

Illustration and Defense of a Theory of the Iambic Pentameter

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# Theory of Prosody, Continued

Morris Halle Samuel Jay Keyser

# Illustration and Defense of a Theory of the Iambic Pentameter\*

In its May 1970 issue this periodical printed two articles which from widely differing points of view took issue with our theory of prosody first advanced in "Chaucer and the Study of Prosody" (CE, 1966, hereinafter CSP). In reacting to the criticisms it is not our purpose to correct every error or oversight that might have crept into our critics' papers or expose every flaw in their arguments. Our critics are not apprentices trying to learn a field but mature scholars, and to treat their works on a par with term papers written by students seems to us an irrelevance. Nor is it our purpose here to defend every position or opinion that we might have publicly espoused. We have been wrong in the past on more occasions than we care to remember, and we hope that in the future we shall possess the intellectual detachment to change our minds on positions that appear to us today to be quite settled, provided, of course, that valid and cogent arguments are advanced in favor of alternative views. Our purpose in reacting to the criticism of our theories is, therefore, not to prove that our critics are wrong and our own views are correct, but rather to learn more about the issues by examining in as much detail as possible the alternative solutions that have been proposed and by attempting to state clearly our reasons for preferring one over the other. We feel

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<sup>&</sup>lt;sup>1</sup> "The Rule and the Norm: Halle and Keyser on Chaucer's Meter," by W. K. Wimsatt (hereinafter RN) and "The Study of English Prosody: An Alternative Proposal," by K. Magnuson and F. G. Ryder (hereinafter SEP).

that our critics have approached our work in this spirit, and as a result all students of metrics will learn a great deal from their essays. In the pages that follow we have attempted to maintain the same high standards of scholarly debate that are exhibited in the studies by Professors Wimsatt, Magnuson and Ryder, and it is our hope that our performance has not fallen far short of our aims.

Between the appearance of CSP and that of RN and SEP three years elapsed. During that period certain changes in the theory were made by us, and these changes have anticipated some of the objections raised. The modified theory has appeared as the third chapter of our book, English Stress: Its Form, Its Growth, and Its Role in Verse (Harper and Row, February, 1971). A separate publication of the modified theory entitled "The Iambic Pentameter" is to appear with other papers on English prosody in a book edited by W. K. Wimsatt for the Modern Language Association of America. In order to facilitate the discussion which follows, then, we shall first present in a rather brief form our theory of prosody with its modifications.

#### Theory of lambic Pentameter (modified)

In our view all meters are rudimentary linear arrangements of abstract entities which are embodied in linguistic material by virtue of specific conventions (correspondence rules) that establish correspondences between the abstract entities of the meter and particular (phonetic) properties of words. When talking of abstract arrangements or patterns we have in mind simple arrangements such as might be described in everyday language as follows:

Four (things) in a row, all of a kind.

Six (things) in a row such that those in odd positions are of one type and those in even positions are of another type.

These patterns can be physically realized in an infinity of ways; i.e., by sequences of letters (aaaa; ababab); by arrangements of physical objects (flowers in a bed, beads on a string); by acoustical phenomena (beats on a drum); by bodily movements (steps in a dance); or, what is, of course, of primary interest here, by linguistic material (sequences of words having particular phonetic properties). The advantage of viewing meter in this way is that it allows us to explain readily one of the standard puzzles encountered in metrical studies, viz. how a large number of different arrangements of stressed and unstressed syllables (such as those exemplified in [2]) may all embody the same abstract metrical pattern.

We reproduce in (1) below the characterization of the iambic pentameter that we have proposed in our most recent studies. We will not attempt here to justify the proposal in all of its details. Rather it is hoped that interested readers will refer for this to the sources mentioned above.

(1) (a) Abstract Metrical Pattern
(W)\*SWSWSWSWS(x)(x)

<sup>&</sup>lt;sup>2</sup>Reference to this latter work is made by Wimsatt in fn. 1 of RN (p. 774).

where elements enclosed in parentheses may be omitted

where each x may be occupied only by an unstressed syllable<sup>3</sup>

- (b) Correspondence Rules
  - (i) A position (S or W) corresponds to a single syllable

to a sonorant sequence incorporating at most two vowels (immediately adjoining or separated by a sonorant consonant)

Definition: When a stressed syllable is located between two unstressed syllables in the same syntactic constituent within a line of verse, this syllable is called a "stress maximum"

(ii) Stressed syllables occur in S positions only and in all S positions

Stressed syllables occur in S positions only but not in all S positions

Stress maxima occur in S positions only but not in all S positions Let us consider how lines such as those in (2) (all taken from Shakespeare's sonnets) might be scanned in terms of the theory outlined in (1):

- a. When tyrants' crests and tombs of brass are spent (107.14)
  - b. Supposed as forfeit to a confined doom (107.4)
  - Cupid laid by his brand and fell asleep. (153.1)
  - Authorizing thy trespass with compare (35.6)
  - Of the wide world, dreaming on things to come (107.2)

We must first attempt to establish a correspondence between the abstract metrical pattern (1a) and the syllables in each of the above lines. According to (1bi) an S or W may correspond to a single syllable and we see that such a correspondence is indeed possible:

(3) When tyrants' crests and tombs of brass are spent S W S

We next check the location of unstressed and stressed syllables to see if, in accordance with the correspondence rule (1bii), stressed syllables occur in S positions only and in all S positions:

(4) When tyrants' crests and tombs of brass are spent

A comparison of (3) and (4) shows that each stressed syllable occurs in each S position and that each unstressed syllable occurs in each W position. Thus a correspondence between the abstract metrical pattern and the line has been established, and the line is thereby deemed metrical.

In the scansion above we have assumed a classification of all vowels into stressed and unstressed. This classification is not precisely identical with that

The \* after the initial (W) indicates the W is normally realized.

<sup>&</sup>lt;sup>3</sup>The condition that only unstressed syllables occupy an x position may not be invariant from one poet to another. Thus, a conceivable alternate condition might be one which allows the x to be occupied by a syllable containing any vowel other than one with primary stress. For Chaucer and the major poets of the Renaissance the condition given in (1) is correct.

given by English phoneticians and the differences must be made explicit here. We assume that metrically significant stress is borne only by major category words, i.e., by nouns, verbs, adjectives, nonclitic adverbs (such as therefore, however) and verbal particles (such as up in eat up). All other classes of words are metrically unstressed; this is true of conjunctions, prepositions, pronouns, pronominal adverbs (such as how, when) and copular verbs (such as is, are, have, etc.). We include among major category words any word with emphatic or contrastive stress. If a major category word has more than one stressed vowel only the main or full stress in the word is metrically significant, and we

indicate this by marking the fully stressed vowel with the accent -. Thus a word such as anticipate has two stressed vowels, of which only the antepenultimate is fully stressed since its stress is greater than the remaining stresses in the word. Only this stress is metrically significant. Notice that in a compound word like blackbird both stresses would count metrically since both stresses are the full stresses within their respective words, namely black and bird.

The line scanned in (3) and (4) above has been shown to be metrical by virtue of the establishment of correspondences between the abstract metrical pattern and the word sequence itself. This line is the most neutral sort of iambic pentameter line, and the correspondences to be established are quite straightforward. Recall now that our correspondence rules have several alternatives. We formally account for the fact that (2a) is the most common (what we refer to as the most neutral) line by virtue of the fact that in our theory the correspondences were established in terms of the first alternatives of the correspondence rules. To see how a line might be metrical even though it fails to correspond to the abstract metrical pattern in terms of an early alternative, let us scan (2b):

Notice that certain of the syllables are underlined. These underlinings indicate the failure of an early alternative of correspondence rule (1bii) to establish a correspondence. Thus the third S position is underlined because the first correspondence rule requires that every S be occupied by a (fully) stressed vowel, and the preposition to may not normally contain a fully stressed vowel. The same is true of the fourth S position. The prefix con- does not contain a fully stressed vowel and may not occupy an S position in accordance with the first alternative of (1bii). There are two underlines beneath the second syllable of confined. This is because this syllable violates the first and second alternatives of (1bii). It violates the first alternative because that alternative specifies that fully stressed syllables may only occur in S positions, and here we have a fully stressed syllable occupying a W position. By the same token it violates the second alternative because that alternative specifies that not every S position need be occupied by a fully stressed vowel. Thus, whereas the third and fourth S positions correspond to the abstract metrical pattern by virtue of the second alternative of (1bii),

no correspondence has been established thus far for the fifth W position. Thus, we underline it a second time. We now drop down to the third alternative of (1bii) which states that if there is a stress maximum in a line, it must occur in an S position. Otherwise the line is unmetrical. Notice that now the fifth W

position is no longer a violation of the meter because, even though -fined is fully stressed it is not a stress maximum since it is not located between two unstressed vowels in the same syntactic constituent.4

It is clear that the correspondences established between the abstract metrical pattern and (2a) are much more straightforward than those established for (2b). The theory in (1) provides a formal way of describing this fact. Thus the more complicated a correspondence the more underlines will appear in a line. In fact, we may take the number of underlines as a measure of a line's complexity: (2a) having a complexity of O and (2b) having a complexity of 4.5

The establishment of alternatives would not in itself be of special interest since it is always possible to arrange alternatives in some order. What makes the alternatives specified in (1) of special interest is that they are related to one another in a rather interesting fashion. Thus, later alternatives are generalizations of the earlier ones by virtue of the fact that later alternatives not only treat as metrical the class of lines so treated by the preceding alternatives but widen the class of metrical lines somewhat. Thus, the second alternative not only accounts for lines of the type (2a), but widens the class to include lines such as (6):

Finally, the third alternative not only accepts as metrical the class of lines accepted by the preceding alternatives but it widens the class to include all of the lines remaining in (2) and scanned below:

In spite of the fact that fully stressed syllables do not occur in S positions

<sup>5</sup>This rating corresponds roughly to the traditional notion of tension with (2b) exhibiting more tension than (2a).

<sup>&</sup>lt;sup>4</sup>The explanation given here obviates the need to suppose a special rule of stress shift in such phrases. Such stress shifts are rare in contemporary English and, indeed, their only justification is a theory of prosody which without recourse to stress shift would categorize lines containing such phrases as unmetrical. Since (1) obviates the need for this explanation, it also obviates the need for a rather dubious accent shift which must, in any case, be supposed to have come and then disappeared from the language.

the lines are metrical by virtue of the third alternative of (1bii) since none of these syllables constitutes a stress maximum. Thus the first syllables of (7a,b) are not located between two unstressed syllables since they are in line initial position. Similarly, the third positions in (7a,c) and the fifth position in (7c) contain fully stressed vowels which are, nevertheless, not stress maxima since they are not located between unstressed syllables in the same syntactic constituent.

In order to show that the theory outlined in (1) is not too accommodating we list the following two lines from Shakespeare's sonnets, so far as we can tell the only such lines, which are unmetrical in terms of (1) (but see pp. 173-175 below):

The syllables with three underlines are crossbarred to indicate that they fail to correspond to the abstract metrical pattern since they are stress maxima and yet appear in a W position, in violation of every alternative, especially the third of (1bii).

It will have been noted that among the lines that our theory classifies as unmetrical—i.e., as violating the canons of the iambic pentameter—are lines written by the greatest master of English verse. This clearly calls for an explanation since a theory of meter must above all characterize what poets are doing and not legislate what lines should or should not be judged metrical. The situation is analogous to that in which the grammarian finds himself. His task is to describe what speakers do, not to legislate to them. Yet clearly not every utterance of a fluent English speaker is a grammatical utterance of English: even the most fluent speaker will make false starts, get confused and fail to observe some perfectly ordinary rule, or violate certain rules of grammar to produce special emotional or stylistic effects. It would, therefore, be totally unrealistic if a grammarian accepted every recorded utterance of an English speaker as grammatical. Moreover, it is not always possible to determine whether a given utterance is or is not grammatical by interrogating speakers, for they are often unreliable judges about their own speech.

The grammarian is often helped in these difficult cases by the grammar that he has already developed. Thus he may find that if his grammar is to allow for certain constructions it must also at the same time rule out certain other constructions. Clearly the grammarian will seek in such cases external confirmation (such as speaker judgments, frequency, etc.) that the utterances which his grammar forces him to exclude are in fact ungrammatical, but the lack of such external confirmation will not necessarily lead the grammarian to accept an utterance as grammatical.

Many of the same considerations hold for the prosodist. He cannot accept

all verses written by any poet as metrically correct. A poet may write unmetrical lines for a variety of reasons, among which lack of skill or care are just two. The poet may also write unmetrical lines on purpose, to achieve particular effects. For example line (22) below is deemed unmetrical by our theory of the iambic pentameter (1), and this judgment seems to be confirmed as the correct judgment, for line (22) is a metrical pun.

A further class of lines which are, in terms of (1), unmetrical has been brought to our attention by Professor E. R. Weismiller, a sample of which are:

- (8') a. With sword of wit, giving wounds of dispraise (Sidney, Astrophel and Stella, 10.10)
  - b. Serves thy mind to invade the fight? is't best to set upon (Chapman, *Iliads* 13.285)
  - c. After forty days fasting had remain'd (Milton, PR. II.243)

It is Weismiller's view that the lines in (8') are modelled after an Italian original and that the accentual pattern they exhibit, the so-called "double trochee," was used by many poets during the late 16th and 17th centuries in imitation of this meter. If this is so, the lines in (8') would constitute a class of unmetrical lines written by certain Renaissance poets for poetic effects of a different sort than that achieved by Keats in (22).

If this explanation is not accepted and the lines in (8') are to be deemed metrical, the theory in (1) would have to be weakened to a point where it would lose much of its content. Alternatively it is conceivable that the theory in (1) should be replaced by a totally new theory that does not rule out the lines (8') yet is stronger, and hence more interesting than (1) would be if it were to be modified along the lines indicated. While such an alternative is conceivable, it does not exist. Moreover, it is conceivable that such an alternative theory may not be attainable. We have therefore chosen to maintain (1) in force without modification and regard lines such as those in (8) and (8') as unmetrical. Whether this is the correct decision only further work will tell.<sup>6</sup>

#### Reaction to RN

Professor Wimsatt has kindly remarked in his essay that CSP "... asks the right kind of questions about the nature of meter, and in my opinion gives some very good answers to some of these questions." What separates us from him can only be described, we believe, by the somewhat grandiloquent and often abused

<sup>&</sup>lt;sup>6</sup>The work we have in mind might include statistical investigations on the prevalence of lines such as those in (8'). If Professor Weismiller's explanation is correct, we might expect to find relatively few lines of this type in poets and in periods known not to be influenced by the Italian model. Since we have no statistical studies of this type for the major poets of the Renaissance, we are not in a position to judge how common lines like those in (8') are. A reading of the first thousand lines of Spenser's Faerie Queene yields three clear examples—I.12.9, II.36.4, III.7.9—which suggests that the so-called "double trochee" was far from common.

adjective "philosophical." It would seem to us that Professor Wimsatt's picture of science has a much stronger empiricist flavor than does ours. We venture to suggest that it is this which lies at the heart of Professor Wimsatt's dissatisfaction with our view that meter is an abstract pattern embodied in linguistic material by virtue of specific correspondence rules. Instead Professor Wimsatt wishes to regard meter as a norm. He observes that "meter is written and read with reference to a norm (the iambic pentameter norm is ten syllables, alternately and evenly less and more stressed), but this is a norm which is no ideal" (p. 787). The norm for him is thus a concrete arrangement of physical properties, a sort of metrical metronome which beats out the pattern: de-DUM, de-DUM, de-DUM as a base line over which a given line is read. Lines such as

The curfew tolls the knell of parting day

are perfect realizations of the norm, but the majority of lines written by our best poets exhibit greater or lesser deviations from the norm, hence the "norm is no ideal." This seems to us a curious way of formulating the issue. We prefer instead to state the problem in such a way that the large majority of lines of our best poets may be judged nondeviant, and we believe we come closer to this objective with the proposal in (1), where a given meter may by virtue of different correspondence rules be realized by many different arrangements of linguistic stresses, each of which is an equally perfect embodiment of the abstract metrical pattern, though of course not all are identical in complexity.

Professor Wimsatt is, of course, aware of the difficulty in which one is placed by a theory that implies that a majority of lines written by even the most careful poets is to some extent deviant. He attempts to remedy matters somewhat by the following:

It is not quite as if we had ironclad linguistic rules of stress, so that if we try to write a meter which does not quite illustrate these rules, we might as well write scientific prose and call it meter. For it is a fairly prevalent view, and I think a correct one, that the metrical pattern is not quite a mere result of linguistic arrangements, a mere inert epiphenomenon. The meter establishes a certain expectancy; it exerts a certain kind of coercion and performs a certain kind of self-assistance. It has assimilative powers. A quiet "promotion" of certain weaker syllables. . . . And so in my reading of Chaucer I very readily decide or tilt these levels in favor of the meter and without violence to any linguistic given.

He then gives three lines stressed as he would read them:

- A good Wif was ther of biside Bathe (A. Prol. 445)
  - b. The Millere was a stout carl for the nones (A. Prol. 545)
  - A whit cote and a blew hood wered he. (A. Prol. 564)

We do not know on what evidence Professor Wimsatt bases his assertion that "linguistic rules of stress" are not "ironclad." Our own work in this domain (see Halle and Keyser [1971] and Chomsky and Halle [1968]) as well as our

reading in the work of others suggest to us strongly that the linguistic rules of stress are every bit as ironclad as the linguistic rules of voicing, aspiration, or vowel lengthening. Moreover, a metrical theory which allows the meter to coerce us into departing from the "linguistic rules of stress" and to tilt the linguistically given stress levels "in favor of the meter" is virtually contentless, for by recourse to such tilting in favor of the meter almost any arrangement of linguistically given stresses may be rendered metrically acceptable.

The philosophical preference for an empiricist view of science appears to us also to underlie Professor Wimsatt's questioning of our claim that by postulating the theoretical entity "stress maximum" we are in fact explaining something that without such a postulation would remain unexplained. Professor Wimsatt writes:

But we may wonder a little still about the need of the stress maximum as an "explanation" of the inverted stress. We have seen how the doctrine of stress maximum operates at the other end of the line, coolly cancelling out an invariable strong stress which is much needed for the meter of the line. We have seen how the same doctrine dispenses with the more numerous lighter internal stresses in even position. . . . The fact that initial syllables of lines and phrases, even when in odd positions, can receive a strong stress without spoiling the meter of the line is undoubtedly connected with the fact that they are initial syllables and hence not strongly subject to metrical comparison with anything preceding. "Stress maximum" may be only a roundabout way of arriving at just that conclusion. (p. 784)

Far from being a "roundabout" way of arriving at this conclusion, it seems to us that the postulation of the theoretical entity "stress maximum" is precisely the correct route to take. We observe that stressed syllables appear in W positions especially under the following three conditions: verse initially, verse-medially when one of the two adjacent syllables is also stressed or when it is separated from the syllable in question by a major syntactic boundary. With the help of the stress maximum concept we can readily express what stressed syllables in the contexts listed above have in common: none of them constitutes a stress maximum and it may, therefore, occupy a W position without violating the meter. If the "stress maximum" did not exist one should have to invent it to account for the facts just cited, and this is precisely what we have done.

The usefulness of the stress maximum concept is not unlimited: it cannot explain why stressless syllables appear in S positions of iambic lines or why in Chaucer there are relatively few stressless syllables in the tenth position of the line. Other principles have to be invoked here. To account for the former we invoke the second alternative of correspondence rule (1bii); to account for the latter we invoke the fact that Chaucer wrote rhymed verse which normally requires identical stressed vowels in the tenth position of the rhyming lines. Chaucer differs in this from poets who wrote blank verse and who therefore could and did allow unstressed syllables in the tenth position of the line more freely. In any case the concept of stress maximum is "without interest" in the resolution of this question, as we specifically noted in CSP. We are puzzled at Professor Wimsatt's reaction to this innocuous and unexceptional remark and we do not understand how it led him to conclude that "the argument in favor

of a very special supposition, the importance of the stress maximum, leads immediately to our turning our backs upon something which Chaucer normally does, a normal feature of his pentameter verse" (p. 777). Since Professor Wimsatt is a most careful reader the fault must be in our exposition which we hope is corrected by the explanation above.

On pp. 778-782 Wimsatt argues in some detail against our position that secondary stress, both in single words and in minor category words is not metrically significant. After citing a line like:

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

he says:

But to my mind it is significant that these possible minor stress maxima (i.e. secondary stress on polysyllables and stresses on minor words such as prepositions) should fall so readily, as Halle and Keyser point out, in the correct iambic positions. If we know where they would fall if they did fall, that is a linguistic given. And I have less reluctance than Halle and Keyser to recognize these givens. (p. 779)

We explored at some length the idea that minor stress maxima should play a role parallel or identical to other stress maxima. We found, however, that minor stress maxima did not behave like other stress maxima in that they occurred quite freely in W positions. Thus along with lines like (10) Chaucer wrote many lines like those in (11) where minor stress maxima occupy W positions which would be a clear violation of the meter if they had been classed on a par with other stress maxima.

- a. Was never capitayn under a kyng (B. Mk. 3741) (11)
  - b. 'Hoste,' quod he, 'I am under youre yerde (E. Cl. 22)
  - That was *under* a rokke y-grave (BD. 164)
  - d. Of hym that is *undir* his cure (RR. 6451)

There are, in addition, several lines in RN itself which argue against metrically significant minor stress:

- a. Ful semely after hir mete she raughte (A. Prol. 136) (p. 780)
  - b. And also war hym of a Significavit (A. Prol. 622) (p. 785)
  - c. Ther was also a Reve, and a Millere (A. Prol. 542) (p. 785)

In (12a) if after contains a metrically significant stress in the initial syllable, the line must be treated as unmetrical. In (12b,c) if one supposes metrically significant stress on the minor word also then a dilemma arises. If the first syllable is metrically significant, then (12b) is metrical and (12c) is unmetrical. If it is the second syllable, then the metricality of the lines is reversed. One cannot have it both ways. In sum, the stress in minor category words does not function metrically on a par with that of major category words.

The differences in philosophical viewpoint alluded to earlier emerge again in Professor Wimsatt's discussion of our treatment of elision and syncopation in Chaucer's verse. Professor Wimsatt comments:

And yet if there is any "explanation" for all the kinds of adjacent syllables which are

elided or syncopated in Chaucer's verse, this explanation must lie somewhere in the nature of some possible performance. Elided and syncopated syllables in verse, whether or not their author and his first audience did run them together in speech, are those which both their own character and their position in the verse would make it easy for a reader to run together. (p. 782)

The observation that the conditions for dissyllabic position occupancy resemble phonetic processes is one with which we certainly would not disagree; in fact, we made just that observation in *CSP* (p. 213) ourselves. But it is not clear how the above takes us much beyond what was said there. The problem, after all, is how to deal with cases which are clearly deviant with respect to normal phonetic processes, for example:

- (13) a. Yet dearly I love you and would be loved fain (Donne, Holy Sonnet XIV)
  - b. And dotage terms so.

O sides, you are too tough (Lear, II.iv.200)

c. Is that the naked fellow?

Ay, my lord (Lear, IV.i.40)

d. Of what hath mov'd you.

It may be so, my lord (Lear, I.iv.296)

In the first case it seems quite unreasonable to suppose that any possible performance would ever elide -ly I and you and. But even if one were to allow this, the remaining cases clearly indicate the need for a more abstract view of the matter. In (13b) the sequence so. O must be viewed as corresponding to a single metrical position, while in (13c) the sequence -low? Ay must be construed as corresponding to two metrical positions. In (13d) the sequence you. It must be treated as a single metrical entity. In (13b-d) the break in the line indicates the end of one actor's speech and the beginning of another's. In what sense can one speak of an explanation "lying somewhere in the nature of some possible performance" with respect to these lines? Surely the actor speaking first cannot elide since he must, by normal stage conventions, be ignorant of what the other will say.

It seems to us that the matter is still where we left it in CSP; namely, the resemblance between our conditions and actual phonetic processes is strong. Since the conditions, however, go considerably beyond any known phonetic processes, it is not possible to regard them as special instructions valid only for reciting metrical verse. Instead they must be viewed as abstract conventions operating like other correspondence rules discussed above.

#### Review of SEP

We examine below the study of Magnuson and Ryder, SEP. We begin by noting an important equivocation in SEP. On p. 790 of SEP the authors write, ". . . we intend to propose an alternative theory which we feel is more general and more explanatory." We have assumed that this is their goal in what follows. In various places in their article, however, Magnuson and Ryder limit the appli-

cability of their rules to a single line by Donne and the 42nd sonnet by Shakespeare. If we suppose that in SEP Magnuson and Ryder have countered the theory in (1) with a theory whose sole domain is a single line by Donne and fourteen lines by Shakespeare, then SEP reduces to a study consisting of descriptive statements of precisely fifteen lines of English poetry. Clearly constraints that are valid only for a particular line or a particular poem cannot be falsified by referring to other lines written by the same poet or other poets, but by the same token such constraints are no more interesting than a myriad of other true remarks one could make about the 42nd sonnet such as:

- i. the sonnet begins with the word "the"
- ii. the sonnet ends with the word "alone"
- no line of the sonnet is longer than ten or shorter than 7 words
- iv. the total length of the sonnet is 130 words
- v. the sixty-fifth word of the poem "the" ends the seventh line
- vi. etc.

Why, under those conditions, anyone should be interested in Magnuson and Ryder's statements rather than in any of the infinitely many other statements that are also true of the fifteen test lines is totally obscure.

There are, however, indications in the article that Magnuson and Ryder do intend us to take their theory seriously as one being ". . . more general and more explanatory" than the theory proposed by Halle and Keyser. On p. 818 they adduce a hypothetical line:

## introduced grandfather to amuse friends

They note that this line is metrical in terms of the Halle-Keyser theory of prosody and go on to say, "The theory which we propose can not account for this text as an iambic pentameter line. We consider this to be an advantage of our theory. The Shakespeare Base Rules find six violations in this short segment." Now this criticism is completely empty if the Shakespeare Base Rules are meant to cover only the 42nd sonnet, since the hypothetical line does not occur in that sonnet and therefore cannot be part of the domain of lines for which their Base Rules were formulated. On the other hand, the criticism becomes cogent if we treat it in the light of the statement on p. 790 that the authors intend to present a theory which is both "more general and more explanatory." With these considerations in mind we feel justified in regarding SEP as a full-fledged theory and not as a set of descriptive statements about a corpus of fifteen lines. In what follows we treat the theory as one might treat any theory, namely by testing its generalizability, and we shall apply their Base Rules and our own rules to the body of Shakespeare's sonnets in an attempt to see which theory characterizes the data more adequately.

### The Magnuson-Ryder Theory

In the authors' view ". . . poetic meters are abstract patterns having no actual relation to the natural patterns of language. Meters place certain demands upon language having to do with simple contrast and alternation which language, being differently structured, is not fully able to meet. Prosody is the study of this "impossible" relation of language to meter" (p. 801).

In setting up their theory, they establish first a feature set consisting of four binary features; word onset (WO), weak (WK), strong (ST), and pre-strong (PS). We quote fn. 21 (p. 807) in which the meaning of these features is explained.

We list the features here with tentative definitions for English. (1) WORD-ONSET. A syllable is [+WO] if it is the first syllable of a word. (2) WEAK. A syllable is [+WK] if it belongs to one of the following categories: (a) monosyllabic Group One words (e.g., thy, and, when, in, so, now, then, there, here, he, it, hence, toward, o); (b) verbs with a potential auxiliary function regardless of whether the auxiliary function is present in the given instance (e.g., will, be, have, shall, can, must, may); (c) unstressed syllables of polysyllabic words (forty, besiege, trenches, thriftless, succession, excuse, the last two syllables of livery); (d) stressed syllables of polysyllabic Group One words (over, beside, under, thyself, every, unless, another, together, ever, and so forth). (3) STRONG. A syllable is [+ST] if it belongs to one of the following categories: (a) syllables having the character of primary stress relative to their immediate morphological context (e.g., father, another, succession, mobilization, but not the first syllable in words of the type overcome). This definition assigns more than one [+ST] feature to certain compounds, for example: stormbeaten, blood-letting, heartrending, grand-father); (b) monosyllabic Group Two words (e.g., heart, takes, fine, growth); (c) monosyllabic Group Two components of compounds having a [+ST] syllable in the immediate environment (e.g., counterpart). (4) PRE-STRONG. A syllable is [+PS] if it belongs to one of the two categories: (a) any [-ST] syllable preceding a [+ST] syllable in a polysyllabic word (e.g., compare, complexion, before, the first two syllables of overcome, interrupt); (b) a [+ST] syllable which immediately precedes a [+ST] syllable in the same word (e.g., heartrending, grandfather, blackberry).

Since the authors postulate four binary features, it follows that they have established sixteen different combinations of these four features. They present a table in which these feature combinations are represented. We reproduce that table in (14):

(14) Alphabet		Features		Examples	
	wo	WK	ST	PS	
a	+	+	+	+	many, over, other, therefore
b	+	+	+	_	forgive, believe, triumphant
c	+	+	_	+	when, since, they, does, is
d	+	+	_	_	grandfather, love-kindling
e	+	_	+	+	beast, friendly, saw
f	+	_	+	_	
g	+	_	_	+	
ĥ	+	_	_	_	
i	_	+	+	+	before, another
j	_	+	+	_	patriotic, overcome, counterpart
k	_	+	_	+	say <i>ing</i> , pi <i>ti</i> ful

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1
                                             great-grandfather
                                            forgotten, counterpart
m
n
0
                                            death-bed, landscape, therefore
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The alphabet provides a shorthand designation of each possible feature combination for each syllable. It is possible, then, to represent the metrical properties of a line in terms of this alphabet:

(15) Batter my heart, three-personed God, for you.

(The use of the symbols O and E correspond to our use of abstract metrical entities S and W.)

Recall that the authors claim that prosody is the study of an "impossible" relation of language to meter. They make what they mean by this explicit on p. 808:

We assume, as indicated earlier, that all verse is in some degree unmetrical. To demonstrate this we place in the center of the theory what we call an Expectation Matrix. This matrix shows the relationship of feature to frame which would characterize a condition of absolute metricality.

This distribution as a totality is linguistically impossible ([+ PS], e.g. compare, in metrical odd being an automatic commitment to [-WO] in the following even).

Now it might seem that a major difference between the authors' view of prosody and our own has to do with the role of the metrical-unmetrical distinction in a theory of prosody. Thus, we take this distinction to be the fundamental one which a theory must make, while Magnuson and Ryder claim that "all verse is in some degree unmetrical." This difference is however purely terminological, for Magnuson and Ryder establish a set of Base Rules which ". . . make explicit the principles which underlie the poet's selection of certain kinds of verbal strings and his rejection of others" (p. 802). Thus Base Rules perform for the authors the same function that Correspondence Rules perform for us; namely, they specify which types of line the poet will select from among the infinite sequences of words for inclusion in his poem, and which types of line he will not select. We call this distinction metrical-unmetrical. The authors do not give this distinction a name, but reserve the name metrical-unmetrical for the rather different relationship between all actual utterances of a language and the impossible Expectation Matrix. We shall stick to our usage here. No confusion will arise from this, for in what follows we shall have nothing to say about the relationship which Ryder and Magnuson call by the same name.

Let us consider the Base Rules in the authors' system of prosody and how they operate. The authors provide a set of four Base Rules which they have devised for Shakespeare's sonnets. These rules appear in (16):

A few words about the form of these rules is in order. First, the symbol [F] on the lefthand side of the  $\rightarrow$  means any feature configuration. The subscript E (or O) means that the feature configuration so subscripted must be in an even (or odd) metrical position in order for the rule to apply. The dash (\_\_\_\_\_) indicates the position of the feature cluster which appears on the lefthand side of the arrow. The / means "in the environment." The feature indicated between the arrow and the / must be found in the feature cluster which occupies the \_\_\_\_\_ position. Finally, the X means any intervening position without restriction.

With the above in mind we translate the rules in (16) into ordinary language:

- (17) 1. In the environment immediately after a syllable which is in an even position and which is [+PS], any feature cluster must contain the feature [+PS].
  - 2. In the environment immediately after a syllable which is in an even position and which is both [-WO] and [+WK], any feature cluster must contain the feature [+WK].
  - 3. In the first even position immediately following or preceding any even position which is occupied by a [+WK] syllable, a [-WO] must also be a [+ST].
  - 4. In the first *odd* position immediately following an *odd* position which is [+ST], any feature cluster must contain the feature [-ST].

In our discussion above we cited five lines from Shakespeare's sonnets, all of which were metrical in terms of our theory (see [2]). Let us return to those lines, and examine them from the point of view of the Magnuson and Ryder system of prosody. As we would expect, the most neutral line, namely (2a), is metrical in both theories. Significantly, however, all of the remaining lines are metrical in terms of (1) but unmetrical in terms of the authors' theory. We repeat these lines here for the convenience of the reader:

- (19) a. Supposed as forfeit to a confined doom
  - b. Authorizing thy trespass with compare
  - c. Of the wide world, dreaming on things to come
  - d. Cupid laid by his brand and fell asleep

In (19a) the sequence confined doom constitutes a violation of (16.1) since the syllable con is [+PS] and is in an even syllable. (16.1) requires that such a syllable be immediately followed by a [+PS] syllable. However, -fined is not [+PS, hence the line is unmetrical in terms of their theory.

In (19b) the rule (16.3) is violated. Thus, the -ing of authorizing occurs in an even syllable and is [+WK]. (16.3) requires that the first even syllable before -ing must be [+ST] if it is [-WO]. The appropriate syllable is -or- which is [-WO] and [-ST]. Therefore, the line is unmetrical in terms of the authors' system of prosody.

With respect to (19c) the rule (16.4) is violated. Thus wide is [+ST] and is in an *odd* position. According to (16.4) the next *odd* position must be [-ST]. The next odd position in (19c) is occupied by dream-, and this syllable is [+ST]. Thus, the authors' theory provides that this well-known line is unmetrical.

Let us look, finally, at (19d). The authors provide us with a scansion of this line which we give in (20):

> d d d fcn

(20) Cupid laid by his brand and fell asleep (Sonnet 153)

Note, first, that they mark the word by with the letter d to indicate that the word contains the feature cluster [+WO, +WK, -ST, -PS], evidently mistaking the verbal particle by for the minor category preposition by. It is not clear to us what meaning the authors intended to impose on (20) taking by as a preposition. It is clear, however, that in the sonnet laid by is a transitive verb + particle construction with the meaning "put aside." The verbal particle by, then, is an instance of an f syllable in the authors' alphabetic notation. But even with this correction the line is still a violation of rule (16.2) by virtue of the sequence Cupid laid. The second syllable of Cupid, i.e., -id, is [-WO, +WK] and occupies an even position. Hence according to (16.2) the next position (to the right) must contain a [+WK]. However, in (19.d) the next position to the right is occupied by laid which is [-WK] and is, therefore, a violation.

The four violations above are not isolated instances. Thus, several other lines from Shakespeare's sonnets are unmetrical in precisely the same way in terms of the authors' system of prosody. We list those lines in (21):7

- (21) 1. Additional violations of (16.1)
  - a. Thy adverse party is thy advocate (35.10)
  - b. And from the forlorn world his visage hide. (33.7)
  - c. In pursuit of the thing she would have stay (143.4)8

<sup>&</sup>lt;sup>7</sup>The italicized syllables in the examples in (21) indicate the syllable sequences which are involved in the appropriate rule violation.

<sup>&</sup>lt;sup>8</sup>The number of violations of this type that occur in the sonnets increases if one also includes the lines which contain the words antique, unused, unknown and unear'd. Five contain the word

- 2. Additional violations of (16.2)
  - a. Making dead wood more blest than living lips (128.12)
  - b. Utt'ring bare truth, even so as foes commend (69.4)
  - c. Thy pyramids built up with newer might (123.2)
  - d. He learn'd but surety-like to write for me (134.7)
  - e. Nothing, sweet boy; but yet, like prayers divine (108.5)
- 3. Additional violations of (16.3)
  - a. Feeding on that which doth preserve the ill (147.3)
- 4. Additional violations of (16.4)
  - a. Shall Time's best jewel from Time's chest lie hid? (65.10)
  - b. Take heed, dear heart, of this large privilege. (95.13)
  - c. Give my love fame faster than Time wastes life: (100.13)
  - d. Three April perfumes in three hot Junes burn'd, (104.7)
  - e. Love's not Time's fool, though rosy lips and cheeks (114.9)
  - f. In the old age black was not counted fair, (127.1)
  - g. To thy sweet will making addition thus. (135.4)
  - h. But at my mistress' eye Love's brand new fired, (153.9)
  - i. Which from Love's fire took heat perpetual, (154.10)
  - j. Love's fire heats water, water cools not love. (154.14)

Implicit in SEP are two ways of dealing with at least some of these unmetrical lines so that they are no longer unmetrical. The first appears in fn. 13 (p. 796). Discussing, among other things, the words antique, confined, pursuit, unused, unknown and unear'd, the authors note that such words will cause difficulty for their theory and provide for that difficulty as follows: "Our practice is to assign stress, in such cases, after the relation of the word to the meter has been established." In other words, the authors deal with the relevant lines by setting up a stress variant metri causa. The introduction of this principle, of course, renders any theory vacuous, since with it any actual distribution of stresses may be made metrical. But equally damaging is the fact that by so doing

antique followed by a monosyllabic noun and in each line the initial syllable of antique occurs in an E position, thereby producing five additional violations of (16.1). Unused violates (16.1) in one line, as does unear'd. Unknown occurs in two lines which are violations of (16.1) so that the number of violations of this rule in the sonnets is 13. (For a criticism of how Magnuson and Ryder deal with these violations, see this page above.)

If one steps outside of Shakespeare's sonnets, the number of lines which exhibit this particular violation drastically increases. In Bridges (1901, 68-70) close to 40 additional lines of the type given in (21.1) are cited. These lines are drawn from Milton and from Shakespeare's plays, the latter being examples collected by Alexander Schmidt.

Special attention should be paid to the fact that in the 16th century noun/verb pairs like récord (noun) versus record (verb) were not systematically distinguished by stress. In the main, Shakespeare appears to have been very much like his contemporary Levins, author of Manipulus Vocabulorum (1570), with respect to stress in bisyllabic nouns. Thus, while later sources distinguished between pairs like súspect (noun) and suspéct (verb) Shakespeare and Levins exhibited final stress in both, i.e., suspéct. Indeed, final stress is attested in Shakespeare in nouns without corresponding verbs; for example, instinct, precinct, etc. Nonetheless, as H. Kökeritz (see reference below) suggests, there may well have been vacillation in Shakespeare, and one should not be surprised to find a small number of stress doublets in his work. These facts have long been observed by scholars and the reader is referred to Halle and Keyser (1971, pp. 117ff) and references there to Kökeritz' Shakespeare's Pronunciation for further discussion.

the authors fail to capitalize on the fact that in almost every case (the exception being pursuit [cf. 8b]) the syllable following the so-called stress variant is a fully stressed syllable. This fact is explained in terms of our theory (cf. [1]), for it admits such sequences as metrical.

The second way of dealing with unmetrical lines appears in their discussion (pp. 818-819) of a line analyzed in Keyser (1969a):

(22) How many bards gild the lapses of time

where it was argued that (22) is unmetrical by virtue of a stress maximum in the 5th and 7th positions. They point out that several lines in Shakespeare's sonnets contain stress distributions which match the type bards gild the. Some of these are:

- (23)a. When sparkling stars twire not, thou gild'st the even (No. 28)
  - b. But when my glass shows me myself indeed (No. 62)
  - Since my appeal says I did strive to prove (No. 117)

The authors are correct in pointing out that in terms of the theory of CSP as well as that of Keyser (1969a), which is a modification of that in CSP, the lines in (23) as well as (22) will be marked as unmetrical. We believe that this was a shortcoming and have modified the theory along the lines of (1). The modified theory admits as metrical the lines in (23), but still rules out (22), for lap- in the lapses of is a stress maximum in a W position. As noted in Keyser (1969a) this violation of the meter serves a definite purpose in Keats' poem.

In commenting on this pun the authors say:

We indicated above that we do not question the possible metaphor in the relation between the string gild the lapses and the meter of the poem. We tried, on the other hand, to show that the first of the stress maxima contained in this string cannot, in itself, be reasonably supposed to be participative in this possibility effect. If Keats is punning, the pun almost certainly lies in his momentary expansion of the limits of his prosodic system . . ." (p. 818, italic ours)

This seems to us an ill-advised move, for by invoking "momentary expansions of the limits of a poet's prosodic theory" any line can be made metrical. Thus this principle, like the stress variants metri causa, renders vacuous any theory which admits this principle, and must therefore be rejected.

We conclude, therefore, that neither of the two proposals that might permit Magnuson and Ryder's theory to judge the lines in (21) as metrical is acceptable. It follows then that by Magnuson and Ryder's theory the lines in (19), (21) and those referred to in fn. 8 are unmetrical, whereas (8a) is judged metrical. This is precisely the inverse of the judgment rendered by our theory given in (1). According to theory (1) the lines in (19), (21) and fn. 8 are metrical whereas those in (8) are not. The numerical disparity between the two sets above indicates that the theory (1) must be preferred to that proposed by Magnuson and Ryder. This numerical indication is, moreover, supported by the judgments of many prosodists, almost all of whom are on record as viewing lines such as those in (19), (21) and fn. 8 as metrical. Since Magnuson and Ryder's theory is seriously at variance with the intuitions of experienced readers as well as with the practice of poets we feel that it is inferior to the theory in (1) which does not suffer from these inadequacies.

# Criticisms of the Halle-Keyser Theory

We have shown that the theory proposed by Magnuson and Ryder is inferior to our theory and can, therefore, not be accepted as a valid replacement. To complete our task we must examine the objections urged by Magnuson and Ryder against our theory, for if these are shown to hold they may seriously undercut or even invalidate our theory. We note at the outset that we are concerned to defend the theory only in its latest version (1), for we have modified the earlier proposals, which Magnuson and Ryder criticize on a number of counts, precisely because we agreed with the criticisms. Thus on p. 797 Magnuson and Ryder observe that because in CSP we failed explicitly to require that extrametrical syllables be stressless, we admit as metrical, "inversions in the last two positions of trochaic lines and also in iambic lines showing feminine endings." We have corrected this error in the new version (1) of the theory by requiring that extra-metrical lines be stressless.9

On p. 798 the authors point out that "A small but compelling body of evidence argues specifically against the stress maximum principle. Compounds of the type heartrending (i.e., primary stress + secondary stress + unstress) are dislocated in the metrical grid." They give the following examples:

- (24) a. To dry the rain on my storm-beaten face (No. 34)
  - b. Some fresher stamp of the time-bettering days (No. 82)
  - c. And his love-kindling fire did quickly steep (No. 153)

The authors are correct in citing such lines as being difficult with respect to the theory presented in CSP and in Keyser (1969a). It was precisely because of lines such as these that the definition of stress maximum was modified.

Finally we are grateful to Magnuson and Ryder for pointing out that we were not consistent in our scansions and incorrectly provided full stress to words which do not belong to major syntactic categories. We note here, however, that none of the examples containing erroneous scansions becomes unmetrical when the errors are corrected.

The following two objections seem to us less well taken than the three just mentioned. On p. 799 the authors say: "In John Donne's line

Batter my heart, three-personed God, for you

Notice, finally, that the restriction of extrametrical syllables to unstressed syllables rules out line final inversions in trochaic meters as well (cf. fn. 3). In this regard we assume that the abstract metrical pattern for, say, trochaic tetrameter is something like (x) SWSWSWS (x).

<sup>&</sup>lt;sup>9</sup>The authors cite two hypothetical lines as being allowed by the uncorrected theory; namely, She keeps thee to this purpose, that her bequest and If it be betrayed, slander doth approve. The restriction that extrametrical syllables may not contain stressed vowels rules out the first line. The second line is not ruled out as an iambic pentameter line and it is not clear to us why it should be. Nor is it clear why the authors would conclude, even without the correction noted above, that the theory predicts that there should be an "enormous" number of such lines. The theory makes no numerical predictions. It allows, for instance, for lines with inverted first feet. Such lines occur in Shakespeare but surely their number is not "enormous."

Keyser finds no stress maxima. All linquistic stresses are presumably neutralized either by position in the line or 'major syntactic boundary.' What is the strength of a theory incapable of telling whether this is an iambic or a trochaic line? Another example from the Chaucer article (their scansion):

O Wombe! O bely. O stynking cod (p. 204)

Under their theory this could, as could the Donne line, be dactylic tetrameter or even the fourth line of an Alcaic ode. Again, we are baffled."

We are baffled by our critics' bafflement. Surely in their reading they have come across lines such as those in (25) which are metrically ambiguous. A theory which classed all lines unambiguously would be making an obviously false claim contradicted by, among others, lines which we have quoted in this connection in our past studies:

- (25) a. Twenty bookes clad in blak or reed (A. Prol. 294)
  - b. All the buds and bells of May (from Keats' Fancy)
  - c. From dewy sward or thorny spray (from Keats' Fancy)

Each of these lines is metrically ambiguous, and which of the possible meters (i.e., abstract metrical patterns) it corresponds to depends, of course, upon the meter of the poem in which it is found. (25a) is iambic, and though it could also be trochaic, it clearly is not, since the Canterbury Tales are not. Similarly, though (25b) and (25c) might easily occur in an iambic tetrameter poem, they are both trochaic as a glance at Fancy will attest.

On p. 815 the authors, after citing Shakespeare's 42nd sonnet in full, note that the theory in CSP treats three out of four consecutive lines as unmetrical. The unmetrical lines cited are:

- (26) a. Thou dost love her, because thou know'st I love her
  - b. Suff'ring my friend for my sake to approve her
  - c. If I lose thee, my loss is my love's gain

(26a) is thought by the authors to be unmetrical since love would receive greater stress than the surrounding syllables. With respect to the theory given in (1) above this line is clearly not unmetrical since both dost and love, being fully stressed, neutralize one another and therefore no stress maximum is realized in a W position. However, it is our view that the proper reading of the line requires contrastive stress on the first her which in this way is opposed to the second her. If this reading is correct, then the line is metrical by the theory in CSP, for the contrastive stress on her is greater than the stress on the verb love. While a reading without contrastive stress would not necessarily render line (26a) unmetrical, this is not true of the next two lines (26b-c). These lines are unmetrical in terms of (1) unless they are read with emphatic or contrastive stress on the italicized pronouns. The meaning of these lines does, in fact, demand this type of stress. It seems to us that Magnuson and Ryder's view of the metrical role that emphatic or contrastive stress may play is excessively strict:

We turn to another procedural problem more deeply disturbing in its implications: the question of emphatic stress. Halle-Keyser write, in rejecting the possibility that Chaucer's line

O E O E O E O E O E

That if gold ruste, what shal iren do?

can be aligned with the meter as we have marked it: '... this violates the sense of the line and the clear contrast implied between gold and iren' (p. 205). This sort of statement is the death of metrics. What Chaucer put into his iambic matrix is one thing, subject to one clear and unambiguous set of rules, which it is our task to discover. How one reads it and interprets it is another thing, subject to variations of interpretation, maybe as preponderantly in contrast to the metrical matrix as Halle-Keyser say it is here, maybe less so . . . We state simply that the presumed presence of emphatic stress does not constitute a sufficient reason to change the normal alignment of meter and verbal material." (p. 794)

Apparently the authors take the extreme position that emphatic stress is never metrically significant. This position seems to us untenable, for emphatic stress is a linguistic given and we see no reason to deny its metrical significance. The authors give the impression in the above passage that we use emphatic stress as a deus ex machina, and this is obviously a totally different matter against which all precautions must be taken. Such precautions have in fact been taken by us in the works under review:

- (26) a.... In general, we shall assume neutral stress distribution in the lines of verse which follow unless there are *strong* contextual reasons for supposing otherwise. (CSP, 188-italics ours)
  - b. It is always possible to appeal to a special explanation, such as emphatic stress to avoid difficulties . . . Recourse to emphatic stress, however, is expensive. For one thing, any word can receive emphatic stress and, with it as a metrical tool, one can make almost any line metrical. Indeed, recourse to emphatic stress is merely a less radical version of Ten Brink's "legitimate shifting of the stress for the sake of the meter" principle. We assume, most conservatively, that the linguistic givens of a language which the poet may not violate refer to language under normal stress assignment unless there are very strong contextual grounds for assuming otherwise. (Keyser 1969, 388)

Now it seems to us that precisely the conditions under which contrastive stress can be called into play are met in the three lines under discussion ([26a-c]). Observe that in this particular sonnet, Shakespeare uses personal pronouns 35 different times. The form of the poem is based upon the initial opposition between I on the one hand and you and she (her) on the other with a final resolution of the opposition in the closing couplet. This interplay among the three dramatis personae referred to by the pronouns I, you and she is greatly obscured when the pronouns are uniformly read as if they were clitics. In (26b) we would lose the contrast between my friend with clitic stress on my and my sake with contrastive stress on my. In (26c) the pronoun thee is the focus of the first clause. This structure is repeated in the first clause of the next line where the presupposition (i.e., losing) is the same, but the focus is her:

and losing her, my friend hath found that loss

Hence both thee and her would normally be given contrastive stress.

Thus the restrictions on emphatic stress are quite severe and its use in a theory

of meter is by no means a license so broad as to result in what Magnuson and Ryder call the "death of metrics."

#### Miscellaneous Comments

The above exhausts what seem to us the major points raised by Magnuson and Ryder. There are, however, a number of further points that require comment.

In fn. 7 (p. 790) the authors note: "We have not been able to understand why 'major syntactic boundary' is not in itself a sufficient condition for neutralization. This part of the theory is unclear. It may, in fact, have undergone some modification since the appearance of the original article. In any case, we find that Keyser in Reibel and Schane does not mark as stress maxima the words God and stand in his scansion of the lines 'Batter my heart, three-personed God, for you' and 'That I may rise and stand, o'erthrow me and bend' from John Donne. The two studies may be at variance on this point." If the authors will review the Reibel and Schane article, they will see that the definition of stress maximum was modified along precisely the lines they suggest: "... a syllable carrying more stress than either of the two syllables adjacent to it in the same syntactic constituent [italics ours] within a line of verse." Since neither God nor stand are in the same syntactic constituent with the following unstressed syllable, they are not, in accordance with the reformulation of the stress maximum principle, stress maxima.

On p. 802 the authors state one of their general assumptions about meter: "All meters are made up of alternation of even and odd positions which we label E and O." This statement is on its face false, as anyone familiar with French or Spanish syllabic verse can attest. In these verses correspondences are set up between abstract metrical entities and syllables without reference to anything save their syllabicity. One can always call these entities E and O, but to do so is pointless since such labels, being without any empirical consequences parallel to those in syllabotonic verse, would be empty. Abundant examples of meters without alternations are found in Keyser (1969b) and Halle (1968), both of which are cited by the authors.

In fn. 15, speaking of compounds like storm-beaten, etc. (cf. [24] above), the authors note: "An adequate theory of meter will, at least in its positional constraints, address itself to the remarkable fact that words of this class (or these classes) can apparently not be initiated in slots 1, 2, 4, 5, 6, 8, or 9." The authors are limiting themselves to the sonnets of Shakespeare, where the observation may well be correct; but because of the small size of the corpus it is likely to be a statistical accident, for outside of the sonnets one readily finds examples violating the putative constraint:

- a. Earthtreading stars that make dark heaven light (RJ. I.ii.25)
  - Or keep him from heart-easing words so long (Lucrece, 1782)

On p. 790 the authors say:

"The theory which Halle and Keyser proposed has been attacked, as far as we know, only by James Sledd. . . . Sledd's short article does not attempt to offer a systematic refutation of theory. His attack is directed specifically at Keyser's work with Old English alliterative verse. His objections are to the point and as far as they go largely convincing, but they are restricted mostly to the diagnosis of methodological deficiencies in Keyser's handling of his data. Sledd believes that the theory itself is seriously flawed, but these flaws are not specified in his attack."

Since Sledd (1969) dealt neither with the theory outlined in CSP nor with the abstract nature of prosodical theory, but confined himself almost exclusively to "Keyser's work with Old English alliterative verse" and to "methodological deficiences in Keyser's handling of the data," the first sentence of the above citation is not quite accurate and the paragraph which follows is without relevance to anything discussed by Magnuson and Ryder.

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