, in comparison. It is not clear how anyone could have produced coherent verse by stringing together phrases from an immense unorganized list. Although people alphabetize *written* words and phrases to make finding them easy, human memory does not store words by their alphabetical order but rather by their context or associations, and Chaucer presumably was like us. These networks might be called “semantic fields,” although that phrase describes the range of meanings a word has, not the range of associations any one person gives a word. One of the smaller networks coheres around the content words “black,” “flesh,” “milk,” “red,” “silk,” and “white.” Two different representations of this network will show how an abstract associational cluster—comparable to how concepts might be stored in long-term memory—can be derived from a concordance-like list of phrasal repetends.

Table IX: Phrasal Repetend Networks

No. of Networks	No. of Phrases in Network	Total Phrases
1	153	153
1	20	20
1	16	16
1	13	13
2	6	12
3	5	15
3	4	12
12	3	36
19	2	38
134	1	134
0	15	15
Total: 177		464

I call both representations “phrasal repetend graphs.” The first, Figure 2, shows both how various phrasal repetends share the same node word—for example, nos. 74, 154, and 328 all end with the word “red”—and how the non-node words in these repetends belong to still other repetends, which attach to one another in an associational chain. Although the node word “red” does not occur with the word “beard,” one of the collocates of “red”—“black”—does. In turn, “black” appears in a phrasal repetend with “silk,” and “silk” in another that has “white” and “milk.” Another link between the node words “red” and “silk” occurs through the word “white,” which belongs both to repetends 74 and 123. The second graph of this cluster (Figure 3) reduces the phrasal repetends to nodes (the shared words, capitalized with boxes), out-lying words (uncapitalized), and arcs (lines with arrows that indicate the direction of the association) labelled with phrasal repetend numbers. Word-forms are lemmatized, and an individual repetend has to be reconstructed by following the arcs labelled with its number, but the structure of the network is clarified. In particular, we can see

CHAUCER'S REPETENDS FROM THE GENERAL PROLOGUE

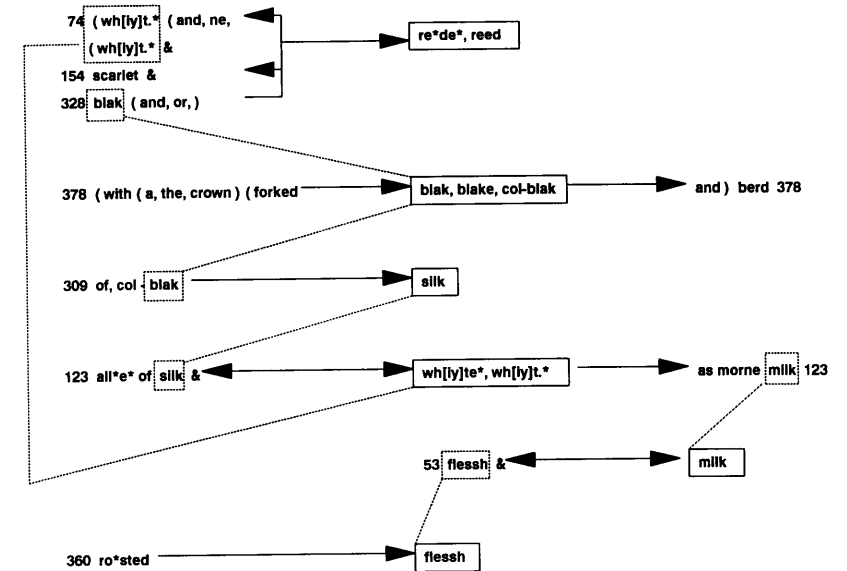


Figure 2. The “White-Red” Repetend Graph

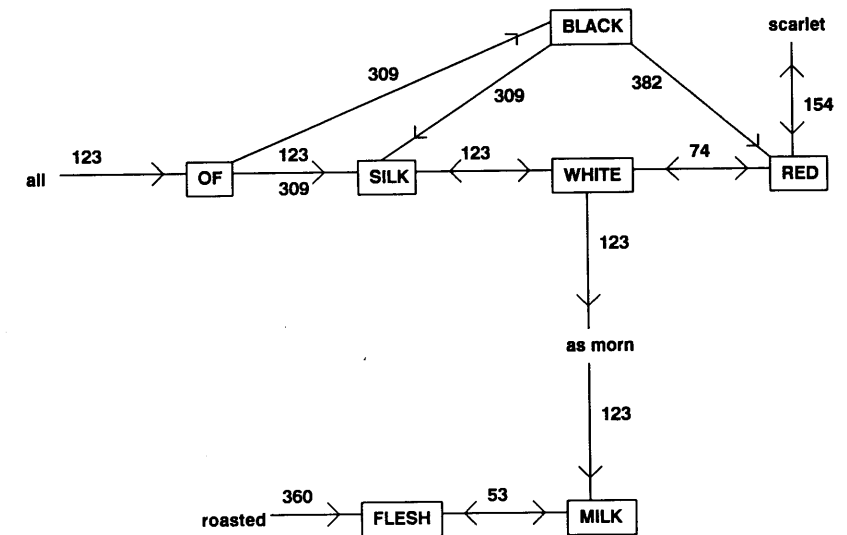


Figure 3. The “White-Red” Network

around which keywords the associational cluster coalesces and is perhaps strongest. Clusters like these draw attention to how Chaucer thought about commonplace things.

The phrasal repetend graph of nodes and arcs has obvious resemblances to a neural network, in which dendrites (arcs) from any one neuron (node) connect with other neuron axons across synapses.<sup>58</sup> The concept of “spreading activation,” where stimulating one neuron produces a corresponding if diminished stimulus in all other linked neurons, seems generally consistent with the organization of the phrasal repetends into clusters.<sup>59</sup>

The massive network of 153 phrases breaks down into semantic middle-size clusters linked to one another somewhat weakly by means of single, non-obvious repetends. The largest clusters in this mass center on the words “great” (11 phrases), “man/men” and “woman/women” (21), and “speak,” “say,” and “tell” (20). Lesser clusters focus on “wine,” “ale,” and “drink” (8 phrases), “best” (5), “love” (6), “worthy” and “wise” (6), and “way” and “ride” (5). This massive network, that is, comprises clusters of a size like the smaller independent networks, which have between five and twenty repetends each. Clearly the smaller, isolated networks could be easily absorbed into this mass, with the addition of only a few connecting phrases. An analysis of phrasal repetends from Chaucer’s works as a whole, however, might not change this distribution, just enlarge its constituent parts.

The speak-tell-say cluster (twenty repetends; see Figure 4) be-

<sup>58</sup>Kolb and Whishaw, *Fundamentals of Human Neuropsychology*, pp. 528–32 (note that this is a college textbook).

<sup>59</sup>Baddeley observes that total spreading activation fails to account for various recorded deficits in long-term memory and, following experimental work, suggests that semantic memory falls into “domains,” where “different parts of the brain” relate to different kinds of memory (e.g., animate, inanimate, self, etc.; *Human Memory*, pp. 350–54).

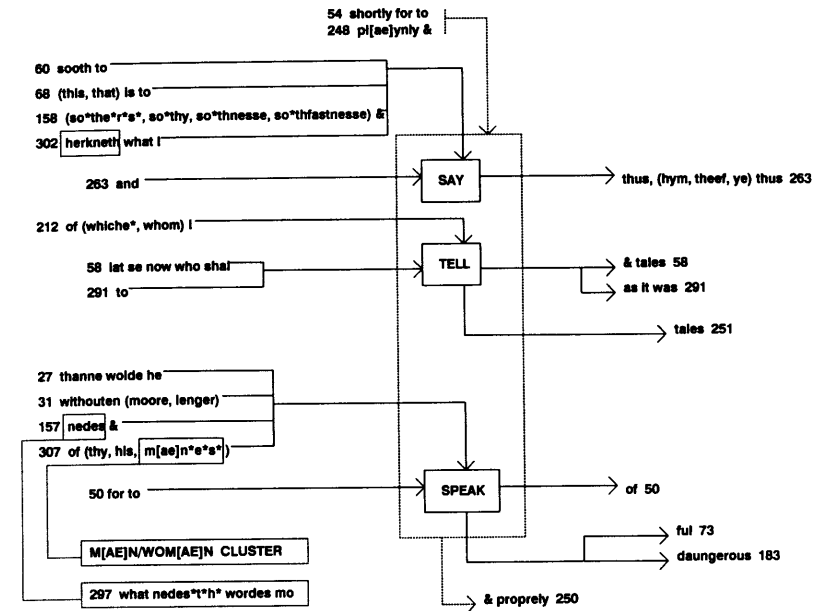


Figure 4. The “Say-Tell-Speak” Repetend Graph

longs to the 153-phrase network, like the *man-woman* and *love* clusters. It distinguishes between speaking (words), telling tales, and saying truths or sooths. Words arise from “need” and belong to the working world: they may be “daungerous” (i.e., disdainful). Truths, in contrast, are said. Soothsayers belong to the contemplative, not active, life. The third utterance, tales, are told, not spoken or said. Chaucer’s repetend network both privileges and undermines his tales by dissociating them from work and truth. Is it too far a reach to say this network implies that Chaucer’s retraction is based on a scepticism about fictions? He may have had reservations about tale-telling even as he undertook his great, unfinished epic. Last, Chaucer has only three terms that apply to all three utterances: “short,” “plain,” and “proper.” Few readers would disagree that his poetry ranks as the most spare, unflamboyant, unmetaphorical of all major English poets.

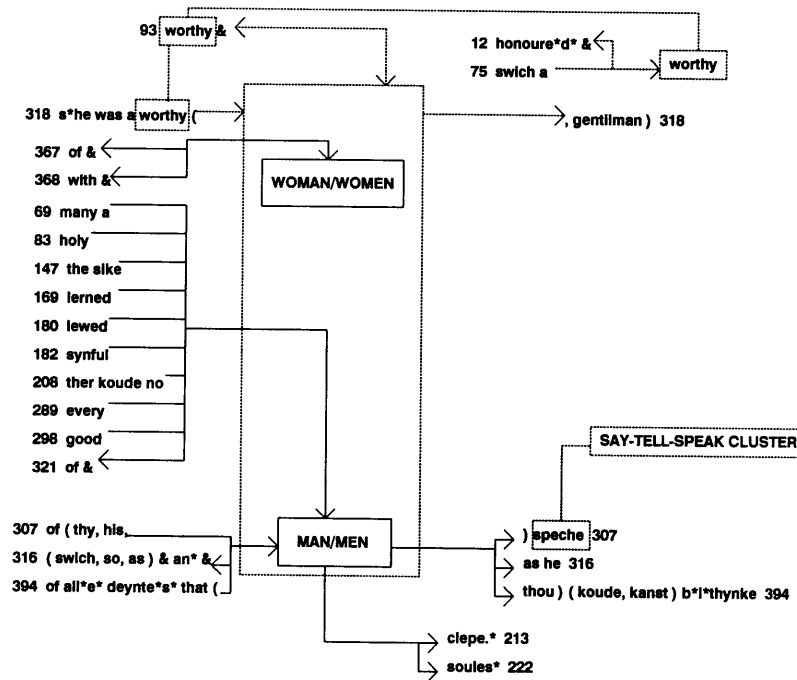


Figure 5. The "M[ae]n/Wom[ae]n" Network

When he speaks of men and women together (twenty-one repetends; see Figure 5), Chaucer calls them worthy, i.e., honorable and wise. In describing men alone, however, the terms "sick," "sinful," "lewed," "learned," "good," and "holy" appear. Chaucer "protected" his women characters from responsibility for moral decisions. While allotting women the same God-given virtues as men, his religious beliefs place them apart from man in the hierarchy of God's creatures. (Dorigen, Criseyde, the Prioress, and the Wife of Bath, for example, tend to escape judgement, at least by Chaucer.) The *love* cluster (nine repetends; see Figure 6) appears morally bi-polar. It is Christian charity (loving one's neighbor as one's self), a remedy and an aspect of chivalry, as well as venery or something "hot" (which may turn goat-like or

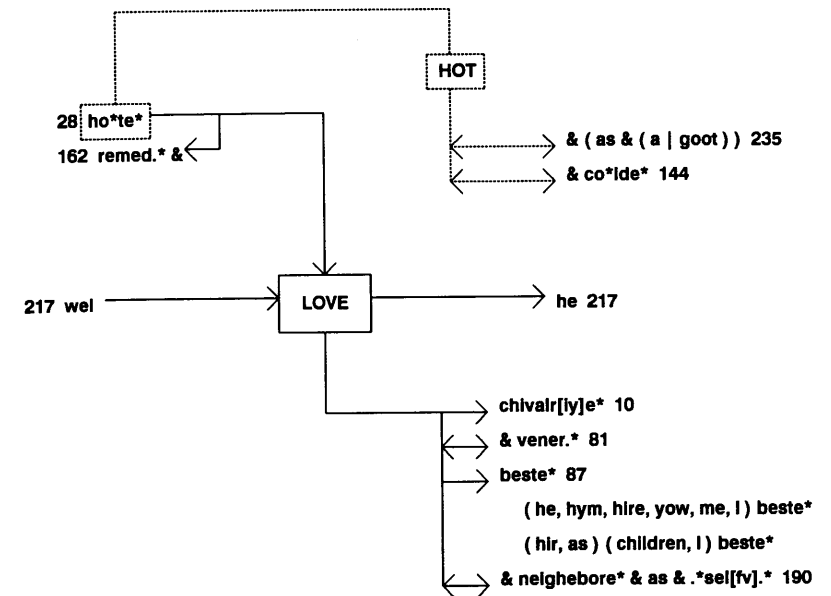


Figure 6. The "Love" Repetend Graph

cold). The cluster also splits along lines of gender. Men are the instigators (the subject of the verb), and women the recipients.

The last two clusters (Figures 7 and 8), *sundry-land* and *merry*, unify fewer repetends (only nine each) but are both separate networks. The first associates people and countries through a common adjective, "sundry," and the latter by collocation to income and livestock. Note that the idioms "now draw cut" and "draw folk to" link this cluster to another focusing on fortune. This kind of (non-semantic?) linkage suggests that the 153-repetend network is a group of smaller semantic clusters. The second cluster behaves similarly. Being merry associates with singing, playing, and being in company (not, interestingly, with milk, silk, and roasts). The phrase "of manere," likewise, attaches merriment to another cluster on poverty and learning, which at first appears separate but may perhaps be connected. Riches and happiness belong together in the Franklin, of all the pilgrims.

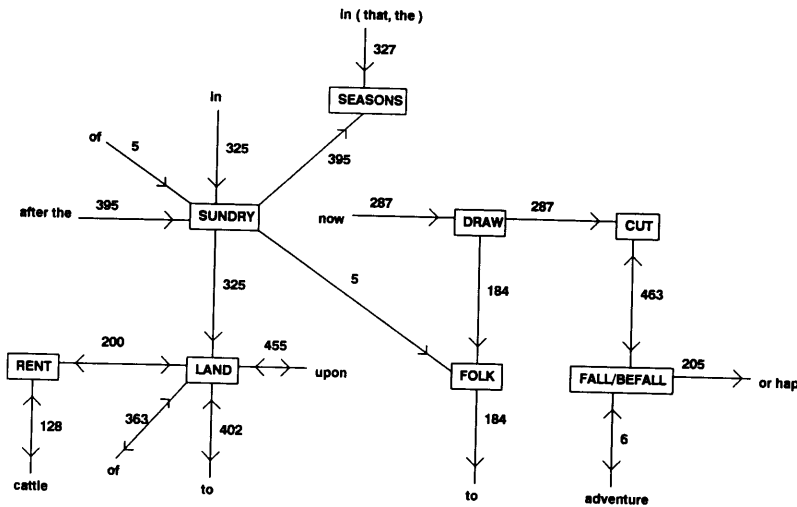


Figure 7. The "Sundry-Land" Repetend Graph

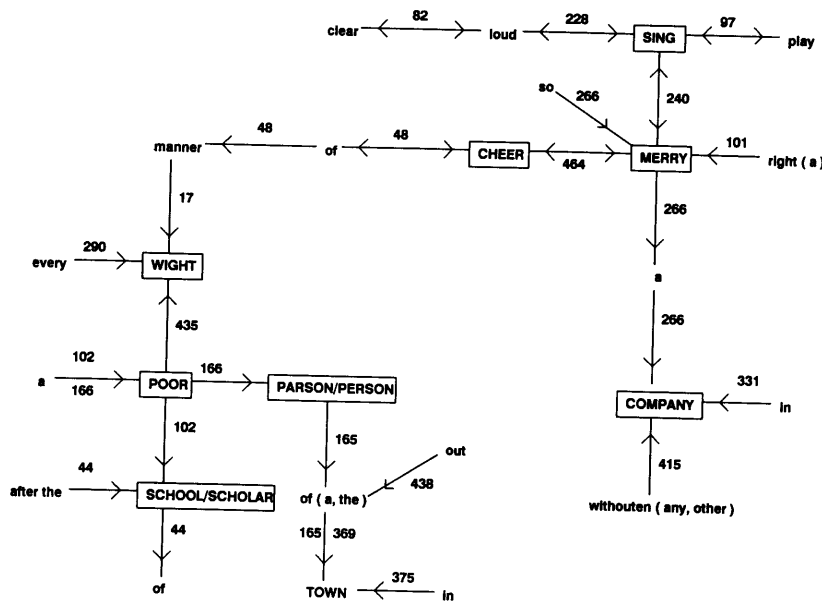


Figure 8. The "Merry" Repetend Graph

These networks give new perspectives on deceptively familiar aspects of Chaucer's writing but they are only fragments and they raise more issues than they settle. First, did Chaucer recall repetend networks consciously from declarative memory or access them unconsciously as a procedural skill with words? Evidence from their form and survivability suggests that they proceeded through working memory, but as a whole they do not look like formulas that could be memorized. They appear part of Chaucer's poetic skill (notice how few of them survive into Chaucer's prose works), but does "semantic style" belong to procedural memory? If it does, then Chaucer could not declare what that skill was, even while he knew it to be an "art." It remained a mystery, to him as to early bards termed "oral formulaic." Second, how does this procedural knowledge, if it is that, relate to musical skill, which operates separably from linguistic skill? More than one memory system is active at once. Finally, although *The General Prologue* describes all orders of medieval English society, only a few of repetend networks surface *obviously*, that is, repeatedly. By exploring repetends throughout his works, we may see a fuller map. If our own minds are a guide, Chaucer's repetend networks changed over time. They did not form a stable system. Repetend networks in *The House of Fame* (another poem in which Chaucer depicts the whole world in which he lived) are probably not the same as those in *The General Prologue*.

Besides perhaps revealing something about Chaucer's mind, a map of his repetend networks may help us, when compared with like maps for Gower, the *Gawain* and *Piers Plowman* poets, and still others, to refine an understanding of Middle English. It may suit scholars to define language as single words, but "Experience, though noon auctoritee / Were in this world, is right ynogh for me" to believe that we think in phrases.

REPETEND DISTRIBUTION

Within The General Prologue

If repetends reflect stable aspects of Chaucer's memory, their density from one passage to another should vary according to the degree of conventional subject matter present. To measure this tendency in The General Prologue, I graphed, for each of its thirty-two sections, the actual frequency of repetends against the "expected" frequency (see Figure 9). The expected frequency is the number of times repetends should occur, assuming an even spread of repetends throughout the entire poem. There are about 550 repetend occurrences in 858 lines, but of course the number expected in each section will vary according to its length.

Heavy concentrations of repetends—between a third and twice as many as expected—occur in the descriptions of the Tabard Inn (lines 19–34), the Squire (lines 79–100), the Yeoman (lines 101–17), the Wife of Bath (lines 445–76), the Plowman (lines 529–41), the Manciple (lines 567–86), and the Host (lines 747–57), and in the conclusion (lines 842–58). Some passages, particularly the last, do little more than gracefully knit a fabric of repetends. Consider Chaucer's ends in the poem's final seventeen lines. Words belonging to repetends appear in bold face followed by their numbers in superscript. Underlining distinguishes collocations from fixed-order phrases. Forty-nine percent of the words belong to one or more repetends in this section:

Anon to drawn every<sup>290</sup> wigh<sup>290</sup> bigan,  
 And shortly<sup>54</sup> for<sup>54</sup> to<sup>54</sup> tellen<sup>54</sup> as<sup>292</sup> it<sup>292</sup> was<sup>292</sup>,  
 Were it by<sup>160</sup> aventure<sup>160,293</sup>, or sort, or cas<sup>293</sup>,  
 The sothe<sup>294</sup> is<sup>294</sup> this<sup>294</sup>; the cut<sup>463</sup> fil<sup>463</sup> to<sup>268</sup> the Knyght<sup>268</sup>,  
 Of which ful blithe<sup>295</sup> and glad<sup>295</sup> was every<sup>290</sup> wyght<sup>290</sup>,  
 And telle<sup>251</sup> he moste his tale<sup>251</sup>, as was resoun,

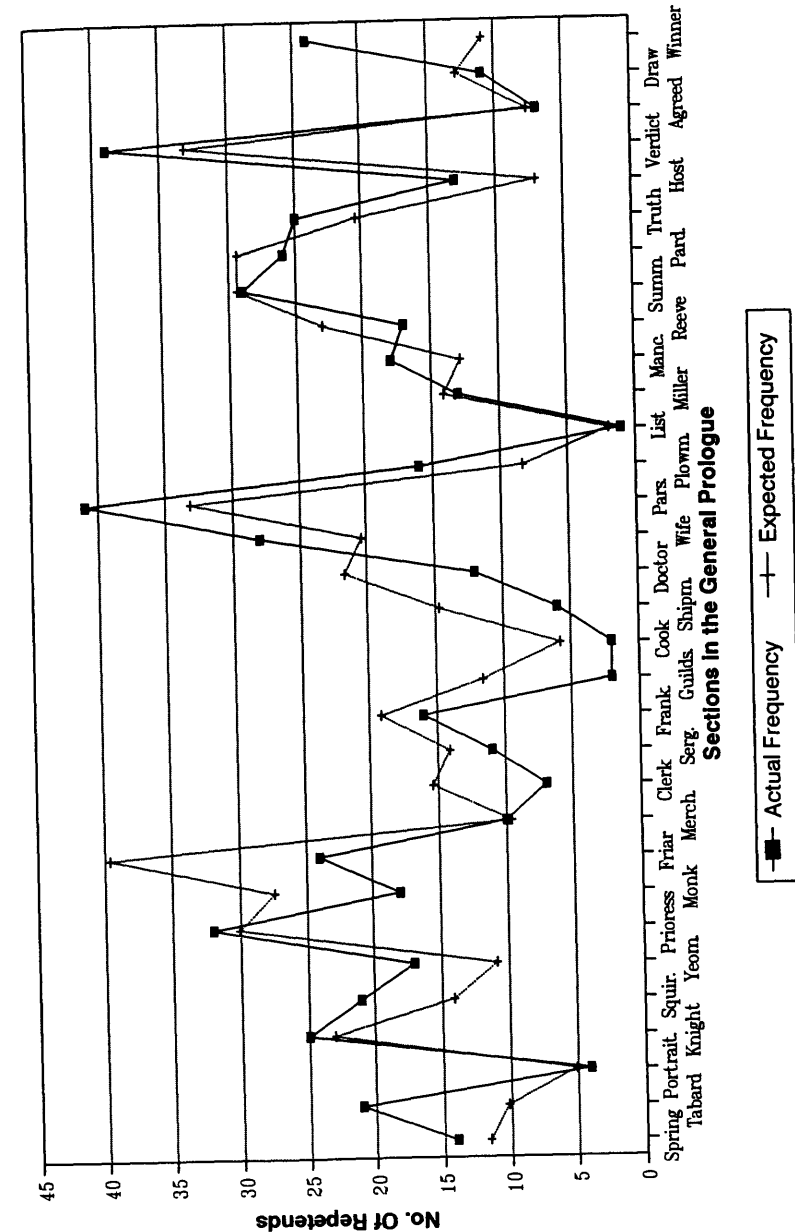


Figure 9. Repetend Distribution in The General Prologue



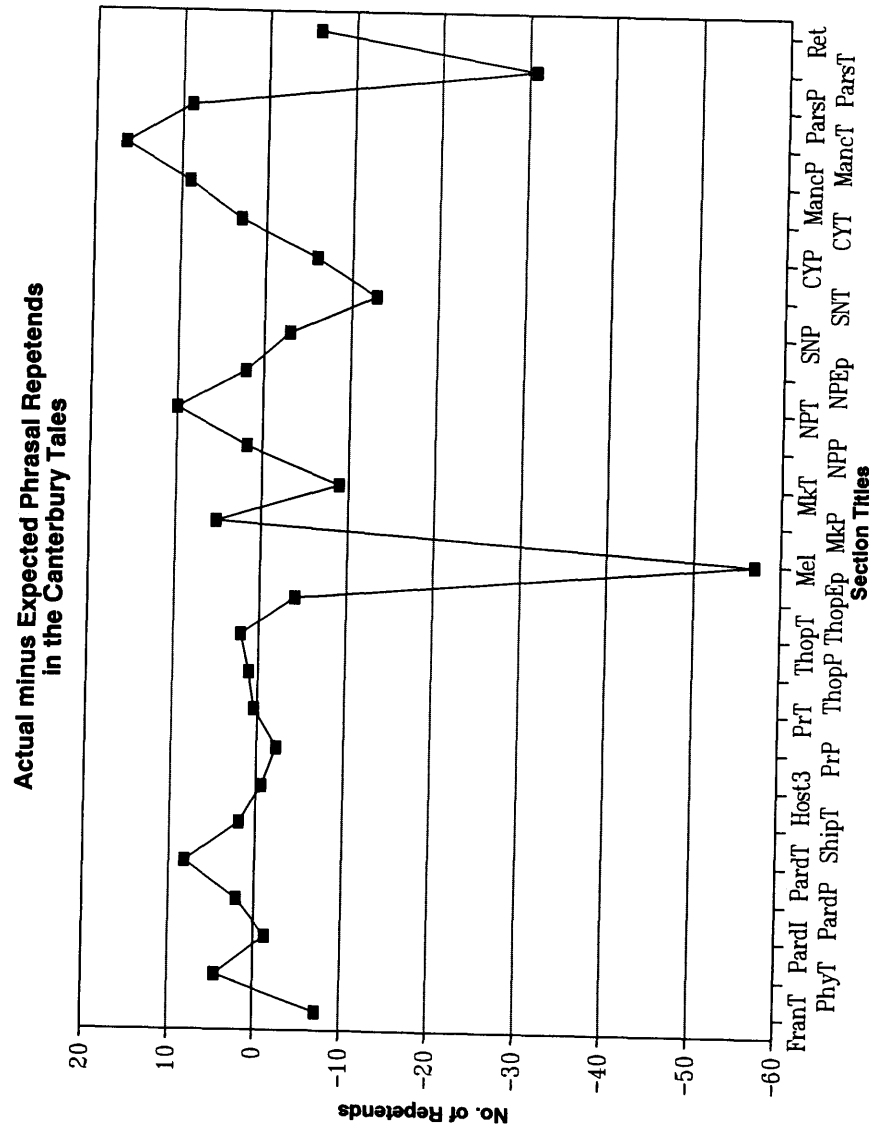


Figure 10. Repetend Distribution by Section in the Tales

What explains this variation? The drop in Fragments VII and X might have occurred because Chaucer translated them (and so they contain idioms foreign to his own). Yet The Clerk's Tale, also translated (from Petrarch), has more repetends than predicted. The change from verse to prose in both fragments looks to be a factor. Chaucer's repetend networks may well differ by genre.

The drop in Fragment VIII occurs in The Second Nun's Tale, a poem. Conventionality of expression may be a factor, as The Man of Law's Tale and The Prioress' Tale have marginally fewer repetends than average. "Unconventional," however, is not the term most readers would use to describe The Second Nun's Tale. I think analysis will show that it operates with a significantly different group of repetends than occur in the rest of the tales. Chaucer evidently wrote it before The General Prologue, on the basis of rhyme scheme and the tale-teller's reference to himself as an "unworthy sone of Eve" (line 62). Most editors independently date this tale early in Chaucer's career, about 1373 or 1372-80, well before The General Prologue (c. 1388-92).<sup>60</sup> Chronology, then, may explain the anomaly.

The Merchant's Tale, of all the tales, has by far the most General Prologue repetends. Because it refers often to Jerome's *Epistola adversus Jovinianum*, which Chaucer acknowledged in the revised Prologue to *The Legend of Good Women* (c. 1395-96) but not in the original Prologue (c. 1386-88),<sup>61</sup> The Merchant's Tale has been assigned to 1386-94. These limits center on the five-year period independently suggested for The General Prologue. Again, chronology seems to be a factor.

Next closest are Fragment IX, The Manciple's Tale, buttressed

<sup>60</sup>See *Riverside*, pp. xxix, 942.

<sup>61</sup>See *Riverside*, pp. 864, 1060.

by its own prologue and, in Fragment X, The Parson's Prologue. Since the last mentions The Manciple's Tale, the three sections clearly belong together. Dating Fragment IX has proved difficult for lack of evidence. If composed about the same time as the tales in Fragment I, the Host's and Manciple's mocking of the Cook as too drunken to tell a tale would jar with the fragmentary Cook's Tale. Larry Benson says: "Perhaps Chaucer intended to cancel the Cook's Prologue and the fragmentary Cook's Tale."<sup>62</sup> If so, the writing of Fragment IX followed that of the close of Fragment I. Does the repetend distribution, then, imply that Fragment IX and The General Prologue were composed about the same time, after the rest of Fragment I? Or are both The General Prologue and Fragment IX unusually "conventional"?

Table X lists the repetends common to The General Prologue and The Manciple's Tale. Repetends occur at forty-nine places in the tale, about once every five lines.

Table X: Common MancT-GP Repetends

MancT	Repetend	GP	DB No.
107	lusty   bach[ie]ler	80	20
108	in   all*e*   th.*   worlde	412	142
110	u*p*on   a   da[iy]e*	19, 703	238
113-14	s[aioy]nge*n*t*h*s* & pleye*n*	236	97
124	honoure*d* & worthynesse	50	12
129	in   ( his , thyn , hire* , hethen , myne* , ootheres , straunge , youre* , the )   h[ao]nde*s*	108, 495	285
130	in   ( his , that , the , every , this , myn , thyn , Cristes , noon , hire )   hous	252, 345, 578	202
134	of & m[ae]n*e*s*	575	321
134	every   man*e*s*	841	289
135	tel*e*n*t*h* & tales*	330, 731, 735, 792, 831, 847	251

136	in   all*e*   th.*   worlde*	412	142
138	s[aioy]nge*n*t*h*s* & m[uy]rie*r*I*y*	714	240
139	in   ( his , that , the , every , this , myn , thyn , Cristes , noon , hire )   hous	252, 345, 578	202
143	( so*the*r*s* , so*thly , so*thnesse , so*thfastnesse ) & ( s[ae][iy]d*e*n* , se[iy]s*th*o*[uw]* )	468	158
146	every   w[iy]ght	842, 846	290
146	in & degre*	744	461
148	thou*ghte* & werke*s*	479	421
148	goode*   w[iy]f.*	445	150
165	( mete   ( and , his , or )   dr[aioy]nke* ) , ( mete   and   dr[aioy]nke*   of   all*e*   deynte*s* )	345	119
166	of   all*e*   deynte*s*   that   ( m[ae]n , thou )   ( koude , kanst )   b*i*thynke	346	394
168	of   gold	160, 196, 563	304
175-76	flesch & milk	147	53
176	( of   s[iy]lk ) , ( of   col-blak   s[iy]lk )	329, 357	309
177	( saugh , seen )   a   mous	144	52
178	flesch & milk	147	53
179	in   ( his , that , the , every , this , myn , thyn , Cristes , noon , hire )   hous	252	202
208	worde*s* & ( ( cosyn   to ) , ( ac*ord.*   with ) , ( ( as , bothe , eek )   in ) ) & de*-de*	742	255
209	( speken* , tellen* , ryme ) & proprely	729	250
213	of   ( what , his , heighe* , hye* , smale* , ech , no , lou*g*w*h*e* )   degre*	40, 55	334
232	so   gre*te*   an*	318, 674	130
232	( gre*te*   harme*s* ) , ( gre*te*   an   harme*s* )	385	133
234	m[ae]n   clepe.*	620	213
245	s[aioy]nge*n*t*h*s* & m[uy]rie*r*I*y*	714	240
249	for   his   worthynesse , for   all*e*   thy   worthynesse	50	338
261	with & ( eye , eyen )	10, 625, 753	322
263	h[iy]m   thou*ghte*	682	232
276	( of   hewe ) , ( of   hire*   hewe ) , ( of   a   leden   hewe )	458	414
283	every   man*e*s*	841	289

<sup>62</sup>Riverside, p. 952.

297	( all*e*   ( his , hir , thy , my , oure )   l[iy][fv].* ) , ( in   all*e*   ( his , my , thy , hir )   l[iy][fv].* )	71, 459	72
309	by & ensample	520	430
310	t[oa]*k.* & ke*pe*	398, 503	139
318	a   goddes   name	854	301
326	many   a   man*e*s*	229	69
330	at   all*e*   tymes*	534	189
331	of   God	573	440
331	( in   ( honours* , honourable ) ) , ( in   greet   honour ) , ( in   ful   greet   honour )	582	444
346	with & heed	551	436
350	muche*1* & litel*	494	177
361	( heighe* , hye* ) & lou*g*w*h*e*	522	185

The longest gap is twenty-eight lines (180–207); the greatest concentration, thirteen repetends, occurs at lines 129–48. Other than repetend no. 251 (“tel\*e\*n\*t\*h\* & tales”), at line 135, none applies especially to the Manciple’s story. Most repetends focus on very common nouns (“hand,” “house,” “man,” “world,” “merry,” “sooth,” “wight,” “degree,” “thought,” “work,” and “wife”) or verbs (“tell,” “say,” and “play”). All belong centrally to Chaucer’s general worldview. Repetends no. 394 and 255 (at lines 166 and 208), however, stand out for length and specificity. The first, “of | all\*e\* | deynthe\*s\* | that | (m[ae]n , thou ) | koude , kanst ) | b\*i\*thynke,” has three content words, a prepositional phrase, and a complete subordinate clause. Whiting calls the second a sentential phrase or maxim: “worde\*s & ( ( cosyn | to ) , ( ac\*ord.\* | with ) , ( as , bothe , eek ) | in ) ) & de\*de\*.” It also has three content words. Finally, at least three merisms, also specific, occur (lines 148, 350, 361; cf. 165, 175–76, 178).

Two factors in the unexpectedly numerous common repetends point to the conventionality of The Manciple’s Tale as an explanation: the pervasiveness of common nouns and verbs, and the spread of repetends throughout the tale. The merisms and the two

very specific repetends suggest that Chaucer echoed himself because he wrote the two works in the same period. Lacking other guidance, we should take both factors seriously.<sup>63</sup>

## CONCLUSION

In this essay I discuss phrasal repetends from The General Prologue that occur only in *The Canterbury Tales*. The organization of these repetends reflects Chaucer’s mind and suggests that the key to his remembrance may lie in understanding human memory itself rather than rhetorical or literary traditions. Repetends, falling into semantic clusters, may be part of Chaucer’s unique “signature.” Changing with time, like most people’s handwriting, such clusters appear useful in mundane tasks such as assigning a chronology to Chaucer’s poems and, once fully collected and analyzed, may enhance knowledge of how Chaucer’s usage differed from that of his contemporaries.

<sup>63</sup>My analysis of the distribution of all the Manciple’s repeated phrases through the tales confirms the distribution found here (“Phrasal Repetends and ‘The Manciple’s Tale,’” in *Computer-based Chaucer Studies*, ed. Ian Lancashire [Toronto, forthcoming 1993]).

## APPENDIX:

Single-line Repetends in *The Canterbury Tales*

1. Housbondes at chirche dore she hadde fyve (GP 460, WBP 6 ["dore I have had . . ."]; *Riverside*, p. 865)
2. \* . . . wyne; / And ther I lefte I wol ayeyn bigynne (KnT 891–92, SqT 669–70)
3. For in this world he loved no man so (KnT 1196, SNT 236; *Riverside*, p. 831)
4. \* In swich a gyse as I you tellen shal (KnT 1208, SqT 332 [" . . . I shal to yow seyn"], 540 [" . . . I have seyde above"])
5. \* But seen his lady shal he nevere mo (KnT 1352, 1357 ["For seen . . ."])
6. \* That is, or shal, whil that the world may dure (KnT 1360, MLT 1078 ["Hath seyn or shal . . ."])
7. \* Is riden into the feeldes hym to pleye (KnT 1503, Melibee 968)
8. For pitee renneth soone in gentil herte (KnT 1761, MerT 1986 ["Lo, pitee . . ."], SqT 479 ["That pitee . . ."]; *Riverside*, p. 834)
9. \* A bowe he bar and arwes brighte and kene (KnT 1966, FrT 1381)
10. \* This is th'effect; ther is namoore to seye (KnT 2366, MancT 266)
11. \* In al the world to seken up and doun (KnT 2587, MilT 3252)
12. Allone, withouten any compaignye (KnT 2779, MilT 3204; *Riverside*, p. 840)
13. \* a wyf, / Which that he lovede moore than his lyf (MilT 3221–22, MancT 139–40)
14. With empty hand men na haukes tulle (RvT 4134, WBP 415; *Riverside*, pp. 851, 869; Whiting H89)
15. \* The day is come, I may no lenger byde (RvT 4237, MerchT 1856 ["Now day . . . lenger wake"])
16. \* For by that lord that called is Seint Jame (RvT 4264, WBP 312 ["Now by . . ."])
17. And lordynges, by youre leve, that am nat I (WBP 112, MerchT 1456 ["But sires, by . . ."], Mel 1085 ["And sire, by . . ."]; *Riverside* p. 866)
18. \* Now, sire, now wol I telle forth my tale (WBP 193, PardT 660 ["But, sires, now . . ."])
19. \* And he up stirte as dooth a wood leoun (WBP 794, SumT 2152 ["The frere up . . ."])
20. \* Whan that she saugh hir tyme, upon a day (WBT 901, MerchT 2001 ["And whan she .."])

21. \* "Nay, thanne," quod she, "I shrewe us bothe two!" (WBT 1062, NPT 3426 ["quod he . . ."])
22. \* And it shal been amended, if I may (WBT 1097, SumT 2175)
23. \* And by that lord that clepid is Seint Yve (SumT 1943, ShipT 227; *Riverside*, p. 878)
24. \* And forth he gooth, with a ful angry cheere (SumT 2158, CIT 366 ["Ful sobre . . ."])
25. \* And in his herte he rolled up and doun (SumT 2217, PardT 838 ["Ful ofte in . . . rolleth . . ."])
26. Thanne was she oon the faireste under sonne (CIT 212, FrankT 734; cf. *Riverside*, pp. 881, 896)
27. "'This is ynogh, Grisilde myn,'" quod he (CIT 365, 1051; *Riverside*, p. 882)
28. \* That day that maked was oure mariage (CIT 497, 854 ["The day . . ."])
29. That is bitwixe an housbonde and his wyf (MerchT 1260, FrankT 805; *Riverside*, p. 885)
30. \* And after that he sang ful loude and cleere (MerchT 1845, Topas 771 ["She sang . . ."])
31. \* That is or was sith that the world bigan (FrankT 930, MancT 120)
32. \* By thilke God that yaf me soule and lyf (FrankT 984, ShipT 115 ["For, by that God . . ."])
33. \* And toold hym al as ye han herd bifore (FrankT 1465, 1593 ["And tolde . . ."])
34. \* And forth he gooth, no lenger wolde he tarie (PardT 851, NPT 3034 ["wolde he lette"], ShipT 250 ["And doun . . ."])