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INTRODUCTION

In this article we propose to characterize the accentual-syllabic meter known as iambic pentameter in the form in which it was first used by Geoffrey Chaucer. We view this meter as an abstract pattern which the poet has created or adopted, perhaps only in part consciously. The poet uses this pattern as a basis of selection so that he may choose out of the infinite number of sentences of natural language those which qualify for inclusion in the poem. In the verse of interest here the pattern consists in the regulation of two linguistically given properties, the number of syllables in a line and the placement in a line of syllables bearing linguistically given stress greater than that of adjacent syllables. Thus we begin with the assumption that stress placement is a relevant linguistic fact which is utilized by the English poet

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writing in the iambic pentameter tradition. (It is not, of course, the only linguistic given utilized by the poet.) We shall restrict our attention to stress placement and the number of syllables only insofar as they participate in the construction of a single line of verse. We shall not attempt in any systematic way to go beyond the single verse line to more complex structures.¹

Let us first turn our attention to the facts of English stress placement. In a word like *celestial*, a speaker of modern English knows that the primary stress is on the second syllable, thus *celestial* and not *celestia¹*.

There are other facts about English stress which are also relevant for purposes of meter. Thus compound nouns

¹ While this article deals primarily with iambic pentameter, we have quoted on occasion relevant examples from certain of Chaucer's works written in iambic tetrameter, in particular the *Romaunt of the Rose* (RR), the *Book of the Duchess* (BD), and the *House of Fame* (HF).

Abbreviations of titles throughout follow those of *A Concordance to the Complete Works of Chaucer and to the Romaunt of the Rose* compiled by John S. P. Tatlock and Arthur G. Kennedy (The Carnegie Institution of Washington, 1927). All quotations come from the *Concordance from The Complete Works of Geoffrey Chaucer*, ed. F. N. Robinson (Boston, 1933).

such as *blackbirds* are clearly stressed $\overset{1}{black}\overset{2}{bird}s$ and not $\overset{2}{black}\overset{1}{bird}s$. Indeed, the latter stress assignment automatically entails the sequence being understood as the noun phrase *black birds* and not the compound noun. Similarly, if a complex noun like *kitchen towel rack* is stressed as $\overset{2}{kitchen}\overset{1}{towel}\overset{1}{rack}$ it is understood as meaning 'a towel rack for the kitchen' while if it is stressed as $\overset{1}{kitchen}\overset{1}{towel}\overset{3}{rack}$ it is understood as meaning 'a rack for kitchen towels.' And if it is stressed as $\overset{1}{kitchen}\overset{2}{towel}\overset{3}{rack}$ it is clear that it is un-English.²

Still other facts about English are obvious to the native speaker. Thus articles such as *a*, and *the*, as in *a new home*, *the old man*, prepositions such as *of* or *in* in phrases such as *of the people*, *in the house*, conjunctions such as *and* and *or*, pronouns such as *him*, *his*, etc., are without stress, or with very little stress.³

²In American English the normal stress pattern in adjective + noun phrases is 2 1, thus $\overset{2}{black}\overset{1}{bird}$, $\overset{2}{old}\overset{1}{man}$, etc. Commentators on British stress, however, observe that in such syntactic units the stress distribution is level, $\overset{1}{black}\overset{1}{bird}$ as opposed to $\overset{1}{black}\overset{2}{bird}$. Thus Daniel Jones, *Outline of English Phonetics*, 9th ed. (Cambridge, 1960), §959 observes, "Foreign learners should note particularly the case of one word qualifying another. Both the words have as a rule strong stress." In the ensuing examples of adjective + noun phrases, he makes no distinction between the level of stress on either constituent. This suggests that the subordination of the adjective stress to the noun stress in noun phrases is a peculiarity of American English. In what follows, then, we shall assume stress subordination in compounds but level stress in noun phrases and the like. It will be seen below that this assumption is consistent with the metrical practice of Chaucer and other English poets. The assumption of the (American) 2 1 stress pattern in these phrases renders a number of regular lines metrically deviant. Examples of such lines will be found on p. 200.

³These facts are intended to convey a picture of English stress under neutral emphasis. Thus in American English the noun phrase

Beginning with the observation that a poet (like his audience) has at his disposal certain linguistic givens, we may ask how these linguistic givens are utilized for purposes of prosody. There are, of course, two possibilities. The first is that the poet develops a metrical form which is completely independent of the linguistic givens of stress so that *celestial* is as acceptable as $\overset{1}{celestial}$. This hypothesis entails that the poet may radically depart from the linguistic basis of his (and his audience's) language. The second possibility is that the poet does not violate the linguistic givens of his language but rather incorporates them into a metrical pattern which, while extra-linguistic in that the pattern is not a fact of the spoken language, is nonetheless perfectly compatible with the linguistic givens of the spoken language.

An advocate of the first view is Ten Brink⁴ who supposed, for example, that while the facts of Chaucer's spoken English demanded a stress pattern of the sort $\overset{1}{cominge}$, nonetheless Chaucer violated this linguistic given by actually shifting the stress for metrical purposes to rhyme with words like *springe*, thus $\overset{1}{cominge}$.⁵

On this view the present lines which have been

black bird in a sentence such as "I saw a black bird" has the pattern 2 1. This is not to say that the noun phrase could not, in such a sentence, receive a 1 2 stress pattern, prompted, for example, by a request for clarification: "What color bird?" But such an emphatic stress pattern departs from the normal distribution of stresses in simple declarative statements. In general, we shall assume neutral stress distribution in the lines of verse which follow unless there are strong contextual reasons for supposing otherwise.

⁴See B. Ten Brink, *The Language and Metre of Chaucer*, 2nd ed. rev. F. Kluge, trans. M. Bentinck Smith (London, 1901), §279.

⁵For a discussion of this point see M. Halle and S. J. Keyser, *The Evolution of Stress in English* (forthcoming).

devised so that a word boundary falls after the tenth, twentieth, thirtieth etcetera syllable is written in perfect iambic pentameter.

Moreover, on this view the meter of a line such as Keats's:

Silent upon a peak in Darien

which is metrically regular, cannot be distinguished from that of the title of the sonnet

On first looking into Chapman's Homer

which is not. Given a principle of stress shift for metrical purposes, both lines must be viewed as regular. But this clearly is not the case. Indeed, it is precisely the difference between these two lines that a successful theory of prosody ought to characterize.

In what follows we shall adopt the second alternative, namely that basically the poet does not violate the linguistic givens of his language but, rather, attempts in general to utilize them in actualizing the metrical pattern.

From this point of view, a line like:

- (1) Celestial, whether among the thrones, or named

from Milton's *Paradise Lost*, Book XI, line 296 (hereafter PL. XI. 296) must be viewed as beginning with an unstressed syllable followed by a stressed syllable precisely because it is a linguistic given that *celestial* is stressed as *celestial*. Similarly, because ¹*region* is so stressed, we suppose that a line such as:

- (2) Regions of sorrow, doleful shades, where peace (PL. I. 65)

begins with a stressed syllable followed by an unstressed syllable.

It has been customary to identify these lines as examples of a meter called

'iambic pentameter', a poetic meter which has been used by English poets from Geoffrey Chaucer to the present. In what follows we shall adopt this name without prejudice and attempt to characterize in as precise a fashion as possible what we intend by it.

Suppose, then, that by iambic pentameter one meant a metrical form which adhered to the following metrical principles:

Principle 1.

The iambic pentameter line consists of five feet to which may be appended one or two extra-metrical unstressed syllables.

Principle 2.

The iambic foot consists of two syllables.

Principle 3.

Each even syllable is strongly stressed.

Principle 4.

Each odd syllable is less strongly stressed.

We shall refer to the above principles as the strict interpretation of the iambic pentameter line. Notice that (1) above is a regular line in terms of these principles.

Thus the line may be scanned as follows:

Celestial, wheth'r among the thrones,
or named.⁶

But notice that (2) above may now be offered as a counter-example to the iambic pentameter theory, thus:

Regions of sorrow, doleful shades,
where peace

⁶For elision of -e before an r which separates unstressed vowels in Milton, see Robert Bridges, *Milton's Prosody* (Oxford, 1921), pp. 29ff. See also pp. 206ff. below for our treatment of such sequences in Chaucer. In the matter of vowel elision as well as in certain others, Bridges arrived at conclusions that are substantially identical with those presented here.

This is a counter-example precisely because it is a linguistic given that *regions* is stressed ¹*regions* and not ¹*regions*. The strict iambic pentameter theory would force us to regard this line as irregular, whereas in fact lines with "inverted first feet" are perfectly regular in iambic verse.

Another counter-example to the strict iambic pentameter theory is the opening couplet of Shakespeare's XXXth sonnet:

- (3) When to the sessions of sweet,
 silent thought
I summon up remembrance of
things past

In the first line of (3) the strict iambic theory requires that the preposition *to* receive greater stress than *when*, and *of* receive greater stress than *sweet* in violation of the linguistic givens of spoken English. Moreover, it requires that in the phrase *sweet, silent thought* the adjective *sweet* receive less stress than *silent*. But since this stress pattern is in direct violation of English, the line must be classed as deviant.

Similarly, the second line of (3) would also be classed as irregular by the strict iambic pentameter theory, for clearly the preposition *of* has less stress than the following noun *things*. Thus the strict iambic theory entails that lines which abound in the writings of the best poets are metrically deviant. Evidently such a theory cannot be considered tenable.

It is obvious on other grounds as well that this interpretation is untenable. Thus the strict interpretation says, in essence, that a poet writing in this meter is writing doggerel. And it requires little poetic sensitivity to know that Chaucer, Milton, Pope and Lowell do not write doggerel. Indeed, when Ten Brink assumes legitimate shifting of the stress of the spoken language to conform to the meter, it is noteworthy that the meter he is attempt-

ing to conform to is strict iambic pentameter, that is, doggerel. This fact in itself renders his principle of the "legitimate stress shift" suspect (see fn. 4).

Prosodists have, of course, been well aware of these difficulties with the strict iambic pentameter theory. They have tried to shore up the theory by giving a list of allowable deviations. Thus, P. Baum lists in his *Chaucer's Verse* (Durham, N. C., 1961), pp. 13-14, as poetical "liberties and licenses," the following departures from the strict iambic pentameter: "(1) the weak stress, including secondary accent in polysyllables, in different positions in the line; (2) the heavy foot or spondee; (3) the inverted foot or trochaic; (4) the variable use of syllabic *e*; and (5) elision, contraction, and the slurs which may or may not certify the admission or exclusion of tri-syllabic feet."

In very similar terms Wimsatt and Beardsley in their important article on "The Concept of Meter" (*PMLA*, LXXIV, 1959) speak of "the inverted first foot, the dropping of the first slack syllable, the extra slack syllable internal to the line (elided, or not elided in the anapest) . . ." as of deviations from the strict iambic pentameter that "occur so often as to assume the character of an accepted complication of the norm."

The introduction of "allowable deviations" constitutes a significant modification of the theory. The modified theory is clearly an improvement over the strict iambic interpretation in the sense that unlike the latter it is not contradicted by a significant fraction of the lines it is supposed to characterize. But even with these modifications the theory does not recommend itself especially, for it fails to provide any explanation for the fact that only certain deviations are tolerated and not others. Since the allowed deviations share only the property of being included in a list, why could not other deviations also be included in such a list? Rather than look upon headless lines, lines with

an inverted first foot etc., as somehow deviant—though perhaps less deviant than some other lines—we propose below a set of principles or rules which by their nature yield a large variety of metrical patterns, in the same way that rules of syntax yield a large variety of syntactic patterns. With respect to these rules, there will be one of two possible judgments. Either a line is metrical by virtue of conformity to the rules, or else a line is unmetrical by virtue of nonconformity to the rules. As we have said, it is precisely this distinction which a theory of prosody of a given poet or poetic tradition must make.⁷

The rules we propose establish an abstract pattern that is satisfied by particular arrangements of linguistic givens. They are not to be equated with precepts for performing a particular type of verse.⁸ The meter of a poem determines to a great extent the manner in which the poem is to be performed. It never determines the performance completely, however, any more than a score of a sonata completely determines the way in which the sonata should be performed. The

⁷ In this connection we cite the following passage from Robert Bridges' *A Letter to a Musician on English Prosody* which, in our view, captures precisely the role of prosody in poetry: "What, then, exactly is Prosody? . . . it denotes the rules for the treatment of syllables in verse, whether they are to be considered as long or short, accented or unaccented, elideable or not, etc., etc. The syllables, which are the units of rhythmic speech, are by nature of so indefinite a quality and capable of such different vocal expression, that apart from the desire which every artist must feel to have his work consistent in itself, his appeal to an audience would convince him that there is no chance of his elaborate rhythms being rightly interpreted unless his treatment of syllables is understood. *Rules must therefore arise and be agreed upon for the treatment of syllables, and this is the first indispensable office of Prosody*" (italics ours MH/JK). The essay from which this passage is drawn is reprinted in a useful anthology edited by Harvey Gross entitled *The Structure of Verse, Modern Essays on Prosody* (New York, 1966), pp. 86-101.

⁸ As is frequently done; for example, by

study of prosody is the study of the abstract patterns—the different arrangements of linguistic givens—that underlie all performances of a given poem; it is not the study of the myriad ways—some good, others bad, most indifferent—in which a poem might be recited.

MIDDLE ENGLISH STRESS

It is obvious that a theory of prosody which takes the linguistically determined stresses of a language as part of the elements manipulated by the poet assumes an understanding of what these stresses are. In other words a theory of prosody based, in part at least, upon stress placement necessarily presupposes a theory of stress placement. In modern English such a theory of stress placement may be taken for granted since the prosodist, the poet and the reader, as speakers of the same language, have all internalized the same system of stress assignment. In discussing Middle English prosody we may not make this assumption. We must, therefore, give a brief summary of the Middle English stress system, especially as our picture of it does not coincide in all points with the one found in the handbooks.

We begin by considering two separate issues:

- i) the rules for stress subordination in compounds and other sequences larger than a single word

Seymour Chatman, "Robert Frost's 'Mowing': An Inquiry into Prosodic Structure", *Kenyon Review*, XVIII, 1956, pp. 421-38, "The present analysis attempts to describe the verse line as it is actually 'performed.' It avoids the unfortunate assumption that performances involve 'exceptions' to some kind of norm. In fact, it suggests that the poem as document may be lifeless until it is actualized into sound pattern. The analysis starts with the performance, not the norm; and it suggests that the metrical tension of much successful verse lies in the poet's subtle modification and evasion of the expected, plus the performer's keenness in interpreting the poet's intentions."

ii) the rules for stress assignment
in a single word

With regard to the former we assume that in compound nouns, verbs, and adjectives the main stress of the second element is lower than that of the first. We shall assume that Chaucer stressed *brymston*, *greyhound*, *cartwheel*. On the other hand, in the constituents that are not nouns, verbs or adjectives and that contain more than one word, such as noun phrases composed of an adjective followed by a noun, we shall suppose that stress subordination does not occur. Thus a phrase such as *the first prize* or *a useful book* we shall treat as having "level stress". It is important to note that in this regard we are departing from contemporary American practice in which stress subordination does occur in such phrases, yielding patterns like *the first prize*, *a useful book* (see fn. 2 above). These principles of stress subordination account for the fact that a) the first syllable of compounds consisting of two monosyllabic words commonly occupies an even position, whereas b) any constituent of a syntactic unit that is not a compound noun, adjective or adverb may be found in an even or an odd position. Examples illustrating a) are:

1. Out of the *dongbil* cam that word ful right! (PF.597)
2. Men clepen hym an '*outlawe*' or a 'theef' (H.Mcp.234)
3. In al the toun nas *brewhouse* ne taverne (A.Mil.3334)
4. Twelve spokes hath a *cartwheel* comunly (D.Sum.2257)

Examples illustrating b) are:

1. Oold fish and yonge flesh wolde I have fayne (E.Mch.1418)
2. His eyen caste on hire, but in sad wyse (E.Cl.237)
3. The Millere was a stout carl for the nones (A.Prol.545)

4. A good Wif was ther of biside Bathe (A.Prol.445)

The traditional view concerning the rule for stress assignment in simple words has been that Middle English possessed two kinds of words, native words and Romance words. Similarly, it was supposed, Middle English contained two stress rules, one for the native portion and one for the Romance portion. The rule for the native portion was assumed to be identical with that for the bulk of Germanic languages, including Old English, namely a rule which assigned primary stress to the initial syllable of words, excluding prefixes and the like. By this rule *father*, *mother*, *become*, *coming*, received their stress. The rule for the Romance portion of the Middle English vocabulary was assumed to be the Old French stress rule which was essentially like that for classical Latin, though with certain modifications:

Romance stress rule:

1. Assign primary stress to the final vowel of a simple word if that vowel is long.
2. If the vowel is short and followed by any number of consonants, including none, then look at the next to the last syllable.
3. If the penultimate syllable is strong, that is, contains a long vowel, or any vowel followed by two consonants, then assign major stress to the vowel of that syllable.
4. If the penultimate syllable is not strong, then stress the antepenultimate syllable.

Part 1. of this rule is responsible for the stress in *licour*. Part 2. and Part 3. are responsible for the stress in *arrerāge* rhyming with *āge*. (A.Prol.601). Part 4. of this rule is responsible for the stress in words like *taffata* or *Pandarus*.

It is commonly believed that a speaker of Middle English like Chaucer possessed both rules and that he systematically applied one rule for the native portion of the vocabulary and one for the foreign. Since modern English clearly does not have both rules, a change must have occurred. And it is believed by many that the direction of that change was toward complete acceptance of the Germanic rule and rejection of the Romance rule. A typical example of this view is expressed in the following comment by Henry Sweet (*A New English Grammar*, §786, Oxford, 1891):

"In Old French the stress generally fell on the same syllable as in Latin, as in *nature* = Latin *nā·turam*. Through the dropping of final Latin syllables many French words thus came to have the stress on the last syllable, as in *o·nour ho·nōrem*, *pi·te pie·tatem*. When first introduced into ME French words kept their original stress: *nā·tūre*, *o·nur*, *pi·tē*; but such words afterwards threw the stress back on to the first syllable by the analogy of the native E. words, such as •*fader*, •*bodi* becoming •*nātūre*, etc."

We have argued elsewhere⁹ against the traditional view. We have proposed that at the stage of Middle English when the Romance words first entered the language there must obviously have been two stress rules, but that quite soon the Germanic stress rule dropped and the Romance stress rule predominated. We shall not present here the details of our argument; rather we shall touch upon the major points.

To begin with, given a stage of English in which both stress rules were operative, it is crucial to note that the majority of Middle English words from the native portion of the vocabulary were either monosyllabic words or else disyllabic words but with a short final

vowel. As a consequence, the Romance stress rule would assign precisely the same stress to these words as would be assigned to them by the Germanic stress rule, namely initial stress. Thus a word like *father*, *mother* or *bodi* would receive initial stress by either rule. On the other hand, ultimate or penultimate stress could only be assigned in words like *pilgrimāge*, *pitē*, *merci*, *nature*, etc. by the Romance stress rule. Thus, of the two rules, the Germanic stress was largely dispensable; the Romance stress rule was not.

It must be recalled that beside final stressed *licōur*, for example, with a long final vowel, there was also a second variant with initial stress and short final vowel. In the light of this, it becomes obvious that the initial stress of words like *licōur* ¹*pitē*, ¹*merci*, ¹*nature*, is not due to these words being treated as if they were native words, but rather is due to the fact that the long final vowel in these words was simply shortened prior to the operation of the Romance stress rule. Indeed, if we suppose that the shortening of long final syllable vowels was an optional rule in Chaucer's language, then both *licōur* and *licōur* receive stress by the Romance rule, the latter form having first undergone optional shortening of the long final syllable vowel.¹⁰

⁹The precise environment for shortening of long vowels in final syllables is slightly more complicated. Thus a long final vowel or a long vowel before a single final consonant may optionally shorten. A long vowel before more than one final consonant will not shorten, however. Thus *merci* and *licōur* are subject to shortening; *servaunt* is not.

We argue in *Evolution of Stress in English* (forthcoming) that this rule was a native English rule which already existed in the language prior to the influx of Romance words. It is responsible for the short final vowels in words like *wisdom*, *stirrōp* and *wurthlīche* (from earlier *wisdom*, *stigrap* and *wurthlic*). Romance words which entered the language simply fell within the domain of this rule.

¹⁰*The Evolution of Stress in English*, (forthcoming).

A similar systematic alternation among certain words in Middle English has been noted by many scholars, among them Ten Brink.¹¹ Specifically, Ten Brink noted that initial stress in words like *manēre*, *banēre* was often accompanied by loss of final *-e*. He assumed that the loss of final *-e* was due to initial stress and that initial stress was due to these words being stressed according to the Germanic stress rule. Let us suppose, however, that the loss of final *-e*, like the shortening of final long vowels, was an optional rule in Chaucer's Middle English. Let us further suppose that this rule, like the final vowel rule, applied to a word before the stress rule applied. Then we may account for the initial stress in these words as well. Thus *manēre*¹ and *banēre* receive their stress by Part 2 and Part 3 of the Romance stress rule. If, however, the final *-e* dropping rule were to apply to these forms first, then the rule which shortens long vowels in final syllables could operate next to yield *banēr* and *manēr* which would then receive initial stress by Part 2 and Part 3 of the Romance stress rule, thus *banēr*¹ and *manēr*. In a similar fashion *nātūre* would become *nātūr* by the final *-e* dropping rule, then *nātūr* by the final syllable shortening rule and finally *nātūr*¹ by the Romance stress rule.

Thus not only is the assumption that the Germanic stress rule operated in late Middle English unnecessary, but the assumption that the Romance stress rule was operative in Middle English in conjunction with the final *-e* dropping rule and the vowel shortening rule now explains the systematic correspondence between initial stress and short final syllables and between initial stress and lack of final *-e*, a correspondence which, in the traditional view, is accidental. Finally, when one considers that it is necessary to

¹¹ Ten Brink, §257.

postulate the rule which drops final *-e* and the rule which shortens long vowels in final syllables in any case, then it is clear that the assumption that the Germanic stress rule continued to operate in Middle English after the Romance rule entered the language is unnecessary. The facts of Middle English are equally well accounted for without the assumption.

At this point, however, there are certain facts about alternations in Chaucer's line which become quite important. Notice that a word like *cominge* could only receive initial stress, according to our view, if the final *-e* first dropped. Thus a form like *cominge* would be stressed *cominge*¹ by the Romance stress rule, but *coming*¹ if the final *-e* is optionally dropped prior to the operation of the Romance stress rule. Thus we have a systematic alternation between initial stress in a dissyllabic word, and penultimate stress in a tri-syllabic word. This puts certain severe constraints on certain lines in Chaucer. That is to say, if we find a line in which the scansion requires that a word like *cominge* be tri-syllabic, then it must be the case that such a line also requires that *cominge* receive penultimate stress. Otherwise, our theory of stress placement would lead us to suppose exceptional lines in Chaucer. And the supposition of exceptional lines must always be the last resort of the prosodist.

For example, a line like:¹²

But now thi coming(e) is to be so
swete (TC.4.507)

clearly requires that *coming* be initially stressed and dissyllabic. Thus this line is perfectly straightforward. But consider lines such as the following:

The cause of his comyngē thus

¹² The enclosing of *e* in parentheses indicates that the rule which drops final *-e* has applied. Thus orthographic *coming(e)* is phonetically *coming is*.

answerde	(TC.2.1102)
The cause y-told of hir comyng, the olde	(TC.4.141)
The nexte houre of Mars folwyng this	(A.Kn.2367)
Ther maistow seen cominge with Palamon	(A.Kn.2128)

In these lines the meter demands that *comyng* be tri-syllabic and penultimate-stressed.¹³ The view that the Germanic stress rule operated in Middle English could not possibly account for the necessary penultimate stress in these native words. The view that the Romance stress rule operated supplies precisely the desired stress to render these lines regular.

Rhymes such as *cominge* and *springe* further support the view that these words were stressed *cominge* : *springe*.¹⁴

Moreover, the existence of stress doublets such as *comyng* beside *comyng*¹ provides Chaucer with a metrical resource

¹³In the line *Ther maistow seen cominge with Palamon* the meter also requires that *Palamon* be treated as occupying two metrical positions. That this is permissible in Chaucer will be shown below (pp. 206ff.). The alternative which treats *cominge* with initial stress renders the line exceptional.

¹⁴There are two other conceivable explanations for rhymes like *-inge* : *springe*. One is to deny the assumption that in Chaucer only stress bearing vowels may rhyme. But then the absence of rhymes like *the* : *be*, *an* : *man*, etc., would be merely a coincidence. The assumption that only stressed vowels rhyme offers a principled explanation for the absence of such rhymes.

The second possibility is to suppose that *-inge* bears a 2 stress. This is itself based upon the hypothesis that *-inge* bore 2 stress in OE. It seems to us that the view of 2 stress in *-ung* in OE is questionable. But even if one accepts that position, it is noteworthy that the ME reflex of OE *-ing/-ung* is *-ing(e)*. The shift from *u* → *i* is commonly explained as due to alternations of vowel quality in unstressed syllables. (See Bruno Borowski, *Zum Nebenakzent beim altenglischen Nominal-kompositum* (Halle, 1921); Joseph Wright, *Middle English Grammar*, 3 ed. (Oxford, 1925), §134; Sievers-Brunner, *Altenglische Grammatik* (Halle, 1951), §142; Anm. and Alistair Campbell, *Old English*

which he puts to use in passages such as the following:

Gret sweryng is a thyng abhomina-
ble,

And fals swerynge is yet moore
reprevable.

The heighe God forbād swerynge
at al,

Witnesse on Mathew, but in special
Of sweryng seith the hooly Jere-
mye

“Thou shalt swere sooth thyne
othes, and nat lye,

(4) And swere in doom, and eek in
rightwisnesse”

But ydel sweryng is a cursednesse,
Bihoold and se that in the firste
table,

Of heighe Goddes heestes honourable
Hou that the second(e) heeste of
hym is this:

“Take nat my name in ydel or
amys.”

Lo, rather he forbedeth swich
swerynge

Than homycide or many a cursed
thyng;

(C.Pard.631-44)

Grammar (Oxford, 1959), §§204.8, p. 383.) Thus the supposition that OE *-ung*, even if it did bear a 2 stress, became unstressed in ME accounts quite naturally for the shift from *-ung* to *-ing(e)*. Otherwise the shift in vowel quality is quite inexplicable.

Yet a further argument against 2 stress in *-inge* is that it implies that the metrical behavior of ¹*comyng*, etc. would be identical to compound nouns like ¹*brimstoон*. This prediction, however, is not borne out. (See *The Evolution of Stress in English*, ch. 1, forthcoming.)

The alternation from one line to the next of the variants ¹*sweryng* and ¹*swerynge* (for elision see pp. 206ff. below) offers a striking example of the way in which Chaucer makes use of these linguistically given variants for poetic effect. Indeed, without the recognition of such variants operating here, this passage loses both its metrical form and its poetic effect. (Note also other alternations operating here, such as that between *swere* as a stress maximum (see p. 195 above) in the seventh line but not in the sixth and the internal off rhyme in the first line of ¹*sweryng* and ¹*thyng* over against the feminine rhyme ¹*swerynge* : ¹*thyng* in the final lines of the passage.)¹⁵

In summary, then, the theory of stress placement which is entailed by the theory

¹⁵ The passage from the Pardoner's Tale constitutes a variation on Robinson's text based upon our view of the operation of final -e and its effect on stress placement. The reader will notice that in certain instances, in particular *thyng*, we assume a final -e which was not present in the nominative and accusative in Old English. We base our assumption of a final -e in *thyng* on the well-known occurrence in Chaucer of forms with inorganic -e extended to the nominative and accusative cases from the oblique cases. The evidence for such forms is cited in Ruth Buchanan McJimsey, *Chaucer's Irregular -E* (New York, 1942). With respect to *thyng*, she states that no -e is required in 374 "easy scensions" and in 154 rhymes. She adds, however, that in 16 other scensions a reasonable metrical variation would allow a final -e and she also notes the *springe* : *thyng* rhyme in RR 2627 with *springe* in the infinitive. She further notes the line *Thyng that is to reprove* RR 7546 which is deviant without a final -e. Because she finds only 16 examples requiring final -e, she concludes that the statistical evidence legislates against *thyng* with an inorganic -e. This seems to us overly hasty in view of two facts. The first is the existence of inorganic -e in Chaucer in other nouns (for a list of which, see McJimsey, pp. 19-20). The second is the need for an optional -e dropping rule. If it were the case that every example of an -yng*e* rhyme could only be explained, according to us, by the assumption of an inorganic -e in the rhyme word, then our position would indeed be weakened. But a large number of -yng*e* rhymes

of prosody to be outlined below contains the following three rules:

1. Final -e may be optionally dropped at the end of a word.
2. A long vowel in a final syllable may be shortened.
3. The Romance stress rule.

In this brief excursus we have been necessarily informal. Nevertheless the preceding pages embody the major points of the theory of stress placement which accounts for the data provided by Chaucer's poetry.

Before we leave this topic and proceed to a detailed discussion of the theory of prosody which accounts for Chaucer's verse, assuming this theory of stress placement, an interesting and quite independent result of this theory is worth mentioning. Elsewhere it has been shown that the rule which governs placement of stress in modern English words is essentially the Romance stress rule stated above, although with several modifications due in large part to the great influx of learned words in the 16th and 17th centuries. The fact that our assumptions lead us to postulate the Romance stress rule for Middle English as well can hardly be a coincidence. Rather it seems that, in the course of the development of English, the Germanic stress rule was rendered superfluous by the large influx of Romance words into English after the Conquest. This rule dropped out and the Romance stress rule remained from Middle English into present day English as the dominant rule for the assignment of stress in simple words.

THE THEORY OF CHAUCERIAN PROSODY

We have characterized above the strict iambic pentameter interpretation of are paired with infinitives and finite verb forms where the -e is historical. Thus the assumption of an inorganic -e does not seem at all implausible.

Chaucerian verse by means of a set of principles or rules. These principles taken together constitute a theory of prosody, albeit an inadequate one. The principles assume and arrange in various patterns certain theoretical entities, such as the foot, which nowhere appear in the actual line of verse. Prosodists have, in general, recognized the theoretical nature of their entities. Thus, Paull Baum (p. 11) asserts that "Chaucer's line is a series of five iambs," and then adds in a footnote, "For this flat statement there is to be sure only deductive evidence. If it must be regarded as in the first instance an assumption or an hypothesis, it can be tested in the usual ways of corroboration and accounting for apparent exceptions."

The theory that we propose for the Chaucerian iambic pentameter is framed in terms of metrical constructs which are, to a certain extent, familiar and relates these in a particular manner to the sequences of speech sounds that make up a given line:

Principle 1.

The iambic pentameter verse consists of ten positions to which may be appended one or two extra-metrical syllables.

Principle 2.

A position is normally occupied by a single syllable, but under certain conditions it may be occupied by more than one syllable or by none.

Condition 1.

Two vowels may constitute a single position provided that they adjoin, or are separated by a liquid or nasal or by a word boundary which may be followed by *b-*, and provided that one of them is a weakly stressed or unstressed vowel.

Condition 2.

An unstressed or weakly stressed monosyllabic word may constitute a single metrical position with a preceding stressed or unstressed syllable.

Principle 3.

A stress maximum may only occupy even positions within a verse, but not every even position need be so occupied.

Definition.

A stress maximum is constituted by a syllable bearing linguistically determined stress that is greater than that of the two syllables adjacent to it in the same verse.

Each principle embodies several alternatives, and the possible employment of Condition 1 and/or 2 increases further the number of alternatives. The order in which the alternatives are given is significant. Thus the first alternative within each principle represents what we shall consider the most neutral actualization of the metrical pattern. The subsequent alternatives yield lines which are perfectly regular in that they violate no rule. However, they represent a more complex actualization of the metrical pattern. Thus a line in which each position is occupied by a single syllable and in which each even position is actualized by a stress maximum is deemed neutral. Lines, however, which exhibit even positions without stress maximum, or lines which exhibit polysyllabic (or empty) positions are considered to be more complex actualizations of the metrical pattern.¹⁶

Differences in complexity of an analogous sort are found in syntax. For

¹⁶We have omitted the constraint that Chaucer's lines rhyme because it plays no role in what follows, though a complete list of Chaucer's principles must clearly include rhyme, as well as stanza construction, etc. The one aspect of rhyme in Chaucer which we have called attention to (see fn. 14) is that for two sequences to rhyme they must bear some degree of stress (as well as share a sequence of identical segments to the right of the stress bearing segment).

It will be seen that the principles outlined above may be readily formalized; cf. Appendix below, where a formal statement of the principles may be found.

example, a sentence such as *The man who casts the first stone is innocent* is as regular as *The man the first stone is cast by is innocent*, though it is obviously less complex than the latter.

With respect to metrics, differences in complexity have traditionally been viewed as instances of metrical tension. The difficulty with this view, however, is that it confuses the essential distinction between more complex and less complex lines with the distinction between regular and irregular lines.¹⁷

SCANSION

Let us turn, then, to the examples. To begin with, the most neutral actualization of the iambic pentameter line is, as we have stated, one in which each syllable occupies one metrical position and in which each even position is occupied by a stress maximum.

The following lines are typical:

- Hir brighte heer was kembd, un-
tressed al (A.Kn.2289)

(5) And, sooth to seyn, vitaille greet
plentee (B.ML.443)

Ye shal be deed, by myghty Mars
the rede! (A.Kn.1747)

In these lines we use the ' to indicate that the syllable so marked is a stress maximum; that is, it has greater stress than the surrounding syllables. Thus this mark expresses a relationship between the syllable and its environment. It says nothing whatsoever about the degree of stress of the syllable, merely that, whatever it is, it is greater than that of the two neighboring syllables.

Notice that as a consequence of our definition of stress maximum we find that

¹⁷The concept of a more or less neutral actualization of a line is closely related to the concept of markedness in linguistics. (Cf. N. Chomsky and M. Halle, *The Sound Pattern of English*, forthcoming.)

in the first two lines of (5) the tenth position is not occupied by a stress maximum since the environment to the right of the tenth syllable contains no syllable. In the last line of (5), however, the extra-metrical syllable renders the first syllable of *réde* a stress maximum. The occurrence of a stress maximum in the tenth position will depend on whether there is an extra-metrical syllable added since Chaucer normally places a stress bearing syllable in the tenth position. This is related to Chaucer's rhyming practice which requires that only syllables bearing some degree of stress may rhyme. As a consequence, the stress maximum in the tenth position is without interest, and we shall ignore it in all subsequent scansions.

It should be obvious, however, that in the same way that a stress maximum does not occur in the tenth position of a line without an extra-metrical syllable, so, too, a stress maximum may never occur in the first syllable of a line. A consequence of this is that lines in which the first syllable bears stronger stress than the second syllable are as metrically regular as those in which the stronger stress falls on the second syllable.

Examples of such lines are:

- (6) Kepte ^fhir ^hestat, and both ^hof ^hyonge
and old ^h (TC.1.130)

I, your Alceste, whilom quene of
Trace ^h (LGW.432)

The lines in (6), so-called "inverted first feet," are extremely common in Chaucer, so common in fact that prosodists have been forced to allow for them as being, not wholly iambic as are the lines in (5) but, nonetheless, "permissible deviations." In terms of the theory presented here, the lines require no special comment. They are a natural

consequence of a theory which bases its prosodical analysis on stress maxima and even position occupancy. Indeed, this theory provides a natural explanation for the occurrence of lines such as these, while, in terms of a modified strict iambic pentameter theory, there is no more reason to expect to find this particular deviation than one, say, in which the second and fourth feet are occupied by trochees.

It was observed by Jespersen in his "Notes on Meter" that while iambic lines may have an inverted first foot, trochaic lines may not. Thus, for instance, Longfellow's

Life is but an empty dream
is rendered unmetrical if the initial trochee is replaced by an iamb, as in

A life's but an empty dream
or

To live's but an empty dream

The reason for this asymmetry between iambic and trochaic lines is clear once it is realized that trochaic verses have stress maxima only on odd positions in the verse and that an initial iambic foot locates a stress maximum on the second (i.e., on an even) position in the line, in direct violation of the trochaic principle.

A further consequence of the rules, in particular of Principle 3, is that one would expect to find lines in which several even positions, namely, the 2nd, 4th, 6th and 8th, are not occupied by stress maxima. Indeed, one ought to find lines in which this is true of only one even position per line and also of more than one. The only constraint is that a line in which all the even positions are unoccupied by stress maxima is highly unlikely in view of the natural stress patterns of the language. (We will see below, however, that such lines do occur.)

The lines in (6) already provide examples of verses without a stress maximum in the second position. To turn then to examples in which other even positions are not actualized by a stress maximum, we may cite the following lines:

Examples in the fourth position are:

And weddede the /queene /Ypolita
(A.Kn.868)

(7) In /armes, with a thousand /shippes,
wente (TC.1.58)

To /preye for the /peple, and do
servyse (D.Sum.1897)

Examples in the sixth position are:

Was /sent to /Corynthe in ful /greet
honour (C.Pard.604)

(8) That /whilom /japedest at /loves
péyne (TC.1.507)

That /I wol /lette for to /do my
thynges (B.NP.4279)

Examples in the eighth position are:

And /when he /cam, hym /happede,
par /chaunce (C.Pard.606)

(9) Of /yonge /folk that /haunteden /folye
(C.Pard.464)

The /droghte of /March hath /perced
to the /roote (A.Prol.2)

The careful reader may, at this point, wonder about the first line in (7). Thus the proper name *Ypolita* is not shown above with a stress maximum on the antepenultimate syllable so that, in effect, this line is actually an example of a line without stress maxima in the fourth and eighth positions. Our position on this question must remain open. It strikes us as reasonable that *Ypolita* would contain a secondary stress on the antepenultimate syllable. Indeed, in polysyllabic words in general one would expect to find in Middle English as in contemporary English secondary stress placement elsewhere in the word. The difficulty is that our only source of stress in words is the Romance stress rule (see above) which supplies primary stress only. Therefore, it is impossible to say with certainty (though quite possible to conjecture) that words like *citrinacioun*, *superfluytee*, *abominable*, *Ypolita*, etc. had 2 stressed

syllables, perhaps by some rule similar to the rule which distributes 2 stress in modern English in words like *Oklahoma*, *Mississippi*, or in words like *hurricane*, *advocate* (verb). In view of this limitation on our knowledge of secondary stress placement in Middle English we shall take the conservative (and no doubt artificial) position that simple words are supplied with only a single stressed syllable. It should be pointed out, however, that if secondary stress placement is assumed to have been similar to that in contemporary English, this will not result in exceptional lines; rather lines supplied with secondary stress will simply require reclassification.

Consider, for example, the following line:

- (10) So dul ys of his bestialite
(TC.1.735)

In terms of our convention this line exhibits a stress maximum in the second position only. If secondary stress were supplied, the word would be *bestialite*. This would not make (10) a counter-example, but rather a line which exhibits stress maxima in the second, sixth and eighth positions. In general, then, we shall ignore such alternative analyses especially since we have been unable to uncover lines which, when supplied with secondary stress, provide counter-examples to our theory.

We mentioned earlier that within the space of a verse the likelihood of finding phrases which contain only one linguistic stress is extremely small, and so with two stresses. As a consequence, lines lacking three stress maxima are not very common. The line in (10) above is a possible example of a line without a stress maximum in the fourth, sixth and eighth positions.

Examples without stress maxima in the second, sixth and eighth positions are:

By superfluytee abhominable
(C.Pard.47)

- (11) Of thy religiou and of thy bileeve
(G.SN.427)

And of oure silver citrinacioun
(G.CY.816)

(Notice that if *superfluytee* is stressed ¹*superfluytee*, a possible option in Chaucer, then the first line in (11) will be reclassified as exhibiting no stress maxima in the second, fourth, and eighth positions.)

Lines without stress maxima in only two even positions are far more common.

Examples without stress maxima in the sixth and eighth positions are:

Nis nat to yow of reprehencioun
(TC.1.684)

- (12) And how this town come to destruccion
(TC.1.141)

In so unskilful an oppynyon
(TC.1.790)

Examples of lines without stress maxima in the fourth and eighth positions are:

In Southwerk at the Tabard as I lay
(A.Prol.20)

- (13) The ravysshing to wreken of Eleyne
(TC.1.63)

The smyler(e) with the knyf under the cloke
(A.KN.1999)

Examples of lines without stress maxima in the fourth and sixth positions are:

Cucurbites and alambikes eek

- (14) As lycour out of alambik, ful faste
(TC.4.520)¹⁸

¹⁸We assume a basic form *alambik* which receives final stress by the Romance rule alone. Notice that the vowel shortening rule, if applied, would yield *alam̄bik* which would be stressed ¹*alam̄bik* by the Romance stress rule.

Examples of lines without stress maxima in the second and eighth positions are:

And for the trouthe I demed in his
herte (F.Sq.563)

(15) And by his syde a swerd and a
bokele (A.Prol.112)

And on the daunce he gooth with
Canacee (F.Sq.277)

Examples of lines without stress maxima in the second and sixth positions are:

"Nabugadónosor was god," seyd(e)
he (B.Mk.3752)

(16) This Pandarus so desirous to serve
(TC.1.1058)

Whan that Aprille with his shoures
soote (A.Prol.17)¹⁹

(Notice that in the second line of (16) one might want to read *Pandarus* with initial stress, but this reading would spoil the internal rhyme *Pandarus* : *desirous*).²⁰

There is a second issue with respect to

¹⁹ Robert O. Evans, "Whan that Aprill(e)?," *Notes and Queries*, new series, IV (June, 1957), pp. 234-237, presents the results of an extensive manuscript comparison of the various readings for the first line of the Canterbury Tales. He points out that 8 mss. support the reading *Aprille* but that this is by no means conclusive. He says (p. 237), "As there is no conclusive textual evidence, I submit that there is a strong possibility, even a probability that Chaucer intended the initial lines of the Prologue to be read as a regular decasyllable, perhaps with a trochaic substitution in the first foot." Moreover in Northern dialects of English the word is pronounced [a'prail] (Cf. e.g., W. Grant and T. M. Dixon, *Manual of Modern Scots* [Cambridge, 1921] p. 62) pointing towards a historical antecedent with a tense i.

²⁰ Since *desirous* has a long ī (the simplex *desir* rhymes with *shire*, etc.), there are only two possible stress patterns, namely *desirous*¹ by the Romance rule alone, or *desirous*¹ by the prior operation of the vowel shortening rule in final syllable before no more than a single segment. Only the former is possible in this line

secondary and lower stress raised by the examples in (15) as well as the last two lines in (7), the last line in (9), the last two lines in (11) and the last line in (16). All of these lines contain a preposition or pronoun which has not been treated as a stress maximum. It is clear that there is a fundamental distinction between major categories like Noun, Adjective, Adverb and Verb on the one hand, and minor categories like conjunction, preposition, pronoun, article and certain verbs like *to be* on the other. It is also clear that major category words always bear stress. But the facts are not so clear when we deal with the minor categories. Thus the rhyme evidence of Chaucer suggests that certain words like *the* and *a* never bear stress, while certain other words like *to*, *so*, *by* and *he* do bear stress, at least in certain circumstances.²¹ Since we do

and this suggests that of the two stress options for *Pandarus*, the end stressed one is correct in view of the internal rhyme produced. (For a discussion of the stress options in proper nouns, see Halle and Keyser, forthcoming.)

²¹ Consider the three examples in the *Concordance* in which *to* occurs in rhyme. These are:

To do al that a man bilongeth to
(E.Mch.1459)

That on a tyme seyde his maister to
(G.Cy.1449)

And ful devoutly I prayed hym to (BD.771)
The most obvious fact about these three lines is that each ends with an inverted prepositional phrase. Thus the normal *belongeth to a man* has become *a man bilongeth to*, *to his maister* has become *bis maister to* and *to hym* has become *hym to*. It is perfectly possible, then, that *to*, normally without stress, received stress as a result of this special inversion. Indeed, a phenomenon precisely like this occurs in modern English in a special construction in which inversion is quite regular. Consider, first, the sentence *John ate up the apple*. In this sentence

the normal stress contour is something like *John² ate⁴ up³ the¹ apple*; that is, with *ate* receiving less stress than the adverbial *up* and *up* receiving less than the object noun *apple*. But notice that it is quite normal in English to invert the object noun phrase and the adverbial preposition to yield a sentence like *John ate the apple up*. Such an inversion also changes the stress con-

not at the moment see any way in which a definitive judgment can be made with respect to the relative stresses among words which belong to the minor categories, we have assumed that all of them bear the same degree of stress, whatever that may be.

Needless to say, further research may require that our views be modified. It is also true that contextual factors may provide a guide as to stress of minor category words. In all of the examples cited above, however, the context of the lines seems to be quite neutral with respect to the relevant minor category items. But it is worth mentioning here that a modification which demands that *to*, under normal stress, be given a greater linguistic stress than *and* or *the* (as in the last line in (9) above) does not render the lines in question exceptional; instead the lines need be only reclassified.

In the lines in (6) through (16) we have not found certain combinations of even position without stress maxima by virtue of linguistically determined weak or unstressed syllables being adjacent to one another. There are fourteen possible combinations of even positions 2 through 8 being occupied and/or unoccupied by

tour, which is now something like *John ate the apple up*. The important point here is that inversion has provided the adverbial preposition *up* with greater stress than it would have received without inversion. Without attempting to delineate the rules whereby stress is assigned in these two sentences in modern English, we draw attention to the fact that a rule which would provide a word with greater stress under inversion than it would normally receive is not without parallel. That *to* in each of its rhyming occurrences in Chaucer is the result of inversion is clear. That it receives stress as a result of inversion is plausible. Therefore, while we may take *to* to have a linguistically determined stress in Middle English, it is by no means clear that the evidence of rhyme forces us to do so under normal occurrences. The fact that prepositions were subject to the Great Vowel Shift lends further support to the assumption that *to* was stressed, since only stressed vowels were subject to Vowel Shift.

stress maxima. We have been able to find examples for eleven of those possible combinations. The combinations for which we have been unable to find examples are: (a) lines without stress maximum in positions 2, 4, 6 and 8; (b) lines without stress maxima in positions 2, 4 and 6; (c) lines without stress maxima in positions 2 and 4. The absence of (a) and (b) type lines is probably due to their rarity in the language. That is, in a space of ten syllables one is likely to find at least three stresses but rarely less. The absence of (c), however, is suggestive. It may be accidental. On the other hand, it may be that Chaucer consciously avoided lines in which the 2 and 4 positions were both unoccupied by stress maxima, perhaps because of the weak onset imparted to such lines. In this case the absence of all three types would be explained as violations of this added constraint. We shall merely suggest the possibility of incorporating some such stipulation into Principle 3.

Up to this point we have dealt with even positions occupied by unstressed or weakly stressed syllables rather than by stress maxima. There is, however, a second way in which even positions may be unoccupied by stress maxima; namely, when a major syntactic boundary intervenes between two metrical positions.²² We shall say that neutralization of stress takes place when two main stresses are separated by a major syntactic boundary, and we shall attempt to demonstrate that, like the so-called inverted first foot, neutralization is also a consequence of the

²²See Jespersen, for example, "Notes on Metre", *Linguistica* (Copenhagen, 1933), p. 255: "This leads us to another important principle: the effect of a pause: If I hear a syllable after a pause it is absolutely impossible for me to know whether it is meant by the speaker as a strong or as a weak syllable: I have nothing to compare it with till I hear what follows. And it is extremely difficult to say with any degree of certainty what is the reciprocal relation between two syllables separated by a not too short pause."

theory presented here while it gives rise to a host of examples which, in terms of the strict (or modified) iambic pentameter theory must be treated as deviations. We shall begin by citing examples of neutralization.

Examples of neutralization between the second and third positions are:

An example of neutralization between the fourth and fifth positions due to a preceding parenthetical phrase is:

- (18) Therfore, as ¹frend, ¹fullich in me
assure (TC.1.680)

Examples of neutralization between the sixth and seventh positions due, respectively, to the major break between an introductory adverbial clause and the following (elliptical) main clause and between two coordinate sentences are:

- (19) And whan you're prey is lost, woo
 and penaunces (TC.1.201)
 Love hath byset the wel; be of good
 cheere! (TC.1.879)

Now notice that whereas all of the above are treated as "acceptable complications of the norm" in the strict (or modified) view of iambic pentameter, they are perfectly regular in terms of the view presented here.

Thus Principle 3 asserts that a stress maximum may only occupy an even position within the verse, but that *not every even position need be so occupied*. And in all of the above this requirement is met. Consider, for example, the second line in (19):

Love hath byset the wel; be of good
cheere!

In this line the seventh position is occupied by a strongly stressed syllable. But our theory states not that odd positions may not be occupied by strongly stressed syllables, but only that odd positions may not be occupied by stress maxima. And in the above line we see that the strongly stressed syllable in the seventh position is not a stress maximum since it is not preceded by a syllable of lesser stress. The important point here, however, is that the reason that the seventh position is preceded by a position containing a syllable with equal (that is, neutralizing) stress is that there is a major syntactic boundary intervening between the two positions.

What Jespersen termed "pauses" (see fn. 22) are, in fact, major syntactic breaks within the line. More often than not they are represented orthographically by commas, semi-colons or colons. Further, it is a fact about the rules of English stress placement that they operate within but not across major syntactic breaks. Thus stress subordination will be found within major categories but not across major syntactic breaks. For this reason, it is only at "pauses" that one will find two equal stresses back to back, i.e. absence of stress subordination. Examples of major syntactic breaks are the breaks between an interjection and the following phrase as in (17), or between a phrase of direct quotation and the following direct quote as in (17), or between a parenthetical expression and the following clause as in (18), or between the clauses in a complex sentence such as, for example, the sentence we have just considered.²³

²³ Wimsatt and Beardsley (p. 596) comment on the line *Wondring upon the word, quaking for drede* (E.Cl.358) as follows: "Here is a very special relation of phrase to meter. The double inversion, at the start of the line and again after the caesura, gives the two participial verbs a special quiver. But this depends on the fact that there is a meter; the inversions otherwise would not be inversions."

In terms of the principles outlined above, this line is perfectly regular. Indeed, it is

A particularly striking case of neutralization due to lack of stress subordination across major syntactic breaks are items in a series. Consider, for example, the following well-known line in Chaucer:

- (20) As ¹ook, ¹firr(e), ¹birch, ¹asp(e), ¹alder,
 ¹holm, popler (A.Kn.2921)

which is reminiscent of the following line from Milton:

- (21) Rocks, caves, lakes, fens, bogs, dens
and shades of death.

In both of these lines the linguistic stresses in the even syllable positions are neutralized by the preceding and following stresses in the first six positions so that the first six positions contain no stress maxima. These lines are precisely like those in (6) and (16). Thus (20) like all of the preceding lines with internal neutralization is a perfectly regular though more complex consequence of the theory of prosody presented here.

Other examples which may be added to (20) are:

- (22) That hot, cold, hevy, lyght, moyst,
 and dreye (PF.380)
 Yong, fressh and strong in /
 desirous (F.Sq.23)

(The first of these is a headless line, for which see below.)

Examples of neutralization between the first and second positions which are, more

precisely like the second line in (19) above. It exhibits a strongly stressed syllable in the first position and neutralization between the sixth and seventh positions. In other words, this line is a normal iambic line. Moreover, both lines are distinguishable from unmetrical, i.e. exceptional lines, such as, for example, the sentence on pp. 187-8 above. The difference in complexity between the above line and neutral lines like those in (5) is reflected in the fact that this line is derived by the later alternatives of Principles 1 through 3.

often than not, due to initial interjections are:

- (23) Lo, he that leet hymselven so kon-
nyngē (TC.1.302)

 O, Salomon, wys and richest of
richesse (E.Mch.2242)

 O wombe! O bely! O stynking cod
(C.Pard.534)

There is, however, an environment in which neutralization may come about without the intervention of a syntactic boundary. We noted earlier (see fn. 2) that, unlike American English which exhibits subordination in noun phrases composed of an adjective + noun, contemporary British English shows level stress in these constructions. Assuming, then, the absence of stress subordination in adjective + noun phrases in Chaucer, one ought to expect to find lines in which either member of such constructions may occupy an even or an odd position in the line. (This is so since, given a sequence *old man* with level stress, namely ¹*old* ¹*man*, neither word may be a stress maximum.) And, indeed, we find this to be the case.

Examples of neutralization in noun phrases are:

- The Millere was a stout carl for the
nones (A.Prol.545)

A good Wif was ther of biside
Bathe (A.Prol.445)

(24) Allas! a foul thyng is it, by my
feith (C.Pard. 524)

A wys womman wol bisye hire
evere in oon (D.WB.209)

Lines such as those in (24) are quite common in Chaucer. Further, making the natural assumption that level stress was characteristic of British English from Chaucer to the present, it ought to be the case that such lines occur throughout

English poetry and this, too, seems to be true.²⁴

We have seen that all of the lines discussed in (5) through (24) are regular lines in terms of our principles. We have also seen that whereas (5) contains the most neutral actualization of the metrical pattern, (6) through (24) exhibit more complex actualizations of the pattern. These are lines characterized by even positions which are not actualized by stress maxima, either because of neutralization or because of the adjacency of syllables with linguistically determined weak stress. The number of metrical lines of this type is extremely large. We have already seen examples of many of them above. A particularly good example of the interaction of these phenomena is the following line which from the point of view of the strict (or modified) iambic pentameter theory, would be wildly deviant:

- (25) "Knowe ich hire aught? For my
¹ love, telle me this. (TC.1.864)

This example as well as those in (6) through (24) should be sufficient to illustrate the manner in which a variety of complex lines may result from the alternatives provided by our principles.

METRICAL POSITIONS

Up to now we have focussed our attention on the character of the stress maxima in Chaucer's iambic pentameter line. We have in general chosen as our examples lines in which there is a one to one correspondence between syllables and positions. But there are other mappings possible. Thus Principle 1 states that the iambic pentameter line consists of ten positions, and Principle 2 states

²⁴Several examples of lines from later poets are cited in Jespersen's "Notes on Meter" which indicate level stress. To quote just one from Shakespeare: *The course of true love never did run smooth* (Mids. I.1.134). Here, level stress in *true love* renders the line regular.

that a position, normally occupied by a single syllable, may, under certain conditions, be left vacant or, under yet different conditions, be occupied by more than a single syllable. Let us turn to the condition under which a position may be occupied by no syllable.

HEADLESS LINE

A zero syllable may occur only in the first position in a line. Such a line is called a headless line. An example of such a line is:

- (26) Twenty bookes clad in blak or reed
 (A.Prol.294)

In this line the first phonetically realized syllable is, in fact, in the second metrical position. The first position has been realized by zero. Notice also that in this line the second metrical position is realized by a syllable which does not constitute a stress maximum since it is not surrounded by syllables of lesser stress.

An example of a headless line with the second position occupied by a weakly stressed syllable in contrast to (26) above is:

- (27) Of that word took hede Troilus
 (TC.1.820)

An often cited line of Chaucer which is relevant here is the well-known Parson's adage:

- (28) That if gold ruste, what shal iren
 do? (A.Prol.500)

A possible reading is to treat *ruste* as dissyllabic. The stress contour of *gold ruste* would be *gold² ruste¹* and the line would be a straightforward example of the Chaucerian iambic without a stress maximum in the second position. But this violates the sense of the line and the clear contrast implied between *gold* and *iren*. Thus, without dealing here with the mechanism whereby emphatic stress may

be assigned to any word in a line,²⁵ we shall simply assert that *gold¹ rust²* is what the line requires. We shall read (28) as follows:

That if *gold* *rust(e)*, what shal *iren*
do?

That is, we take it as a headless line without a stress maximum in the second position. (We assume *ruste* to be monosyllabic by operation of the final -e dropping rule.)

DISSYLLABIC POSITIONS: CONDITION 1

No discussion of the Chaucerian line can be complete without a discussion of the metrical status of several lines which are, in traditional terms, viewed as undergoing various processes of syllable reduction such as elision, apocope, aphesis, syncope, etc. What is essentially at issue in dealing with these lines is the question of what constitutes a metrical position for Chaucer. To begin with, notice that the strict iambic pentameter view described earlier is quite explicit about this question. It states that a metrical position must be occupied by a single syllable. As a consequence, when faced with lines like:

- (29) With a thredbare cope, as is a povre
scoler (A.Prol.260)
And leyde it above upon the
myddeward (G.CY.1190)

it is necessary to recognize them as hypermetrical lines since a mapping of unstressed syllables and stressed syllables into the iambic foot results in an extra syllable being left over. In the first line in (29) the strongly stressed syllable position of the iamb is actualized by the first element of *thredbare*. Thus the

²⁵ See, for example, N. Chomsky, "A Transformational Approach to Syntax," *The Structure of Language*, ed. Fodor, and Katz (Englewood Cliffs, 1964), pp. 227 ff.

weakly stressed position of the iamb must be supposed to consist of two syllables, namely *with a*. But because this violates the canon of one position, one syllable, scholars have either treated the line as irregular or, as did Ten Brink, emended it to read *with thredbare cope*.

The important point to keep in mind, however, is that the one position, one syllable doctrine is an hypothesis and no reasons are given why it should be honored. There is, however, a suspicion that the reason for its widespread acceptance is due to a prior assumption. The effect of this doctrine is essentially to allow there to be a one to one mapping between the theoretical entities proposed and the phonological entities which actualize them. But there is no reason why there should be such a relationship between observables and the theoretical constructs which explain their behavior. In fact, in the spoken language the assumption of such a relationship is clearly false.²⁶ One consequence of assuming a one to one relationship between constructs and their phonetic realizations is to confuse two issues which ought to be kept clearly apart. The first issue is what constitutes the metrical structure of a given line. The second issue is how a given line should be performed. Thus when Paull Baum (*Chaucer's Verse* [Durham, N. C.] p. 65) comments on a line like:

- (30) Wyd was his parishe and houses
fer asonder (A.Prol.491)

asking whether it is better to "squeeze *parishe* down to one syllable than to welcome the anapest," he is confusing

²⁶ A similar assumption about the relationship between the sounds of language, the phones, and the theoretical entities to which they correspond, the phonemes, has been assumed by many linguists. For a discussion see N. Chomsky, "Current Issues in Linguistic Theory," in Fodor and Katz, pp. 93 ff. Note also the statement by Bridges above "whether . . . [syllables] . . . are to be considered as . . . elideable or not . . ." (see fn. 7).

the issues. The question of squeezing *parisshe* down is a question of performance. We shall say nothing here about how this and similar lines are to be performed. Rather we shall consider only the first issue, namely whether there is some systematic way of determining what syllables may occupy a single position from a metrical point of view.²⁷

We have already seen that the realization of a position as zero is possible only when that position is the initial position of a verse. We have also asserted that any position may be occupied by a single syllable. Using the symbol $\overbrace{}$ to mark the domain of a position, we see that the third line of (5) has each of its metrical positions actualized by a single syllable, thus:

- (31) $\overbrace{Ye} \overbrace{shal} \overbrace{be} \overbrace{deed}, \overbrace{by} \overbrace{myghty} \overbrace{Mars}$
the rede! (A.KN.1747)²⁸

²⁷ Notice, then, that it is no accident that the processes which scholars have assumed to make unruly lines regular have been phonetic processes, such as syncope, apocope, elision and the like. The reason for this is to preserve a one to one mapping between the phonetic line and the metrical structure, and this, as we have suggested, results in confusing the performance of a line with the structure of the line. In what follows we shall attempt to describe the conditions whereby syllables may participate in metrical positions.

We shall try to demonstrate that certain principles were used by Chaucer which determined the constituency of metrical positions in much the same way that analogous principles determined metrical constituency in classical poetry. The phonological and morphological constraints will be quite different, of course, but the conditions will function similarly. In precisely the same fashion as a weak position in a classical dactyl can be occupied by one or two syllables ($- = \sim \sim$), so a metrical position in Chaucer's pentameter can be occupied by one or two syllables. This, however, does not mean that in Chaucer's recitation a two syllable position was pronounced as a monosyllable anymore than it means that two syllable positions in classical verse were pronounced as monosyllables.

²⁸ In this line we have marked the domain of each position. In general this will not be necessary. In the lines which follow we shall only

But now consider:

- (32) And bāthed / every veýne in swich
licour (A.Prol.5)
O, Salomon, wýs and / richest of
richesse (E.Mch.2242)

Here if we could treat the last two syllables of *every* and the last two syllables of *Salomon* as occupying a single position, these lines would be quite regular. Otherwise they would have to be treated as exceptions since they would exhibit stress maxima in odd positions. Notice that in these lines the relevant sequences are *-ery* and *-amon*; that is, an unstressed vowel followed by an unstressed syllable.

Other lines which would be quite regular if there were a principled way of assigning such sequences to a single position are well-known. Among them are:

- Of Éngelond to Caunterbury they
wende (A.Prol.16)
(33) To Caunterbury with ful devout
corage (A.Prol.22)
A likerous mouth moste han a
likerous tayl (D.WB.466)

If the lines could be treated with *-bury* and *-erous* constituting single positions then again the lines would be restored to regularity.

We mentioned earlier that there were certain conditions according to which a sequence of syllables was assigned to a single metrical position. As a first approximation of one of these conditions, we formulate the following:

Condition 1

Within the same word an unstressed vowel followed by a liquid or nasal

mark the domain of those positions which, by virtue of the conditions under discussion, are occupied by more than a single syllable. All positions occupied by a single syllable will be left unmarked.

followed by another unstressed vowel may constitute a single metrical position.

By *Condition 1* all of the examples in (32) and (33) are rendered regular. Thus, *-ery*, *-amon*, *-ury* and *-erous* constitute single metrical positions by *Condition 1*. But now consider the following set of examples:

And specially from every shires
ende (A.Prol.15)

(34) Of thy religioun and of thy bileeve
(G.SN.427)

O hateful harm! condicion of
poverte (B.ML.99)

In these lines we have in words like *specially*, *religioun* and *condicion* sequences of unstressed vowels but without an intervening liquid or nasal; thus *-io-* and *-ia-*. If these sequences could be assigned to a single position, (in the fashion indicated in (34) above), then regularity would be restored to these lines as well. We can do this by making a simple adjustment to *Condition 1*. Where it now specifies that two unstressed vowels must be separated by an intervening liquid or nasal, we simply stipulate that two unstressed vowels may but need not be separated by an intervening liquid or nasal. Thus the condition now appears as:

Condition 1¹

Within the same word an unstressed vowel followed by an optional liquid or nasal followed by another unstressed vowel may constitute a single metrical position.

There is, however, a strong similarity between *Condition 1¹* as now stated and the traditional concept of vowel elision. Since the latter deals with final vowels in words which are followed by vowel initial words, all that needs be done to *Condition 1¹* is to drop the requirement

that it may only apply within the same word and sequences like *many a*, *glori(e)* and, etc., may be analyzed as *many a* and *glori(e)* and, etc. Since elision may also occur before an *b-* initial word, a sequence like *contrari(e)* *hire* would be analyzed as *contrari(e)* *hire*. Indeed, that *Condition 1¹* should be so altered is suggested by the following lines which require analyses like the above:

And many a breem and many a
luce in stuwe (A.Prol.350)

(35) With muchel glori(e) and greet
solempnytee (A.Kn.870)
To eschue, and by hire con-
trari(e) hire oppresse (G.SN.4)²⁹

Notice that by extending *Condition 1¹* to operate across word boundary, a line like the following is rendered perfectly regular:

Of hire comynge and eek of his also
(TC.3.1675)

In this line a final *-e* on *comynge* is necessary in order to achieve penultimate stress by the Romance stress rule while the fact that the final *-e* is followed by a vowel initial word insures that *-e* and will be assigned to a single position by *Condition 1^{1,30}*.

In a line like:

And setten tyme of metyng eft
yfeere (TC.3.1712)

²⁹In a count of the various elisions of final *-e* before a vowel or *b-* initial word in the prologue to the *Canterbury Tales*, Alexander Ellis, in his *Early English Pronunciation*, V (London, 1869-89), pp. 341 ff., lists 315 as the total number of elisions of final *-e* before a following vowel initial word and 147 as the total number of final *-e* elisions before a following *b-* initial word. Thus it seems that *Condition 1* should be altered so as to apply across word boundaries.

³⁰For discussion of *also* see fn. 32.

the initial stress on *metyng* indicates that the final *-e* has been dropped prior to the operation of the Romance stress rule. Thus, in this line, there is no final *-e* which can occupy a single position with *eft*. Notice that *tyme of* is ambiguous since it may represent *tym(e) of* with the prior operation of the rule which drops final *-e* or else *tyme of* without the prior operation of that rule with *-e of* assigned to a single position by Condition 1¹.

Condition 1¹ is almost in final form. There are, however, certain lines which indicate that it must be modified still more. Consider the sequence *to eschue* in the last line of (35). *Condition 1¹* requires that an unstressed vowel be followed by another unstressed vowel. But we have already seen earlier that *to* may indeed bear a certain degree of stress. Thus, it is possible that some condition other than lack of stress is sufficient for the assignment of more than one syllable to a single position. Consider, for example, the following lines:

- (36) And where they engendred and of
 what humour (A.Prol.421)
 To eschue, and by hire contra-
 ri(e) hire oppresse (G.SN.4)

In the first line we should like our condition to treat *they engendred* as *they engendred*, and *to eschue* as *to eschue*. As *Condition 1¹* now stands it will not provide these analyses since *they* and, very likely, *to* have some stress. But notice that in each case the sequences to be analyzed do not involve stress maxima.

Thus, if we were to drop the requirement in *Condition 1¹* that both relevant vowels must be unstressed, then the sequences discussed above will automatically be assigned to a single position. We shall reformulate *Condition 1¹*, therefore, as:

Condition 1

Two vowels may constitute a single

position provided that they adjoin, or are separated by a liquid or nasal or by a word boundary which may be followed by *b-* and provided that at least one of the vowels is a weakly stressed or unstressed vowel.

As now stated, *Condition 1* will not only handle the sequences discussed in (32) through (35), but it will also account for those in (36). In particular, *they end- and to es-* are single positions by this condition.³¹ Note also that neither position is occupied by a stress maximum since neither syllable of the dissyllabic positions is surrounded by syllables of lesser stress.

Since *Condition 1* allows an optional sonorant, word boundary and *b-* to intervene between two vowels, the sequence *-er his* constitutes a single position, neither syllable of which is a stress maximum, in the following line:

- (37) Withoute / bake met(e) was
never / his hous (A.Prol.343)

Up to now the examples have dealt with *Condition 1* producing dissyllabic positions composed of syllables which were not stress maxima. It is equally possible, of course, to have such dissyllabic positions occupied by stress maxima. That is to say, there are lines in Chaucer which illustrate the operation of *Condition 1* to yield dissyllabic even positions occupied by a stress maximum. Consider, for example, the following:

- And his comyngē unwist is to every
wight (TC.3.912)

- And Phyllis also for Demophoun
(BD.727)

- (38) Trille this pyn and he wol vanysshe
anon (F.Sq.328)
The cause y-told of hir comyng,

³¹The similarity between *Condition 1* and the classical conditions of elision, echthlipsis and synaloepha is obvious.

the olde (TC.4.141)
Wyd was his / parisse and houses
fer asonder (A.Prol.491)

In the first line of (38) to *ev-* constitutes a single position by *Condition 1* and, since *ev-* contains greater stress than the surrounding syllables, it constitutes a stress maximum. Thus, the eighth position is both dissyllabic and occupied by a stress maximum. The line also requires penultimate stress on *comyng* which can only be achieved if the final *-e* has not been dropped. But since *-e um-* constitutes a single position by *Condition 1* which does not contain a stress maximum, this causes no difficulty. Finally, the sequence *-ery* in *every* is also a single position by *Condition 1*, which is not occupied by a stress maximum so that the first line is quite regularly iambic.

In the second line in (38) *Demophoun*, rhyming with *Jasoun*, bears final stress. But *Demo-* constitutes a single position by *Condition 1* not occupied by a stress maximum.³² The third line in (38) contains a zero first position and is, therefore, headless. But notice that by *Condition 1* *vanyssh(e)* constitutes a single position. Moreover, the position contains a stress maximum. (Whether the final *-e* was dropped by the final *-e* dropping rule or whether it is to be treated as a single position with the following *a-* does not matter here.)

The fourth line in (38) requires a final *-e* in *comyngē* in order to yield the appropriate penultimate stress in ¹*comyngē* which will preserve the iambic char-

³² There is some evidence which suggests that *also* might bear a 2 1 stress pattern in Middle English. Without attempting to resolve the issue here, note that even assuming a 2 1 stress pattern the line is regular since *Phyllis* may also constitute a single position (by Condition 1) occupied by a stress maximum. Thus under the assumption of 2 1 stress in *also*, the line is scanned as:

And Phyllis also / for Demophoun

acter of the line. But notice that the *-e* is not subject to *Condition 1*. However, the sequence *the olde* is a single position and *olde* is a stress maximum.

The fifth line in (38) contains the word *parisse* which may be treated as a single position by *Condition 1* and the first syllable of which constitutes a stress maximum, regardless of whether the final *-e* has been dropped or not since a vowel initial word follows.

One final example of a line which contains a dissyllabic position should suffice. Consider the last line in (36) above:

To eschue, and by hire contrari(e)
hire oppresse

We have already seen that *to es-* is a single position by *Condition 1*. But now consider *contrarie hire*. We must first assume that the final *-e* has dropped in order to yield initial stress on *contrari* and maintain the iambic character of the line. But the sequence *-i hire* may also constitute a single metrical position by *Condition 1*. Finally, since *hire* is surrounded by completely unstressed syllables, and since it very likely bears some degree of stress, it is probably a stress maximum. Thus *-i hire* constitutes a single metrical position by *Condition 1* and is occupied by a stress maximum.

DISSYLLABIC POSITIONS: CONDITION 2

There is one more condition for position assignment. The evidence for this condition is contained in the following lines:

- "But we were lever(e) than al' this
 toun," quod he (A.Mil.3751)
 Turne over the leef and chese
 another tale (A.Mil.3177)

(39) The cook yscalded, for al his longe
 ladel (A.Kn.2020)

- Thow hast translated the Romauns
of the Rose (LGW.225)
In many places were nyghtyngales
(RR.657)

In these lines an unstressed or weakly stressed monosyllabic word is preceded by an unstressed syllable; in particular, *-er*, the past tense *-ed* and the plural *-es*. We can set up a second condition for position assignment which would say something like the following:

Condition 2¹

An unstressed or weakly stressed monosyllabic word may constitute a single position with a preceding unstressed or weakly stressed syllable.

So stated, *Condition 2¹* accounts for *-er*, *than*, *-er the*, *-ed for*, *-ed the*, *-es of* and *-es were* as constituting a single position. Moreover, all the positions are without stress maxima. Without *Condition 2¹* the lines in (39) would have to be treated as irregular. But there are other lines which *Condition 2¹* also renders regular. Thus the following illustrate the assignment of the verbal endings *-eth* and *-est* to a single metrical position along with the following weakly stressed monosyllabic word:

- And Emely(e) hym loveth so tendrely (A.Kn.3103)
(40) No man hateth his flessh, but in his lyf (E.Mch.1386)
If thou lovest thyself, thou
lovest thy wyf (E.Mch.1385)

In these lines *-eth so*, *-eth his* and *-est thy* occupy single metrical positions by *Condition 2¹* which do not contain stress maxima.

Condition 2¹ now specifies that any unstressed or weakly stressed monosyllabic word may constitute a single position with a preceding unstressed or weakly

stressed syllable. But notice that the preceding syllable may in fact be a monosyllabic word and not necessarily an unstressed syllable which is part of a word. Thus *Condition 2¹* not only accounts for the examples in (39) and (40) but it also accounts for the following:

- Of a solempn(e) and a greet frater-nitee (A.Prol.364)
As wel of this as of other thynges moore (D.WB.584)
For hym was lever(e) have at his beddes head (A.Prol.293)³³
(41) And also war him of a significavit (A.Prol.662)
And saugh his visag(e) al in an other kynde (A.Kn.1401)
I ne saugh this yeer so myri(e) a compaignye (A.Prol.764)
And is also fair and fresh of flour (R.R.4333)
This is al and som, he heeld virginitee (D.WB.91)

The sequences *of a*, *as of*, *at his*, *of a*, *in an*, *I ne*, *And is* and *This is* all constitute single metrical positions by *Condition 2¹* which are not occupied by a stress maximum. Thus all of the lines in (41), as well as those in (39) and (40) are regular.

Let us now return to the lines in (29). *Condition 2¹* will account for the first of these lines since it may assign *with a* to a single metrical position which is not occupied by a stress maximum. Thus:

With a thredbare cope as is a povr(e) scoler

is quite regular. (The adjective *povr(e)*)

³³This reading seems preferable to one which would treat *lever(e) have* in this fashion.

is monosyllabic by operation of the final -e dropping rule.)

But now consider the second line in (29). As it now stands *Condition 2¹* will not apply to *leyde it* since *Condition 2¹* requires that the syllable preceding the weakly stressed word, in this case *it*, be unstressed or weakly stressed. But suppose we were to drop that requirement. Then *leyde it* would constitute a single position and, since *leyde* is a stress maximum, the position would be actualized by a stress maximum. Since this alteration in *Condition 2¹* does no violence to the examples discussed up to now, we shall adopt this modification. *Condition 2¹* now reads:

Condition 2

An unstressed or weakly stressed monosyllabic word may constitute a single metrical position with a preceding stressed or unstressed syllable.

By *Condition 2* the second line in (29) is treated as:

And $\overset{1}{\text{leyde}}$ $\overset{2}{\text{it}}$ $\overset{3}{\text{above}}$ upon the
 $\overset{1}{\text{myd}}\overset{2}{\text{deward}}$.

Thus we see that *Condition 2*, like *Condition 1*, may operate to produce polysyllabic positions which may but need not be occupied by stress maxima.

Two lines which appear in every discussion of hypermetrical lines in Chaucer bear some comment. These are:

- (42) $\overset{1}{\text{Pekke}}$ $\overset{2}{\text{hem}}$ $\overset{3}{\text{up}}$, $\overset{1}{\text{right}}$ as they $\overset{2}{\text{growe}}$,
and $\overset{1}{\text{ete}}$ $\overset{2}{\text{hym}}$ in (B.NP.4157)
 $\overset{1}{\text{Seven(e)}}$ $\overset{2}{\text{hennes}}$ for to doon al his
 $\overset{1}{\text{pleasaunce}}$ (B.NP.4056)

In the first line the phrase *Pekke hem up* is the relevant phrase. Note, first, that *up* very likely bears greater stress than the preceding words just as it does in the modern English equivalent *pick them up*. By *Condition 2* *hem* may be assigned as a single metrical position with the pre-

ceding *pekke* just as was done with *leyde it* in (29) above. But what of the stress maxima assignment? A major syntactic break exists between *up* and the following adverb *right*. Thus neutralization occurs and the *up* is not a stress maximum. But notice that *Pekke* also is not a stress maximum since it is not surrounded by syllables of lesser stress. Thus the line exhibits an interesting example of a polysyllabic first metrical position, occupied by *Pekke hem*, and neutralization between the second and third positions. The line is perfectly regular.

Now let us consider the second line in (42). The relevant phrase is *seven(e) hennes*. By *Condition 1* the sequence -en *henn-* may be assigned as a single metrical position since the two vowels are separated by a sonorant, a word boundary and an *h-*. Moreover, *henn-* is a stress maximum. Thus the second position is occupied by a stress maximum and the line is regularly iambic. (We assume prior operation of the final -e dropping rule in *sevene*.)

One final line is worth noting. The single example of the proper name *Attilla* occurs in the line:

- (43) Looke, Attilla, the grete conquerour
(C.Pard.579)

If we suppose a single -*l*-, then the Romance stress rule provides initial stress as $\overset{1}{\text{Attil(l)a}}$. In this case the line would exhibit neutralization between the first and second positions and is quite regular. If, on the other hand, the *l* is geminate, then the Romance stress rule provides penultimate stress as $\overset{1}{\text{Attilla}}$. In this case *Condition 1* may not assign -*illa* to a single metrical position since it requires that there be a single intervening sonorant. However, *Condition 2* will assign -*a* to a single metrical position and the position will not be occupied by a stress maximum. By this latter interpretation,

the line is *headless*. Since we have no way of judging whether *Attila* contains *-l-* or *-ll-*, we cannot choose. But both alternatives are regular within the framework of our principles.³⁴

PHONETIC CHARACTER OF THE CONDITIONS

At this point the reader will have noticed that *Conditions 1* and *2*, while explicitly non-phonetic, nonetheless bear a strong resemblance to certain optional phonetic rules of contemporary spoken English. Thus the sequence *I wol* which constitutes a single position by *Condition 2* may well have been pronounced as *I'll* by a contemporary reader of Chaucer. Similarly, the sequence *-ery* in *every* which constitutes a single metrical position by *Condition 1* is quite normally pronounced as a dissyllable in contemporary English. Indeed, in every example in the *Concordance* with the word *every* it is necessary to invoke *Condition 1*. On the other hand, there are occurrences of forms, such as *Canterbury*, in which the relevant sequence is sometimes a single position and sometimes not. Thus we have the following lines:

- (44) Of Éngelond to Caunterbury they
wende (A.Prol.16)
That toward Caunterbury wolden
ryde (A.Prol.27)

Examples such as *every* and *-bury* indicate that it would be wrong to suppose that *Condition 1* and *Condition 2* had no phonetic counterparts in Middle English. On the other hand, examples such as *parisse*, *vanisshe*, *Demophoun* and *Phyl-*

³⁴A great many of our examples have been drawn from commentaries by many scholars on Chaucerian prosody. The commentaries that we have examined include A. H. Licklider's *Chapters on the Metric of the Chaucerian Tradition* (Baltimore, 1910), Baum's *Chaucer's Verse* (Durham, N. C., 1961), as well as the studies by Ten Brink and A. J. Ellis cited above.

lis (see (38) above) indicate that it would be too strong to suppose that *Condition 1* and *Condition 2* were, in fact, phonetic conditions.³⁵ We shall not attempt to indicate which of the metrical options specified by our conditions were also phonetic options in Middle English.

Notice that we keep quite distinct cases of syncope in Middle English which, as indicated by the spelling, entail bona fide phonetic variants. Thus we suppose the phonetic doublet *comprende* beside *comprehende* in view of the following lines and their spellings:

- (45) As muche joie as herte may com-
prise (TC.3.1687)
Than they kan in hir lewednesse
comprehende (F.Sq.223)

Similarly, the following lines require doublets:

- (46) The god of love, a benedictee
(A.Kn.1785)
What! lyveth nat thy lady, ben-
diste? (TC.1.780)

Further, the well-known *bileeve : bleeve* and *coroune : croune* doublets clearly indicate that we must suppose phonetic doublets in dealing with lines containing these words.³⁶

EXCEPTIONS

We mentioned earlier that the fundamental distinction which a theory of prosody must make is that between

³⁵Licklider (p. 56) introduces a principle of "Resolution after development of liquid or nasal" to account for the lines in which these words occur. We have seen that *Condition 1* will account for these lines and a good many other besides. It is interesting to note, however, that Licklider does not treat the reduction in these words as phonetic. Thus, he is setting up conditions for position occupancy implicitly. He says of these forms, "Whether the atonic vowel ever completely disappears or not is hard to determine; it probably remains as a very light touch" (p. 56).

³⁶For further discussion of such doublets, see Licklider, pp. 71 ff.

metrical and unmetrical lines. The theory which we have discussed does this. Thus in terms of our theory the preceding sentence is unmetrical. However, one need not construct hypothetical exceptions. There are lines in Chaucer which, in terms of our theory, must be deemed unmetrical. For example, consider the following lines:

- (47) Ful weel she soong the service
 dyvyne (A.Prol.122)
 Arsenyk, sal armónyak and brim-
 stoon (G.CY.798)

In the first line of (47) the penultimate syllable of *service* is stressed by the Romance stress rule. But observe that with this stress the syllable becomes a stress maximum which occupies the seventh position in violation of Principle 3. The alternative of supposing that to the underlying form *service* the final -e dropping rule and the vowel shortening rule have applied to yield *service(e)* which is stressed *servic(e)* by the Romance stress rule does not help. This alternative requires that the line be read as headless, but in this case, too, the first syllable of *servic(e)* is a stress maximum occupying the seventh position in violation of Principle 3.

In the second line in (47) we find the compound noun *brimstoon*. Its stress assignment, in accordance with English stress subordination in such units, requires that we suppose a stress maximum in the ninth position in the line. Again this is a violation of Principle 3.

What these lines make clear is that there is a sharp line drawn, in terms of our theory, between metrical and unmetrical lines. (Indeed, the very concept of an exception to a theory has meaning only in terms of the theory itself.) From our point of view the lines in (47) are unmetrical. From some other point of

view they may be perfectly regular. The crucial question, of course, is the number of exceptions which a theory must presuppose. The inadequacy of the strict iambic theory is that it must suppose a significant portion of lines in Chaucer to be unmetrical. Indeed, it is precisely for this reason that the theory is modified in order to avoid this intolerable supposition. But the modification assumes the form of a list of "permissible deviations" which fails to capture the features that these deviations have in common. For this reason we have rejected the modified iambic pentameter theory in favor of that presented here. But now we see that this theory also entails exceptions. The question is, whether the exceptions entailed comprise a significant portion of the lines in Chaucer. The answer is that they do not. Thus a random selection of one thousand lines in Chaucer yielded less than 1.0% exceptional lines. Such a percentage of exceptional lines seems tolerable in view of the exigencies of manuscript transmission, scribal error and, finally, the possibility of poetic oversight, though, in principle, the latter seems to us a last recourse since it fails to do justice to the craftsmanship of a great poet.³⁷

³⁷The difficulty that recourse to this principle can have is illustrated by Yvor Winters' comment on the Keats' line *Bright star, would I were steadfast as thou art*: ". . . however, in this line the stressing of *would* would result in an inverted foot in the second position, and although inversion is possible in this position, it is difficult and generally unlikely, so that we naturally expect the stress to fall on *I*, which likewise is the natural recipient of the rhetorical stress . . . but if, as in this line, the comparison is completed, an actual stress should fall on the second pronoun; but since this pronoun also is coupled with a verb which is mechanically its equal and on the basis of its inherent nature could as well take the accent, and since the foot ends the line, and a rhymed line at that, the accent must fall on *art*. *This blunder by Keats could scarcely have occurred as a result of his reading poetry in a dramatic fashion . . . and had he read the line dramatically he would have noticed the error*" (emphasis added). "The Audible Reading of Poetry,"

It would exceed the scope of this article and also be premature, to attempt to show how various poets throughout the history of English literature have made use of the set of principles outlined above. It is our contention, however, that these principles, first adhered to by Chaucer, have provided the system of prosody for a major portion of English poets. One of the things which a study of later poets would show is the way that these principles have been modified by a given poet. Thus one might expect to find that some poet used the same schema but allowed a stress maximum in, say, the ninth position, or else modified Principle 2 to exclude an initial zero position. Indeed, one would not be surprised to find a poet experimenting with several such modifications of the system.

CHAUCER'S ART POETICAL

We have seen that the language of Chaucer provides him with several stress doublets and that he utilized these for poetic effects (see p. 15 above). Additional examples of stress doublets in Chaucer are *divers* beside *diverse*, *creatōur* beside *creatour*, *secrēe* beside *secrēe*. Chaucer makes use of these variants within the same line, balancing one variant, within the iambic pattern, against the other. Examples in which he manipulates the stressed variants within the line are:

In divers art and in divers(e)
figures (D.Fri.1486)

reprinted in the Gross volume (see fn. 7), p. 139.

But notice that the "unlikely inversion" which Winters rules out is precisely what the line requires since it allows for the natural comparison between *would* and *art*. Notice, also, that a stress on *would* is not difficult since it is neutralized by the syntactic boundary that separates it from immediately preceding main stress on *star*. Thus the line may be scanned as: *Bright star, would I were steadfast as thou art* with neutralization between the first, second and third positions and with a stress maximum, the only one, occurring in the sixth position.

The créatour of éverý creature
(G.SN.49)

Is of the sécrēe of secrees, pardee
(G.CY.1447)

O, Salomon, wýs and ríchest of
richesse (E.Mch.2242)

Examples in which he makes use of stress for purposes of internal rhyme are also found:

Thanne spák Alcéste, the wor-
(49) thyéste queene (LGW.G.317)

This Pandarus tho desirous to serve
(TC.1.1058)

In these examples the rhyming syllables within the line all bear 1 stress regularly according to the rules of Middle English accentuation. (Notice, by the way, that the first line in (49) is not hypermetrical since *Condition 1* and Principle 3 allow us to treat *-yest* as a single position occupied by a stress maximum. Alternately the line may exhibit a dissyllabic fifth position without a stress maximum.)

An example of the fashion in which Chaucer manipulates stress, syntax and phonology is contained in the following passage:

Men reden nat that folk han gretter
wit

Than they that han be most with
love ynome;

(50) And strengest folk ben therwith
overcome,

The worthiest and grettest of de-
gree:

This was, and is, and yet men shal it
see (TC.1.241-5)

In the first line the comparative *gretter* is followed in the next three lines by superlative forms, namely *most*, *strengest*, *worthiest* and *grettest*. The first two are clearly stressed *most* and *strengest*. But, as is often the case in Chaucer when he uses the same word or syntactic form in

adjacent lines, he makes use of stress options to vary and make more interesting the repetitions. Thus the fourth line in (50) may be read as:

The worthieste and grettest of degree

with Chaucer opposing stress variants in the same line as in (48) above. Finally, notice the repetition of the consonant features of the superlative ending *-este* in the final line of (50), thus:

This was, and is, and yet men shal it see.

and the obvious play between *worthiest* in the fourth line and *was and is* in the fifth line.

(Another example of his making use of stressed variants for purposes of variety and interest is contained in the passage (4) from the *Pardonner's Tale* cited earlier.)

Finally, consider the following stanza from Chaucer's *Complaint of Venus* in which he varies syntax and stress not only for interest but also as a subtle reinforcement of sense. The stanza appears in Robinson's edition of Chaucer in the following fashion:

Now certis, Love, hit is right covenable

That men ful dere aby thy nobil thing

As wake abedde, and fasten at the table,

(51) Wepynge to laughe, and singe in compleynyng;

And doun to caste visage and lokyng,

Often to chaunge hewe and contenaunce

Pleyne in slepyng, and dremen at the daunce,

Al the revers of any glad felyng.

We propose first to read the seventh line as:

Pleye in slepyng, and dremen at the daunce.³⁸

Now, however, we notice a certain symmetry developing in the stanza. Thus in the same way that the seventh line begins with an infinitive followed by a prepositional phrase consisting of a preposition and a gerund, so, too, we find the fourth line ending in just that fashion, namely *singe in compleynyng*. Now we may ask whether the symmetry goes further. Thus the first part of the fourth line begins with a participial adjective *wepynge* followed by the infinitive *to laughe*. But when we look at the end of

³⁸This proposal is, in fact, merely a restoration of the original manuscript readings. The line as restored appears, for example, in *A One-Text Print of Chaucer's Minor Poems*, ed. by Frederick J. Furnivall (Chaucer Society, First Series 24, 61, London, 1868-1880). In 1888 the line is printed in this form in *Chaucer, the Minor Poems*, ed. by W. W. Skeat (Oxford, Clarendon Press, 1888). In 1890 M. Piaget in his article "Oton de Granson et ses Poesies," *Romania*, XIX (1890, p. 414), prints the original Granson ballads from which the *Compleynge of Venus* was freely translated by Chaucer. He prints Chaucer's rendition alongside the French following ". . . l'excellente edition du Rev. W. Skeat . . ." In 1892, however, Paget Toynbee in his *Specimens of Old French Poetry (IX-XV centuries)* (Oxford, Clarendon Press, 1892) included the Granson ballads, and in a footnote on p. 492 he comments, "Plaindre en dormant, the reading, 'Pleye in sleping,' in the printed editions of Chaucer's version of this line, is an evident error for 'Pleyne in sleping,' the mark over the y in MS. (ŷ = yn) having been disregarded."

Toynbee's suggestion was duly noted by Skeat who, in his *Complete Works of Geoffrey Chaucer, Romaunt of the Rose and Minor Poems* (Oxford, Clarendon Press, 1894) alters his earlier reading and comments in a footnote on p. 561, "The French text shows that we must read *Pleyne*, not *Pleye*; besides, it makes better sense. This correction is due to Mr. Paget Toynbee; see his *Specimens of Old French*, p. 492."

Evidently the Toynbee suggestion has been followed ever since. Indeed, Robinson in his edition of Chaucer (p. 1038) lists the manuscript authorities, of which there are nine, and observes that all manuscripts (save one in which the first 44 lines are missing) contain the reading *pleye in slepyng*. Nevertheless, he reads *Pleyne in slepyng* on the basis of the French *Plaindre*.

the seventh line we find *dremen at the daunce*; the symmetry is thus broken.

If, however, we look closely at the manuscript readings we find that one of them, MS.Arch.Seld.B.24, does, indeed, have a participial adjective in the second half of the seventh line. It reads:

Pleye dremyng and slepyng at the daunce

With this as authority we may further modify the seventh line to read:

Pleye in slepyng, and dremyng at the daunce.³⁹

The logic of this escapes us for two reasons. First, Chaucer's version is by no means a literal translation. Thus the fifth line of Granson's ballad is, "Baisser les yeux quant on doit regarder" but it appears in Chaucer as, "And doun to caste visage and lokyng". Similarly Granson's refrain, "Tout a rebours de ce qu'on vult trouver" is rendered by Chaucer as "Al the revers of any glad felyng." Thus the argument that the French contains *Plaindre* seems to us not a very strong one when applied to a poem so freely rendered by its translator.

Secondly, when one considers that every manuscript reading contains *pleye* and not *Pleyne*, it seems impossible not to follow the manuscript readings. Indeed, since the nine manuscripts are not derived from the same stemma but are, in fact, seen as descending from three separate stemmata, the probability of supposing the same error to have appeared in all manuscripts is remarkably small. It seems to us, then, that we have no recourse but to restore the original manuscript readings *pleye in slepyng*. Moreover, as will be seen below, the original manuscript reading makes much the better sense.

³⁹ The manuscript basis for this emendation is considerably weaker than for *Pleye in sleping*. If the emendation is accepted it will be seen that this passage illustrates a syntactic and semantic parallelism not unfamiliar to students of medieval rhetoric. If this emendation is not accepted, then the semantic parallel is the only one to be found in the passage. We shall opt for the full parallelism on the grounds that so slight an emendation, albeit with only meager manuscript support, yields an extremely complicated pattern which one cannot reasonably suppose is due to chance.

Now symmetry (chiasmus) is restored to the verses. Thus the fourth line begins as the seventh line ends and the fourth line ends as the seventh line begins. Indeed, the parts of the lines can be interchanged along the diagonals of an X.

Chaucer has developed, however, an even deeper symmetry among these lines. He has accomplished this by means of balancing infinitives against participial adjectives and gerunds in *-inge*. Thus both line four and line seven are not only reversals of one another, but they are also internally reversed as well. Line four begins with a participial adjective and an infinitive and ends with a reversal of this sequence, namely an infinitive and another *-ing* form, this one a gerund. Schematically it appears as:

adjective *-ing* plus infinitive ***
infinitive plus gerund *-ing*

In line seven the mirror image is also retained with an infinitive followed by a gerund and ends with a gerund followed by a prepositional phrase. Its schematic structure is:

infinitive plus gerund *-ing* *** adjective *-ing* plus noun

Thus the symmetry which balances line four against line seven, also balances each line against itself.

Consider now the fifth and sixth lines of (51). These lines are identically constructed. Each contains an adverb and a compound infinitival phrase consisting of an infinitive and two nouns. But notice that the placing of two identical lines between four and seven is precisely the same sort of device as that of constructing lines four and seven as mirror images of one another. In other words, line four and line five are mirrored in this verse by line six and line seven, in the same fashion that the first halves of line four

and line seven are mirrored by their second halves.⁴⁰

Next let us turn our attention from the syntactic to the phonetic devices exhibited in these verses. We have seen above that Chaucer opposes stressed variants in the same line for the sake of variety. Here, too, we find such opposition. Thus in line four the form *wepyng* is clearly dissyllabic and must therefore be stressed ⁱ*wepyng*. It is opposed, however, by the gerund *compleynynge* which, because of its rhyme with ⁱ*thyng* and ⁱ*lokynge* is to be stressed ⁱ*compleyn*¹*ynge*. Thus the phonetic opposition of ⁱ*wepyng* versus ⁱ*compleynnyng* complements the syntax of this line whereby the first half opposes the second. In other words, in precisely the same way that the line is a syntactic mirror image, so too is it a phonological mirror image with respect to stress. It is scanned as:

Wepyng to laugh and singe in
compleynynge

But now consider line seven in which the same phenomenon occurs, only this time with the *-inge* forms at the center of the opposition rather than at the extremes. It is scanned:

Pleye in slepynge and dremyng at
the daunce

Not only is the stress pattern identical with line four, but it also opposes precisely the same elements, namely the *-inge* forms.

⁴⁰It is worth noting that, in order to achieve this effect, Chaucer has seriously altered the French original. Thus Granson's fifth line, "Baisser les yeux quant on doit regarder" appears in Chaucer as "And doun to caste visage and lokyng." Indeed, it seems reasonable to suppose that the resultant symmetry provides a natural explanation for the changes Chaucer incorporated into his translation.

Thus, this stanza offers a complicated example of the way in which Chaucer manipulates the linguistic givens of his language for a poetic purpose. The obvious characteristic of these syntactic and phonological manipulations is that of opposition and, indeed, opposition of a special sort, namely reversal. And when one considers the sense of the stanza, Chaucer's intention becomes apparent. In these lines he is saying that the price one pays for Love is that the normal world in which one lives is topsy turvy. Thus because of Love, one lies awake in bed, fasts when he should be eating, cries when he wants to laugh, sings when he wants to cry, plays while he is sleeping and, at the dance, dreams instead of playing. Indeed, as Chaucer sums up at the end of the stanza, he suffers:

Al the reverse of any glad felynge

In other words, in this stanza Chaucer is manipulating sound, syntax and sense by means of the devices available on their respective levels, to reinforce the central theme of the stanza, namely the reversal of feeling brought about by love, the familiar Petrarchan paradox.

If, then, we were to edit this stanza in terms of the theory of prosody, stress assignment and the interpretation just presented, the stanza would appear as follows:

Now certis, Love, hit is right con-
venable
That men ful dere abyne thy nobil
thinge
As wake abedde, and fasten at the
table
Wepyng to laughe, and singe in
compleynynge,
And doun to caste visage and
lokynge
Often to chaunge hewe and con-
tenaunce
Pleye in slepynge and dremyng at
the daunce,
Al the reverse of any glad felynge.

APPENDIX

The principle stated above may be formalized in the following fashion:

Branching rule

- $$1. \quad V \rightarrow \# P_1 P_2 P_3 \dots P_n \# (s(s))$$

where V = verse

P = position

s = syllable

= verse boundary

() = elements enclosed thus
are optional; that is,
may or may not be
present

n = the total number of positions in the line; in the pentameter line $n = 10$; in the tetrameter line $n = 8$, etc.

Substitution transformations

- SD: # $P_1 X$
SC: 1 2 3 \rightarrow 1 Ø 3
(optional transformation)
 - SD: X P_n Y # Z

$$\text{SC: } 1 \ 2 \ 3 \ 4 \ 5 \rightarrow 1 \begin{Bmatrix} S \\ S_a \\ S_b \end{Bmatrix} + (s) \ 3 \ 4 \ 5$$

e n = 2, 4, 6 and/or 8

S = stress maximum

S_a = neutralized syllable
 S_b = weakly stressed syllable equal to adjacent syllables in stress

(s) = extra syllable assigned to P_n under *Conditions 1 and 2*

{ } = one of items so enclosed
must be substituted

(obligatory transformation)

(For significance of this formalism see reference in fn. 25.)

We mentioned in the beginning of this article that a meter was an abstract pattern which the poet uses as a basis of

selection to choose out of the infinitely many sentences of natural language those which qualify for inclusion in the poem. In the light of the above rules we now restate this view. The abstract pattern is defined by the branching rule. In particular there are three possible metrical patterns; one with no extra-metrical syllable, one with one such syllable, and one with two such syllables.

The substitution transformations state the conditions which any sentence or part of a sentence must meet in order to qualify as a realization of one of the patterns and therefore as a possible candidate for the iambic pentameter line.

Different branching rule and/or substitution transformations define different meters and metrical styles. Iambic tetrameter, for example, requires that $n = 8$ in the branching rule. A change in the second substitution transformation will change the podic composition of the line. Thus, for instance, by allowing stress maxima to occupy odd, rather than even, positions we obtain a trochaic rather than an iambic line. On the other hand, dropping the first substitution transformation eliminates headless lines. This substitution transformation may, therefore, be said to characterize the metrical style of the poet.

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